HUD Project #: 121-98095

October 8, 2020

Shannon Bergman
Department of Housing and Urban Development
Multifamily Insured Production
One Sansome Street, 11th Floor
San Francisco, CA 94104

Re: Adoption of Environmental Assessment Report
Gateway Family Apartments

The California Housing Finance Agency, as the HUD Responsible Entity for the aforementioned project, is adopting the Environmental Assessment report dated November 2019 which was prepared by AEM Consulting on behalf of the County of San Mateo. The report is being adopted to meet HUD's environmental review requirements related to the 542(c) Risk Sharing Program. A description of the adoption and changes to the existing report are outlined below.

Adoption Description

- A description of the current action;
  - The California Housing Finance Agency (CalHFA) as the Responsible Entity, is adopting Environmental Assessment dated November 2019 and prepared on behalf of the County of San Mateo. CalHFA will use the report for the Request for Release of Funds related to the 542(c) HUD/RS program.

- The name and date of the existing NEPA document that describes and analyzes the action;
  - Environmental Assessment prepared by AEM Consulting and dated November 2019 to obtain HUD approval for Project Based Section 8 Vouchers. Report was properly noticed and posted to the public. The report was submitted to HUD with a Request for Release of Funds (RROF). A copy of the signed Authority to Use Grant Funds (form HUD-7015.16) dated January 6, 2020 was received.

- A statement that the existing NEPA document has been reviewed and that there are no substantive differences between the current proposal and its associated environmental impacts and the proposal and impacts as described in the existing NEPA document and associated decision document;
  - The Environmental Assessment report was reviewed by AEM Consulting. There have not been material changes to the project or financing structure that would warrant modifying the existing report or preparing a new report.
  - The existing report was properly noticed and submitted to HUD with a Request for Release of Funds (RROF). A copy of the signed Authority to Use Grant Funds (form HUD-7015.16) dated January 6, 2020 was received.

- AEM Consulting and CalHFA will coordinate posting a FONSI notice and repost the report for public comment prior to submitting for RROF.

- A reference to correspondence documenting updated consultation if other required consultation processes have been updated;
  - Email #1 dated 9/4/2020 from Cinnamon Crake, AEM Consulting: Reviewed report and has found it adoptable. Confirmed that report can be adopted.

  - Email #2 dated 9/8/2020 from Cinnamon Crake, AEM Consulting: Providing an estimate to prepare FONSI/NOI RROF notice, distribution of notice, respond to comments, and preparation of 7015.15.

- Notification to the preparing entity; and
  - Email #3 dated 9/29/2020 from CalHFA to County of San Mateo: Notifying County of San Mateo of CalHFA's plans to adopt the Environmental Assessment report.

Changes to Environmental Assessment dated November 2019, prepared on behalf of the County of San Mateo by AEM Consulting

Page 2 Cover page:

- Responsible Entity:
  - California Housing Finance Agency

Page 9:

- Responsible Entity:
  - California Housing Finance Agency
    500 Capitol Mall, Suite 1400
    Sacramento, CA 95814

- Grant Recipient (if different than Responsible Entity): Same as Responsible Entity

- State/Local Identifier: 19-006-N

- Certifying Officer Name and Title:
  - Tia Boatman Patterson, NEPA Certifying Officer

- Direct Comments To:
  - Mirna Ramirez, Housing Finance Associate
    100 Corporate Pointe, Suite 250
    Culver City, CA 90230
    (310) 342-5419
    mramirez@calhfa.ca.gov

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- Description of Project (updated information highlighted):

Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025 (APN 055-383-560):

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560) for which 542(c) HUD Risk Sharing Insured financing is requested. The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A full time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room.

The current zoning of the property is R-4-S, High Density Residential which is appropriate for the proposal. The project proposes a density of 37.23 dwelling units per acre (du/acre). The existing frontage easement will be abandoned.

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- Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
    - The purpose of the proposal is to increase the number of affordable housing units in the City of Menlo Park. An increase of 58 affordable housing units will be accomplished by implementing the proposed project, by redevelopment of an existing 82 unit affordable housing project site at a higher density to achieve 140 total units on the 2.96-acre parcel.

Page 24:

- Funding Information (updated information highlighted):
    - Grant Number: 121-98095

- HUD Program: YHN 542(c)- HFA Risk Sharing- New Construction
- Funding Amount: $47,880,000
- Estimated Total HUD Funded Amount: $47,880,000
- Estimated Total Project Cost: $126,070,304

Page 89:

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]

The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Certifying Officer Signature: _____ Date: 10/13/2020

Name/Title: Tia Boatman Patterson, Executive Director

Environmental Assessment

Gateway Family Housing

1345 Willow Road
Menlo Park, California 94025
SAN MATEO COUNTY • CA

Determinations and Compliance Findings

for HUD-assisted Projects

24 CFR Part 58

November 2019

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov
espanol.hud.gov

Environmental Assessment

Determinations and Compliance Findings for HUD-assisted Projects

24 CFR Part 58

Project Identification:	Gateway Family Housing 1345 Willow Road Menlo Park, CA 94025
Responsible Entity:	County of San Mateo, Department of Housing
Preparer:	AEM Consulting
Month/Year:	November 2019

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Appendix F – Historic Preservation

Appendix G – Noise

Appendix H – Soils and Geotechnical

Environmental Assessment

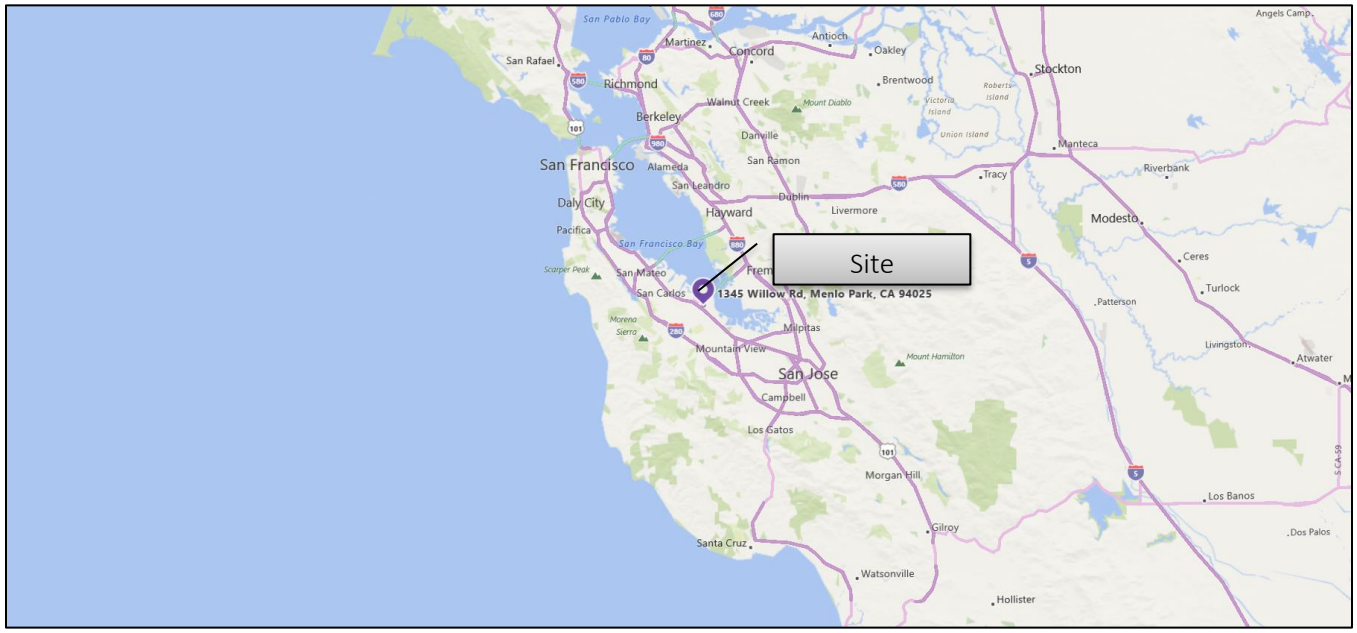
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58

Project Information

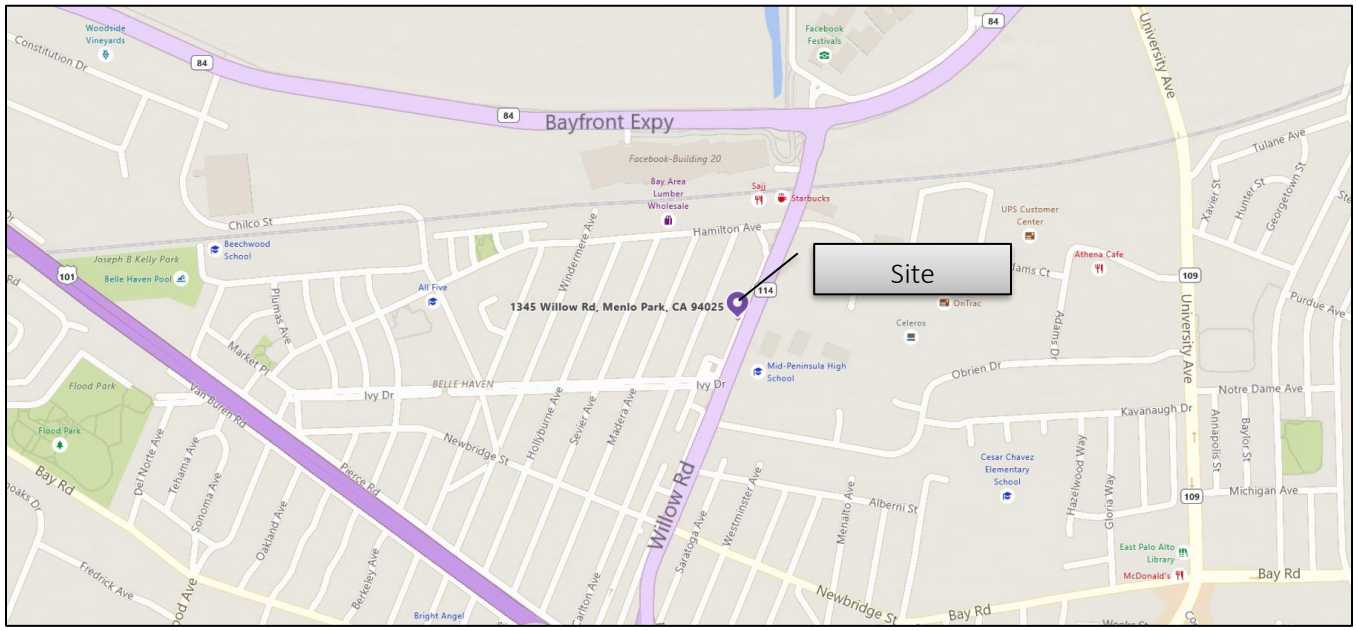
Project Name:	Gateway Family Housing
Responsible Entity:	County of San Mateo, Department of Housing 264 Harbor Blvd., Bldg. A Belmont, CA 94002
Grant Recipient (if different than Responsible Entity):	Housing Authority of the County of San Mateo 264 Harbor Blvd., Bldg. A Belmont, CA 94002
State/Local Identifier:	
Preparer:	Cinnamon Crake, Associate, AEM Consulting
Certifying Officer Name and Title:	Kenneth Cole, Director County of San Mateo, Department of Housing
Consultant (if applicable):	AEM Consulting 422 Larkfield Center #104 Santa Rosa, CA 95403 (707) 523-3710 aem@aemconsulting.net
Direct Comments to:	Ying Sham, HCD Specialist II San Mateo County Department of Housing 264 Harbor Boulevard Bldg. A, Belmont, CA 94002 (650) 802-3348 | ysham@smchousing.org
Project Location:	1345 Willow Road, Menlo Park, San Mateo County, California 94025 (APN 055-383-560)

Project Location

Gateway Affordable Senior Housing
1345 Willow Road
Menlo Park, CA 94025

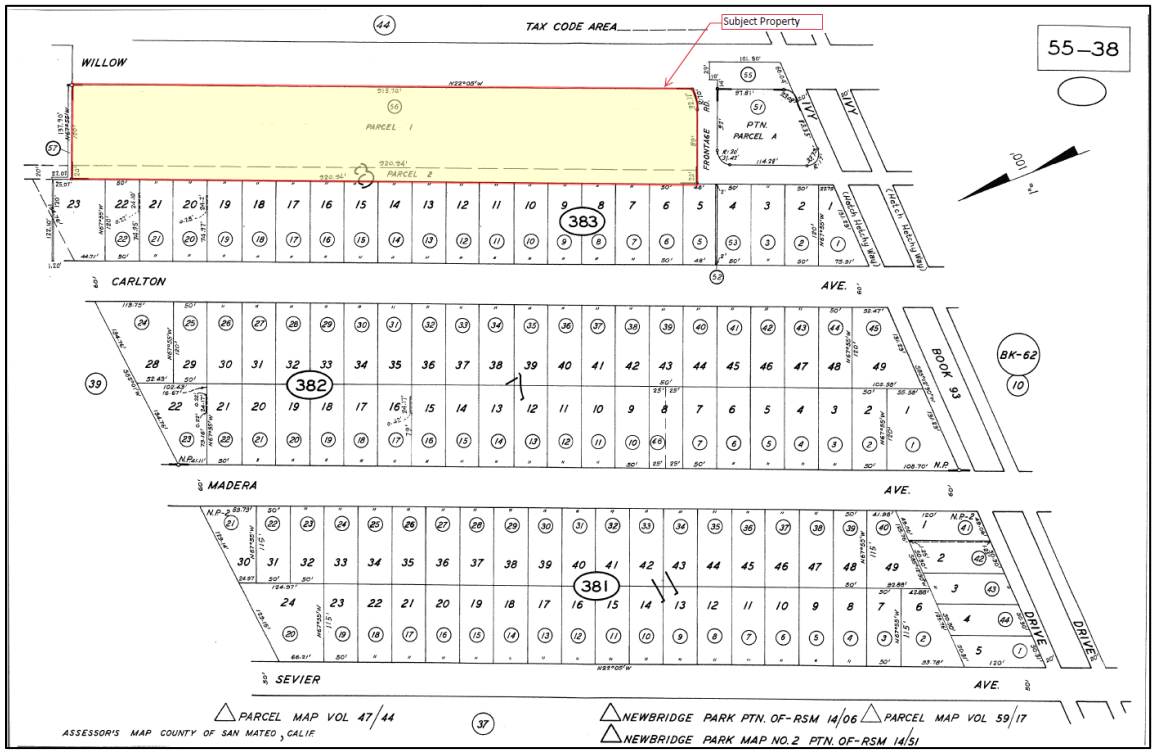


Map 1 Region



Map 2 Local Setting

Gateway Affordable Senior Housing
1345 Willow Road
Menlo Park, CA 94025



Map 3 Assessor Parcel Map

Figure 1 Bird's Eye View - Existing Conditions

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025 (APN 055-383-560):

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A part time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room

The current zoning of the property is R-4-S, High Density Residential which is appropriate for the proposal. The project proposes a density of 37.23 dwelling units per acre (du/acre). The existing frontage easement will be abandoned.

The target demographic is low-income families and will be 100% affordable housing.

Source: (1) (See Appendix A for complete Plan Set)

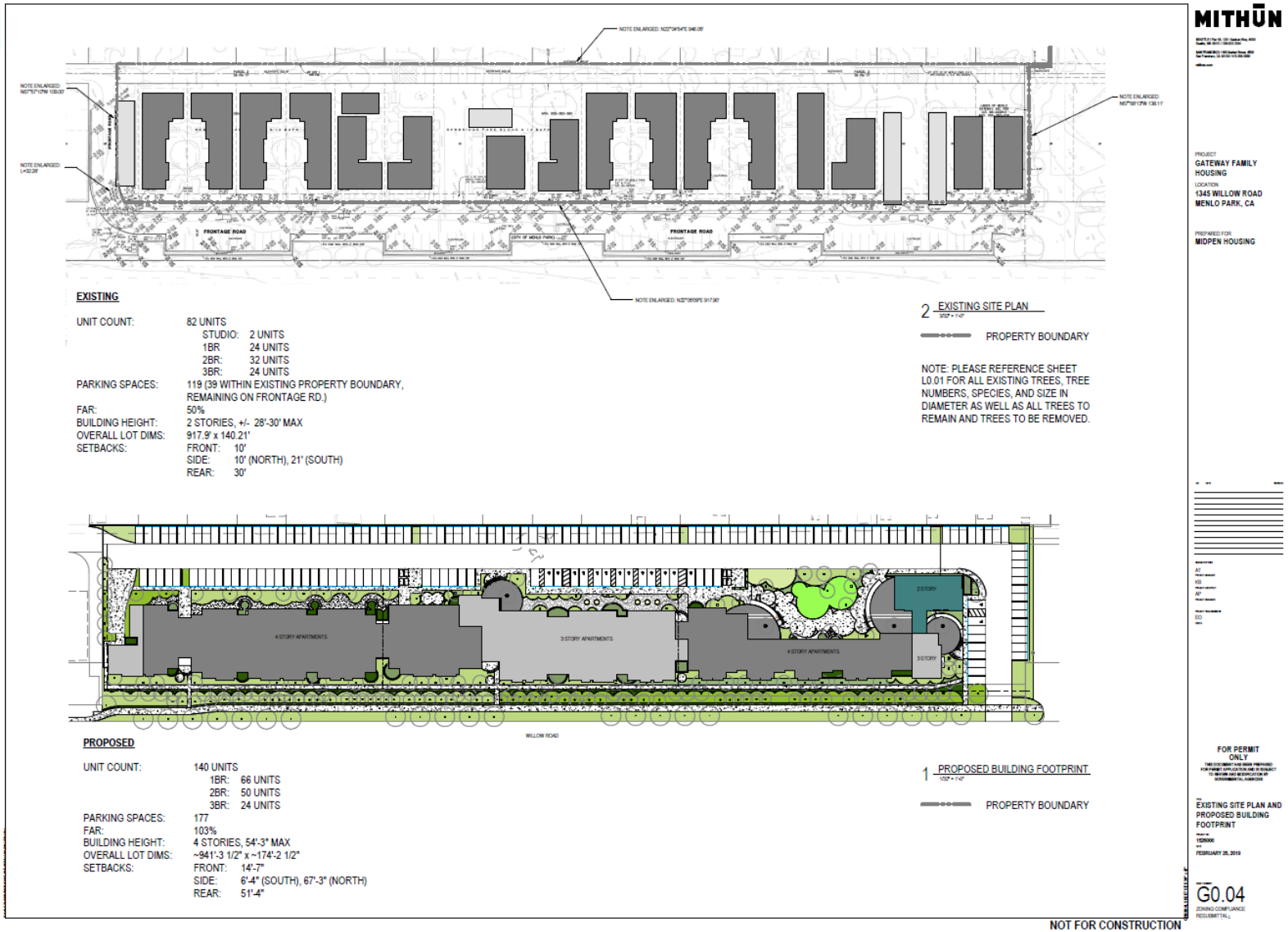


Figure 2 Existing and Proposed Building Footprint

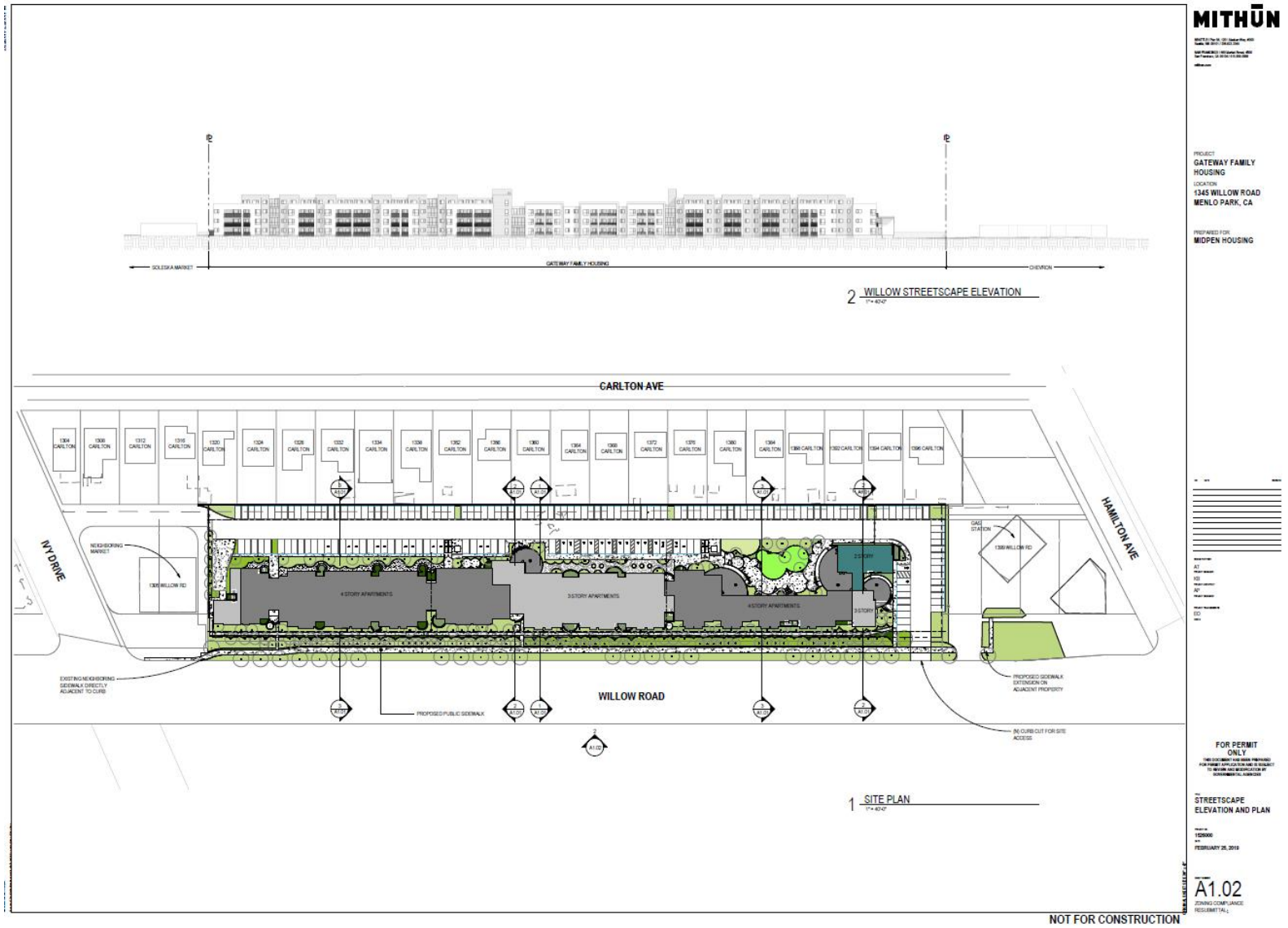


Figure 3 Site Plan

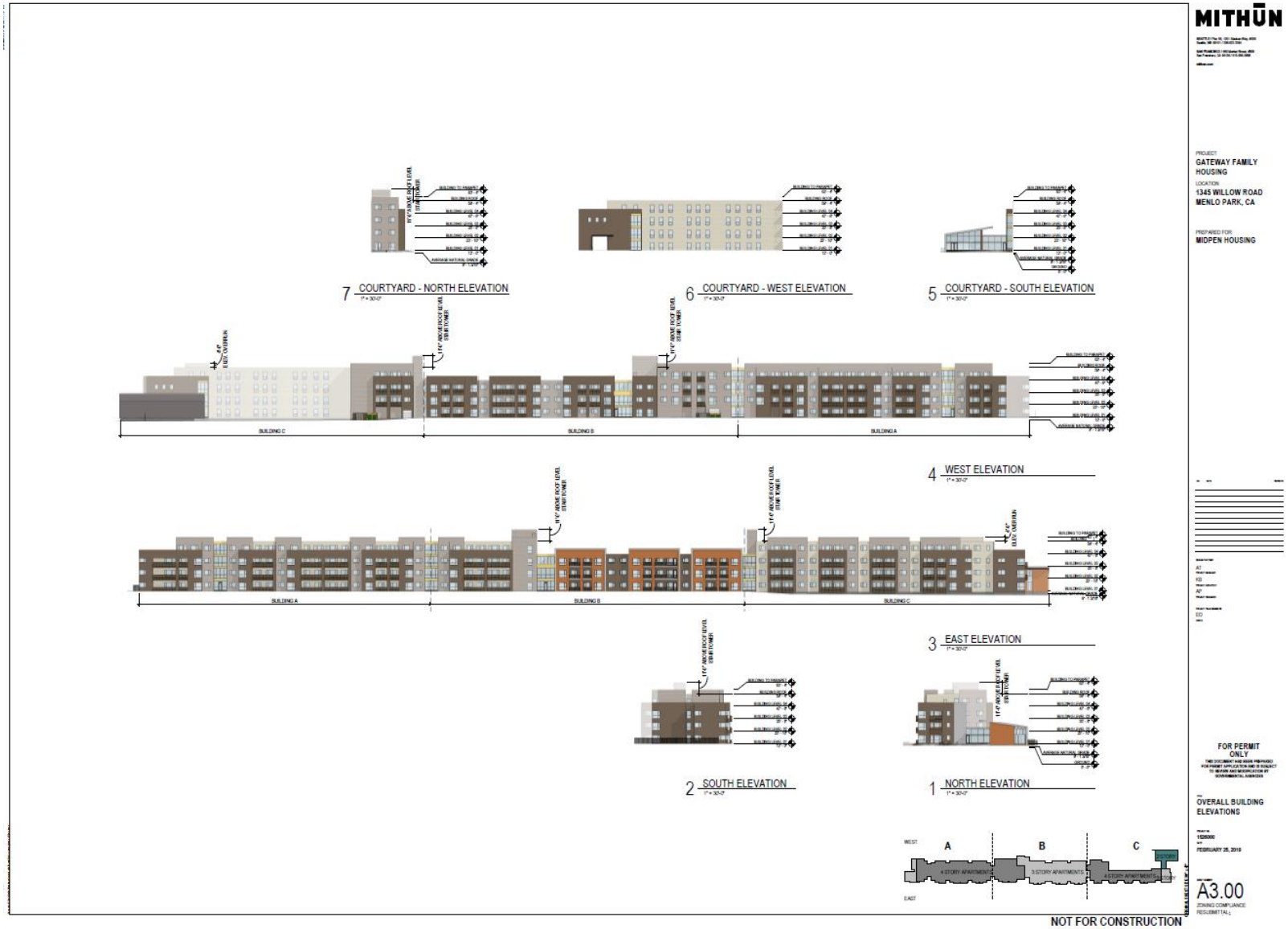


Figure 4 Elevations

Figure 5 Elevations

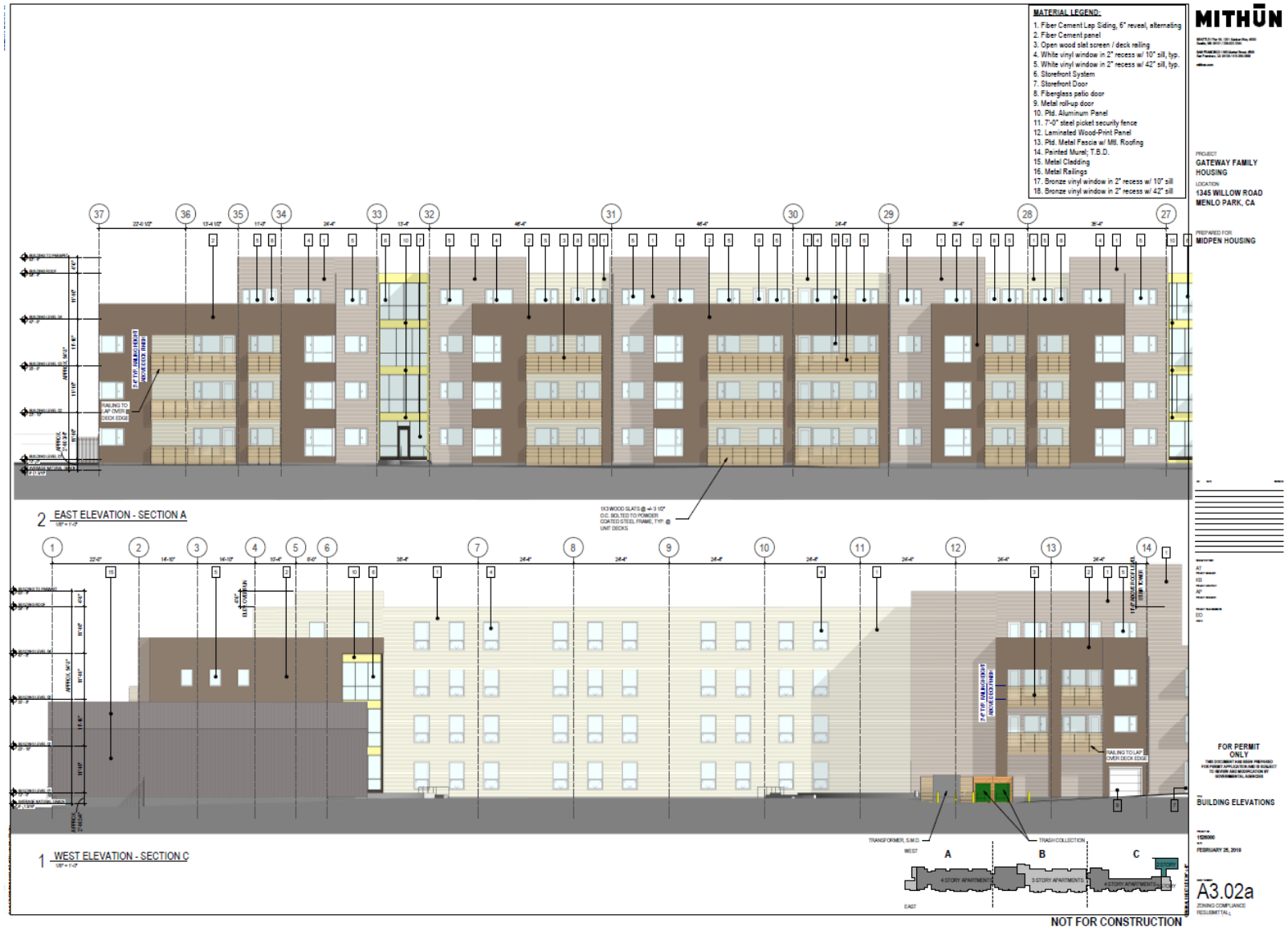


Figure 6 Elevations

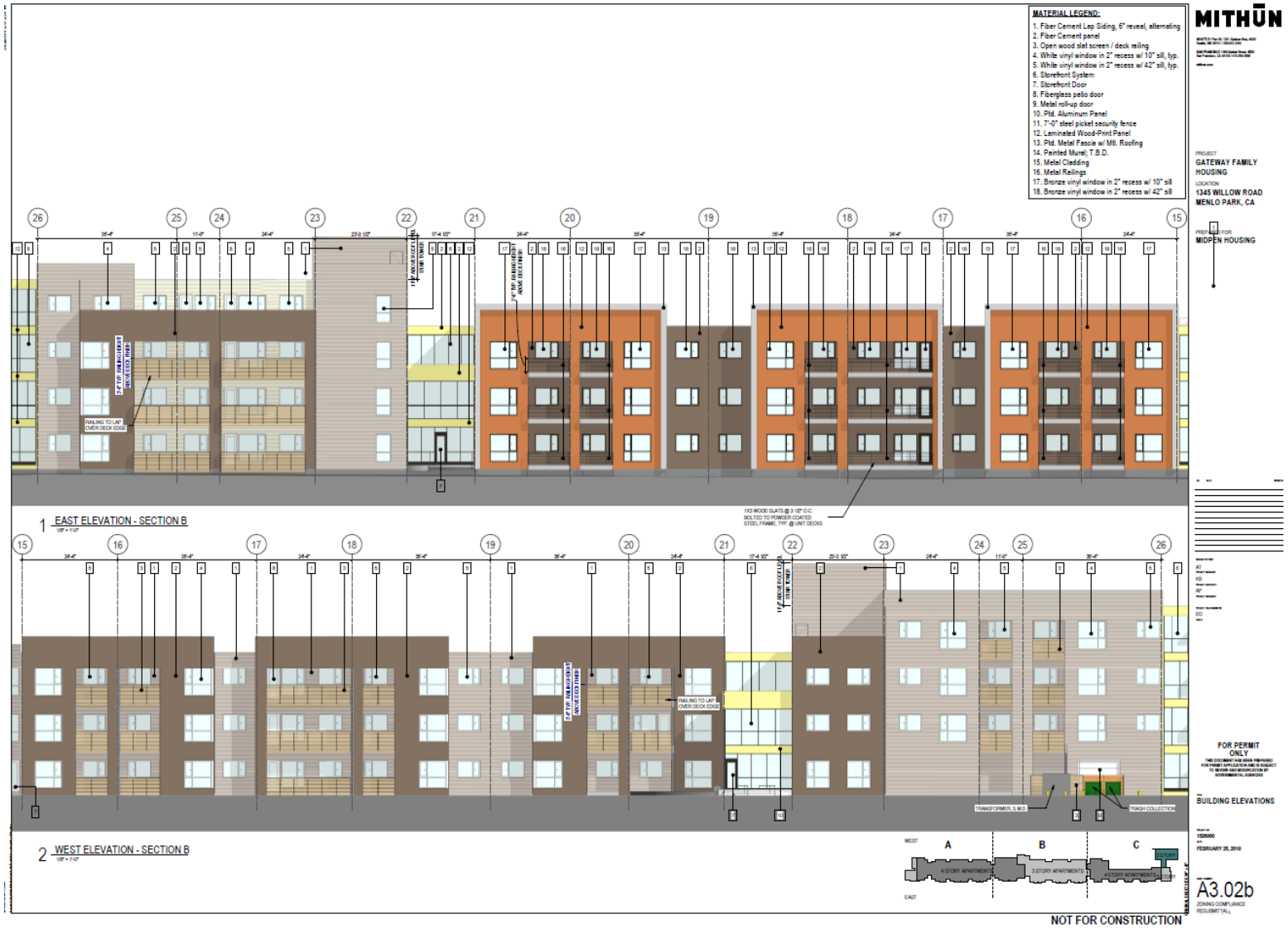


Figure 7 Elevations

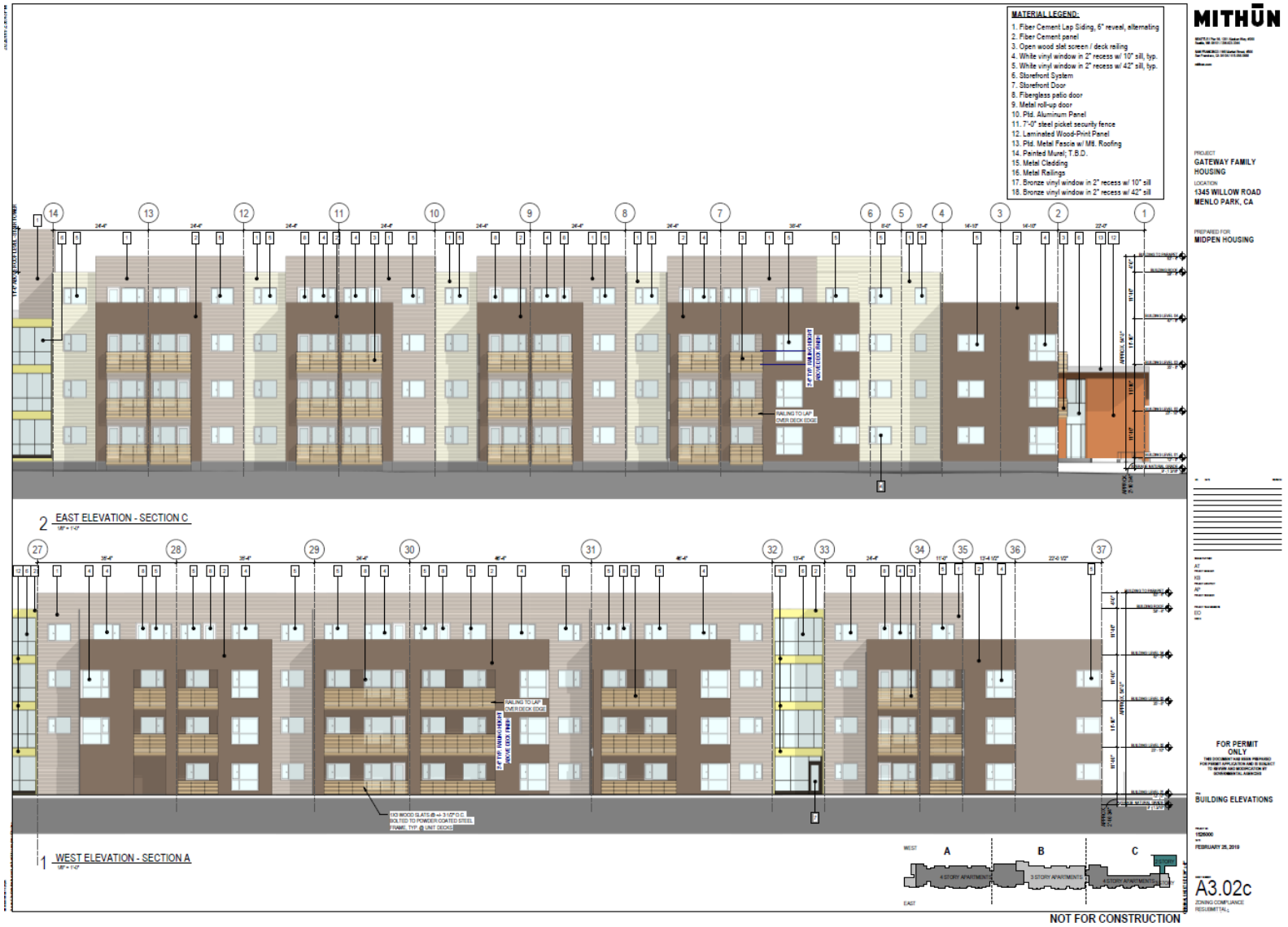


Figure 8 Elevations

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The purpose of the proposal is to increase the number of affordable housing units in the City of Menlo Park. An increase of 58 affordable housing units will be accomplished by implementing the proposed project, by redevelopment of an existing 82 unit affordable housing project site at a higher density to achieve 140 total units on the 2.96-acre parcel.

Regional Outlook

The San Francisco Bay Area (Bay Area) region has a population of approximately 7.2 million people. The Bay Area is the world's 21st-largest economy. The region's population is projected to swell to 9 million people by 2040. About one-fifth of the Bay Area's total population lives in areas with large numbers of low-income and minority populations. (2)

The Association of Bay Area Governments, in conjunction with the Metropolitan Transportation Commission and representatives from each of the nine Bay Area counties and cities, has drafted a strategy for a sustainable region named Plan Bay Area. Plan Bay Area grew out of California Senate Bill AB 375 "The California Sustainable Communities and Climate Protection Act of 2008" which requires the Bay Area to reduce greenhouse gas emissions from cars and light trucks. The law requires that the Sustainable Communities Strategy promote compact, mixed-use commercial and residential development. To meet the goals of SB 375, Plan Bay Area directs more future development in areas that are or will be walkable and bike-able and close to public transit, jobs, schools, parks, recreation and other amenities. The law synchronizes the regional housing needs allocation process with the regional transportation planning process and streamlines the California Environmental Quality Act (CEQA) process for housing and mixed-use projects that are consistent with the Sustainable Communities Strategy and are in close proximity to public transportation. Local governments have identified Priority Development Areas where new development will support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit. Priority Development Areas were established to address housing needs in infill communities and advance focused employment growth.

By 2040 the Bay Area is projected to add 2.1 million people, an increase of 30% or roughly 1% per year. The number of jobs is expected to grow by 1.1 million between 2010 and 2040, an increase of 33%, which is a slower rate of job growth than previous forecasts. During this same time period, the number of households is expected to increase by 27% to 700,000 and the number of housing units is expected to increase by 24% to 660,000. Single-family homes represent the majority of housing production in recent decades, but recent trends suggest that cities once again are becoming centers of population growth. Construction of multifamily housing in urban locations in the Bay Area increased from an average of 35% of total housing construction in the 1990s to nearly 50% in the 2000s. In 2010 it represented 65% of all housing construction. Demand for multifamily housing is projected to increase in developed areas near transit, shops and services.

The economy in the Bay Area is still recovering from the recession of 2007-2009, which has resulted in uneven job growth throughout the region, increased income disparity, and high foreclosure rates. At the same time, housing costs have risen for renters and, to a lesser degree, for home buyers close to the region's job centers. Bay Area communities face these challenges at a time when there are fewer public resources available than in past decades for investments in infrastructure, public transit, affordable housing, schools and parks.

Source: (2)

Local Perspective

According to the 2010 U.S. Census, San Mateo County had a population of 718,451. San Mateo County's population is expected to grow 26% to 906,072 in year 2040. San Mateo County occupies most of the San Francisco Peninsula just south of San Francisco and north of Santa Clara County. The County's built up areas are mostly suburban with some areas very urban, and are home to several corporate campuses. According to the Association of Bay Area Governments (ABAG), the San Mateo County Housing Needs Allocation 2014 to 2022, the City of Menlo Park should add 655 new units by 2022 in order to meet the needs for affordable housing.

Source: (3) (4)

Table 1 San Mateo County Housing Needs Allocation, 2014 to 2022

	Very low, < 50%	Low, < 80%	Moderate, < 120%	Above Moderate	Total
Atherton	35	26	29	3	93
Belmont	116	63	67	222	468
Brisbane	25	13	15	30	83
Burlingame	276	144	155	288	863
Colma	20	8	9	22	59
Daly City	400	188	221	541	1,350
East Palo Alto	64	54	83	266	467
Foster City	148	87	76	119	430
Half Moon Bay	52	31	36	121	240
Hillsborough	32	17	21	21	91
Menlo Park	233	129	143	150	655
Millbrae	193	101	112	257	663
Pacifica	121	68	70	154	413
Portola Valley	21	15	15	13	64
Redwood City	706	429	502	1,152	2,789
San Bruno	358	161	205	431	1,155
San Carlos	195	107	111	183	596
San Mateo	859	469	530	1,242	3,100
South San Francisco	565	281	313	705	1,864
Woodside	23	13	15	11	62
Unincorporated	153	103	102	555	913
San Mateo Total	***4,595***	***2,507***	***2,830***	***6,486***	***16,418***

The proposed project will be a positive contributor to meeting affordable housing needs.

Existing Conditions and Trends [24 CFR 58.40(a)]:

Existing Conditions

As of the 2010 census, the population of Menlo Park was 32,026. It is situated on the San Francisco Peninsula at the eastern edge of San Mateo County, in the San Francisco Bay Area of California. It is bordered by San Francisco Bay on the north and east; East Palo Alto, Palo Alto and Stanford to the south; Atherton, North Fair Oaks and Redwood City to the west. Menlo Park is one of the most educated cities in the U.S. with nearly 70% of its residents having earned an advanced degree.

According to the U.S. Census Bureau, the city has a total area of 17.4 square miles, of which 9.8 square miles is land and 7.6 square miles is water. The main street in downtown Menlo Park is Santa Cruz Avenue. Much of Menlo Park's economy centers around the companies on Sand Hill Road, consisting of venture capital, financial services, law firms, and other professional service companies and investment vehicles focusing on technology. Geron, Robert Half International, Exponent, Sunset and SRI International are among the companies based in Menlo Park. Facebook moved its headquarters to the former campus of Sun Microsystems in Menlo Park in 2011.

Menlo Park is located on the flatter portions of the south-western margin of the Bay, east of the San Andreas Fault zone, which limit scenic vistas within the City. However, due to the flat nature, the majority of the City, particularly from the north and east of Highway 101, are afforded views of the Santa Cruz Mountain Range, which runs the length of the San Francisco Peninsula and forms a barrier between the Pacific Ocean and the Bay. Scenic resources also include the Bay itself and its natural features as viewed from the eastern and northern portions of the City, and the densely vegetated riparian area lining the open water of San Francisquito Creek seen from views along the city's southeast border. The grassy foothills, which are part of the larger Stanford foothills, provide the visual backdrop to the west of the City.

Site Characteristics

The subject property is occupied by residents in multiple pre-fabricated homes built in the 1960s. There are 82 residential units housing in 17 buildings. The parcel is rectangular-shaped with the long edge bordering Willow Road, also known as State Route 114, an arterial roadway connecting Highway 101 and the Bayshore Freeway.

Trends

Income disparities in San Mateo County are some of the widest of any county in the United States. San Mateo County has one of the highest median household incomes of any county in the nation, and the cost of living is also very high. Forty percent of all households have an annual income of $100,000 or more. Twenty-three percent of county households live at or below 200% of the Federal Poverty Level ($47,000 for a family of four), and there are 25,000 households on the county-wide Housing Authority's Section 8 waiting list.

San Mateo County continues to be one of the least affordable places to buy a home in California. According to the California Association of Realtors, in the 3rd quarter 2012, the percentage of first-time homebuyers who can afford to purchase a median-priced home was 46%. This compares to the Bay Area average of 57% and the State average of 67%. Only San Francisco's index of 45% was worse than San Mateo County's.

Though mortgage interest rates are currently down, home prices are up again, having dipped and fluctuated in recent years. For the quarter ending December 2012, according to the San Mateo County Association of Realtors, the County's median priced single home sold at $779,500 and its condos/townhomes sold at a median price of $464,000. These sales statistics represented a price increase of 15.5% and 32.6% respectively from a year ago. The tighter inventory of homes for sale further contributed to the County's supply and demand dynamics. During this period, 549 single family homes were listed compared to 1,154 a year earlier; also another 125 condos/townhomes were listed in the same period versus 360 a year prior.

More affordable mortgage financing has led to fewer foreclosures by making refinancing an attractive strategy. The County's foreclosure rate dropped as have the Bay Area and the State overall. Notices of default in the County dropped from 908 to 506 between 3rd quarters 2011 and 2012.

A more robust housing market has reverberated to include the rental market. Rents are also up. Interestingly market rents and the HUD Fair Market Rents are at odds with each other. Rental data from RealFacts indicate that for the quarter ending December 2012, a 2-bedroom/1 bath unit is averaging $2,155 per month, an 11.7% increase from a year ago. Yet the HUD FMR for a 2-bedroom unit is $1,795 per month, a drop of 5.8% from a year ago.

Source: (5)

Given the size of the City and the relatively small size of the project (140 units), the project will not significantly impact local demographics, household incomes, real estate market factors, or employment trends. However, the project will enable 140 lower-income households to remain within the City and/or County, whereas they otherwise might be displaced to areas outside of the county, due to rising housing costs.

These trends are likely to continue in the absence of the project. The project will help to stem the trends outlined above.

Funding Information

Grant Number	HUD Program	Funding Amount
	Project-Based Section 8 Vouchers – CFDA No. 14.871	82 Vouchers

Estimated Total HUD Funded Amount: 82 Project-Based Section 8 Vouchers

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: $120,000,000

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	There is one major airport and three minor airports within 15 miles of the project site. San Jose International Airport lies approximately 14.7 miles south of the project site. Palo Alto Airport is a minor airport located 2.28 miles south; San Carlos Airport is 5.88 miles north; and Hayward Air Terminal is across the San Francisco bay at a distance of 12.74 from the site. No airport clear zone or accident potential zones extend to the site. Source Documentation: (6) (7) (8) (9) (10) (Appendix B)
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	The Coastal Barrier Resources Act of the United States (CBRA, Public Law 97-348), enacted October 18, 1982, designated various undeveloped coastal barriers, depicted by a set of maps adopted by law, for inclusion in the John H. Chafee Coastal Barrier Resources System (CBRS). Areas so designated were made ineligible for direct or indirect Federal national security, navigability, and energy exploration. CBRS areas extend along the coasts of the Atlantic Ocean and the Gulf of Mexico, Puerto Rico, the U.S. Virgin Islands, and the Great Lakes, and consist of 857 units. There are no Coastal Barrier Resources in California. Source Documentation: (11)
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☒ No ☐	The project site is located in a Federal Emergency Management Agency (FEMA) Flood Zone AE per Preliminary Flood Insurance Rate Map (FIRM) issued April 5, 2019. Zone AE is a designated Special Flood Hazard Area in the 100-year floodplain with a Base Flood Elevation of 11 feet above mean sea

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		level (msl). The entire site is located in the AE Zone. The mitigations will locate the project outside the floodplain by elevating residential units above the base flood elevation by a minimum of one foot (1') and seek the appropriate *Letter of Map Revision based on Fill* (LOMR-F) from FEMA after construction. An application for a Conditional Letter of Map Revision prior to construction has been submitted in May 2019. An 8-Step Decision Making Process was conducted in May 2019 and concluded that there was no practical alternative to locating the project in a floodplain. The project will construct the finish floor elevation of the buildings at least one foot above the base flood elevation and seek the appropriate Letter of Map Revision Based on Fill. *Mitigations Required* Source Documentation: (12) (13) (Appendix C)
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☒ No ☐	**Regulatory Setting** The Federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the Federal level, the United States Environmental Protection Agency administers the Clean Air Act. The California Clean Air Act is administered by the California Air Resources Board) at the State level and by the Air Quality Management District at the regional and local levels. The Bay Area Air Quality Management District regulates air quality at the regional level, which includes the nine-county Bay Area. **Operational Criteria Air Pollutant and Precursor Emissions Analysis** The Bay Area is considered a non-attainment area for ground-level ozone and PM2.5 under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations

for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM10) under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to predict construction and operational emissions resulting from implementation of the proposed project. CalEEMod is a statewide land use emissions model developed by the South Coast Air Quality Management District (SCAQMD) with input from other California air districts. The use of this model for evaluating emissions from land use projects is recommended by the Bay Area Air Quality Management District (BAAQMD). The project land use types and size, and trip generation rates were input to the CalEEMod model.

As shown in the table below, average daily and annual emissions of ROG, NOx, PM_{10} exhaust, or $PM_{2.5}$ exhaust associated with operation would not exceed the BAAQMD significance thresholds. Therefore, this impact is considered *less than significant.*

Table 2 Annual Air Pollutant Emissions from Operation of the Project (Tons/Year)

Scenario	ROG	NOx	PM10	PM2.5
Proposed Project	1.2416	0.8448	0.8781	0.2294
Annual Emission Thresholds	*10*	*10*	*15*	*10*
Exceed Thresholds?	***No***	***No***	***No***	***No***

Toxic Air Contaminates (TACs)

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, Carbon Monoxide (CO), Ozone (O3), Nitrogen Oxides (NOx), Sulfur Oxides (SO2), and suspended particulate matter (respirable and fine, PM_{10} and $PM_{2.5}$, respectively). TACs are found in ambient air, especially in urban

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants programs. CARB reports that recent air pollution studies have shown an association that diesel exhaust and other cancer-causing toxic air contaminants emitted from vehicles are responsible for much of the overall cancer risk from TACs in California. DPM can be distributed over large regions, thus leading to widespread public exposure. The vast majority of diesel exhaust particles (over 90 percent) consist of $PM_{2.5}$, which are particles that can be inhaled deep into the lung. Like other particles of this size, a portion will eventually become trapped within the lung, possibly leading to adverse health effects. While the gaseous portion of diesel exhaust also contains TACs, CARB's 1998 action was specific to DPM, which accounts for much of the cancer-causing potential from diesel exhaust. California has adopted a comprehensive diesel risk reduction program to reduce Diesel Particulate Matter (DPM) emissions 85 percent by 2020. The U.S. EPA and CARB adopted low sulfur diesel fuel standards in 2006 that reduce diesel particulate matter substantially. Common stationary source types of TAC and $PM_{2.5}$ emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to BAAQMD permit requirements.

<table>
<tr><th>Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6</th><th>Are formal compliance steps or mitigation required?</th><th>Compliance determinations</th></tr>
<tr><td></td><td></td><td>
The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships and trains.

Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. However, the proposed project would locate new residences near local roadways with average annual daily traffic (AADT) above 10,000 vehicles per day. Proximity to major roadways with a traffic volume of at least 10,000 AADT is associated with exposure to TACs or $PM_{2.5}$. In addition, stationary sources, such as gasoline stations and dry cleaners, are a source of TACs. The BAAQMD recommends using a 1,000-foot radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs.

A review of the area indicates that the proposed project would place new residences on one roadway and a single stationary source within 1,000 feet of the project site. The analysis of these sources used screening data provided by BAAQMD to identify the potential cancer risk and $PM_{2.5}$ exposure posed by stationary sources located within 1,000 feet of the project site.

Impacts from Local Roadways

The adjacent roadway Willow Road has been analyzed by the BAAQMD and the roadway segment in front of the project has a cancer risk of 6.617 in a million, $PM_{2.5}$ concentration levels of 0.05 mg/m^3, an acute Hazard Index of 0.006 and chronic Hazard Index of 0.011.

Table 3 Thresholds of Significance - Mobile Sources
<table>
<tr><th>Description</th><th>Screening Value</th><th>Thresholds</th><th>Exceeds Threshold?</th></tr>
<tr><td>$PM_{2.5}$ Concentration</td><td>0.066 µg/m3</td><td>0.3 µg/m3</td><td>No</td></tr>
<tr><td>Cancer Risk</td><td>8.774 in a million</td><td>10 in a million</td><td>No</td></tr>
<tr><td>Chronic Non-cancer Hazard Index</td><td>0.008</td><td>1.0</td><td>No</td></tr>
</table>
</td></tr>
</table>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations

Acute Non-cancer Hazard Index	0.013	1.0	***No***

All of these numbers are below thresholds. Therefore, the impact would be *less than significant*.

Impacts from Stationary Sources

The BAAQMD's Google Earth Screening Tool also provides locations of stationary sources of TACs and screening level exposures that do not account for the distance between the project site and the source. This tool was used to identify sources within 1,000 feet of the site. The following source was identified approximately 157 feet north of the nearest sensitive receptor.

Table 4 Thresholds of Significance - Stationary Sources

Chevron Gasoline Dispensing Facility			
Description	**Adjusted Cancer Risk**	**Thresholds**	**Exceeds Threshold?**
Cancer Risk	6.193 in a million	10 in a million	***No***
Chronic Non-cancer Hazard Index	0.01	1.0	***No***

The cumulative impacts to residents from all sources are listed in the table below.

Table 5 Cumulative Air Quality Impacts

Description	Screening Value	Thresholds	Exceeds Threshold?
$PM_{2.5}$ Concentration	0.066 µg/m3	0.8 µg/m3	***No***
Cancer Risk	15 in a million	100 in a million	***No***
Chronic Non-cancer Hazard Index	0.018	10.0	***No***
Acute Non-cancer Hazard Index	0.013	1.0	***No***

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		The exposure of new residents to stationary sources of $PM_{2.5}$ and other Toxic Air Contaminates is *Less than Significant*. **Odors** During construction, the various diesel powered vehicles and equipment in use onsite would create localized odors. These odors would be temporary and not likely to be noticeable for extended periods of time much beyond the project's site boundaries. The potential for diesel odor impacts is therefore less than significant. The proposed uses that would be constructed are not expected to produce any offensive odors that would result in frequent odor complaints; therefore this would be a less than significant impact. **Construction Emissions** Construction of the entire project was assumed to occur over an approximate 12-month period beginning in January 2020 with completion around December 2020. The model accounted for the demolition of the existing improvements. As shown below average daily emissions of ROG, NOx, PM_{10} exhaust, or $PM_{2.5}$ exhaust during construction would not exceed the BAAQMD significance thresholds. The CalEEMod model provided total annual $PM_{2.5}$ exhaust emissions (assumed to be diesel particulate matter) for the off-road construction equipment and for exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles), with total emissions of 0.1193 tons (239 pounds). The on-road emissions are a result of haul truck travel, worker travel, and vendor deliveries during demolition, grading and construction activities. A trip length of 0.3 miles was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.0407 tons (81 pounds) for the overall construction period. These values are all below the BAAQMD Thresholds of Significance. The project would have a *less*

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		than significant impact with mitigation measures with respect to community risk caused by construction activities. Carbon Monoxide Hotspots Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high localized concentrations of carbon monoxide. No significant CO hotspots are anticipated as a result of traffic generated emissions by the proposed project in combination with existing or cumulative traffic. Therefore, the mobile-related emissions from the project are not anticipated to contribute substantially to an existing or projected air quality violation and would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be *less than significant.* Greenhouse Gas Emissions Similar to regulated air pollutants, Greenhouse Gas (GHG) emissions and global climate change also represent cumulative impacts. GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts. The Thresholds of Significance for operational-related GHG emissions are: for land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 metric tons per year (MT/yr) of CO2e; or

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations

4.6 MT CO2e/SP/yr (residents + employees). Land use development projects include residential, commercial, industrial, and public land uses and facilities. For stationary-source projects, the threshold is 10,000 metric tons per year (MT/yr) of CO2e. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate. If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change.

The computed annual project emissions is metric tons is shown below.

Table 6 Annual Project GHG Emissions in Metric Tons

Mitigated	CO2 (Total all sources) (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	*CO2e (metric tpy)*
Area Source:	1.6980	0.00165	0.00	*1.7392*
Energy:	323.7447	0.0107	0.00439	*325.3209*
Mobile	560.7123	0.0216	0.00	*561.2514*
Solid Waste:	13.0726	0.7726	0.00	*32.3869*
Water & Wastewater:	23.1075	0.2981	0.00721	*32.7087*
Total:	922.34	1.10	0.0116	*953.4071*
			BAAQMD Threshold	***1,100 (MT CO2e per year)***
			Significance?	***No***

The project would incrementally generate greenhouse gas emissions; however, these emissions would not have a significant impact on the environment. The project would not conflict with any applicable plan, policy or regulation of an agency adopted for

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		the purpose of reducing the emissions of greenhouse gases. Impacts would be *less than significant.* **Conclusions** There would be an incremental increase in Operational Air Pollutant Precursor Emissions. However the amount does not rise to the level of significance per the BAAQD CEQA Guidelines. No CO hotspots are anticipated as a result of traffic generated emissions by the proposed project. Therefore, the mobile-related emissions from the project are not anticipated to contribute substantially to an existing or projected air quality violation and would not expose sensitive receptors to substantial pollutant concentrations. The project would incrementally generate greenhouse gas emissions; however, these emissions would not have a significant impact on the environment. The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Construction of the project would result in the temporary generation of NOx and PM_{10} emissions. Short-term air quality impacts are mostly due to dust (PM_{10}) generated by construction and development activities, and emissions from equipment and vehicle engines (NOx) operated during these activities. Dust generation is dependent on soil type and soil moisture, as well as the amount of total acreage actually involved in clearing, grubbing and grading activities. Clearing and earthmoving activities comprise the major source of construction dust generation, but traffic and general disturbance of the soil also contribute to the problem. Sand, lime or other fine particulate materials may be used during construction, and stored on-site. If not stored properly, such materials could become airborne during periods of high winds. The effects of construction activities include increased dust fall and locally elevated levels of suspended particulates. PM_{10} is considered unhealthy because the particles are small enough to inhale and damage lung tissue, which can lead to respiratory problems. PM_{10} emissions during project construction can be

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		reduced through compliance with institutional requirements for dust abatement and erosion control. *Impacts would be less than significant with Mitigations* *Mitigations Required* Source Documentation: (6) (14) (15) (16) (17) (Appendix D)
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The project site is located in the City of Menlo Park, an urbanized area on the San Francisco Bay Peninsula. The project is subject to requirements of the San Francisco Bay Conservation and Development Commission, as the designated governing body over the Local Coastal Program in the greater Bay Area. Activities requiring permit approval include: Filling: Placing solid material, building pile-supported or cantilevered structures, disposing of material or permanently mooring vessels in the Bay or in certain tributaries of the Bay. Dredging: Extracting material from the tidal waters. Shoreline Projects: Nearly all work, including grading, on the land within 100 feet of the Bay shoreline. Other Projects: Any filling, new construction, major remodeling, substantial change in use, and many land subdivisions in the Bay, along the shoreline, in salt ponds, duck hunting preserves or other managed wetlands adjacent to the Bay. The County of San Mateo in its Local Coastal Program issued policies in 2013. The site is designated as within an 'urban area' suitable for development because the area is 1) developed, 2) served by sewer and water utilities and 3) designated as an affordable housing site in the Housing Component. San Mateo County's Local Coastal Program governs development on the west side of San Mateo County along the Pacific Ocean. The project site is located in east San Mateo County, therefore is nearest the San Francisco Bay. The proposed project – does not involve activities within 100 feet of the shoreline. The project site is roughly 1 ½ miles from the

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		shoreline and therefore not immediately adjacent to the Bay. The project involves redevelopment at a higher density. A Coastal Development Permit is not required. Source Documentation: (18) (19) (20)
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☒ No ☐	**Phase I Environmental Site Assessment (ESA)** In May 2019, Integrated Property Analysis, Inc. (IPA) performed a Phase I Environment Site Assessment of Gateway Garden Apartment, 1317-1385 Willow Road, Menlo Park, California (subject property) utilizing accepted Phase I industry standards in accordance with ASTM Standard E 1527-13. A summary of their report follows. IPA performed a Phase I Environmental Site Assessment that included on-site observations of the accessible areas of The Gateway Garden Apartments (the "Subject"), on May 14, 2019. The Subject, constructed circa the 1950's, is currently a multi-family residential apartment complex. Prior to construction of the current improvements, the Subject was unimproved land possibly in agricultural use. Properties in the vicinity of the Subject include residential and commercial development including a gas station and a police substation under construction. The following summarizes the independent conclusions representing IPA's best professional judgment based on information and data available to us during the course of the assignment. Factual information regarding operations, conditions, and test data provided by the Client, owner, or their representative have been assumed to be correct and complete. Additionally, the conclusions presented are based on the conditions that existed at the time of the assessment. A Phase I Environmental Site Assessment was performed in conformance with the scope and limitations of ASTM Practice E 1527 of The Gateway Garden Apartments at 1317 – 1385 Willow Road in Menlo Park, California 94025. Any exceptions to, or deletions from, this practice are described in Section 3 of the

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		report (see Appendix D). The assessment has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the Subject. No further action or investigation is recommended at the subject property in relation to RECs. A Recognized Environmental Condition is defined by ASTM as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with the laws. "The term REC does not include de minimis conditions. De minimis conditions are defined by ASTM as environmental conditions that "generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." A summary of the findings for this assessment are described below. **Findings/Conclusions** <u>Historical Review</u> The review of the historical data available for the Subject and surrounding area revealed no evidence that may have lead to an environmental impact to the Subject. No further action or investigation is recommended regarding historical uses. <u>Operational Activities</u> IPA observed no circumstances of environmental concern associated with the operational activities at the Subject. No further action or investigation is recommended regarding operational activities at the Subject. <u>Hazardous Materials/Petroleum Products</u>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		Routine janitorial and maintenance supplies are used at the subject. The identified materials appear to be properly stored. The materials observed do not appear to pose a hazard to the Subject, provided they continue to be used as designed, are properly handled, and all regulations regarding their use are followed. No further action or investigation is recommended regarding the use of hazardous materials or petroleum products at the Subject. Wastes The Subject does not generate, treat, store, or dispose of hazardous, medical, or regulated wastes. Furthermore, the non-hazardous solid and liquid wastes generated at the Subject appear to be stored and disposed of properly. No further action or investigation is recommended regarding wastes at the Subject. Polychlorinated Biphenyls (PCBs) IPA identified utility-owned transformers at the Subject for which the PCB content is unknown. This equipment appeared to be in good condition with no evidence of leaks. The utility is the financially responsible party for maintenance of the transformers. No further action or investigation is recommended regarding the transformers at the Subject. Fluorescent lighting was observed to be present at the Subject. Because the Subject was constructed prior to 1978, IPA is of the opinion that some older fluorescent light ballasts at the Subject may utilize fluids potentially containing PCBs. Any fluorescent light ballasts at the Subject that are not clearly labeled as containing no PCBs should be disposed of in accordance with applicable federal, state and local regulations. Asbestos-Containing Materials (ACM) Asbestos-containing building materials (ACM) were identified at the Subject during a previous asbestos survey and inspection of the property in 2006 by Advantage Environmental and Safety Services Inc. A copy of the previous asbestos survey/assessment report is provided as an attachment. The report identifies asbestos in the following materials at the Subject: sheetrock and tape joint

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		compound, texture coat on sheetrock. All other building materials at the site not tested for asbestos (e.g. flooring materials, stucco, roofing materials, vent flues, window putty, insulation, adhesives, caulking, materials inside equipment, etc.) are presumed to contain asbestos until determined otherwise through testing performed in accordance with regulatory requirements. Based on the information contained in the previous asbestos report, IPA recommends an Asbestos Operations and Maintenance (O&M) program for the Subject for known and presumed asbestos-containing building materials. A properly designed O&M program is sufficient to maintain the Subject in accordance with current regulatory standards and sound business practice. ACM maintained with an O&M Program can remain in place, provided the ACM is in good condition, and remains intact and undisturbed. **Note that the existing improvements will be demolished.* <u>Radon Gas</u> Review of the USEPA's Radon Map for San Mateo County, California indicated that the Subject is located in Zone 2, areas with a predicted average indoor radon screening level between 2 and 4 pCi/L (picoCuries per liter of air). Based on the propensity, radon sampling was not performed as a part of this assessment. No further action or investigation is recommended with regard to radon gas levels at the Subject. <u>Lead-Based Paint (LBP)</u> Lead-based paint was identified at the Subject during a previous lead-based paint survey and inspection of the property in 2006 by Advantage Environmental and Safety Services Inc. A copy of the previous lead-based paint survey/assessment report is provided as an attachment. The findings in the report indicate that lead-based paint was detected at the property in ceramic tile and in stucco on the exterior of buildings. According to the report, "Lead was detected in most of the items tested that if disturbed may cause a lead hazard." No sampling or testing of the soil was included in the Advantage inspection. According to the Advantage report, "Any item that was tested and

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		found to contain no lead by XRF must be re-sampled and analyzed by Atomic Absorption for Cal-OSHA compliance." Based on the Advantage report and the pre-1978 construction date of the Subject buildings, all painted surfaces at the Subject are presumed to contain lead-based paint until determined otherwise through further testing performed in accordance with both federal and state regulatory requirements. The presumed lead-based paint at the Subject can be maintained under a Lead Paint Operations and Maintenance (O&M) program that includes remediation by a licensed lead-based paint abatement contractor of all damaged surfaces. A properly developed lead paint O&M Program is sufficient to maintain the property in accordance with regulatory requirements. Prior to repair, renovation, or demolition activities at the site, all painted surfaces should be sampled and tested or handled/removed as LBP in accordance with federal, state and local regulatory requirements. **Note that the existing improvements will be demolished.* <u>Lead in Drinking Water</u> Based on published utility department information, the water at the Subject is not expected to contain elevated levels of lead. No further action or investigation is recommended regarding lead in drinking water at the Subject. <u>Storage Tanks/Pipelines</u> No evidence of storage tanks or pipelines (above or below ground) was identified. No further action or investigation is recommended regarding storage tanks or pipelines at the Subject. <u>Surface Areas</u> No issues associated with surface areas were identified. No further action or investigation is recommended regarding surface areas at the Subject. Visual observation of the storm water system did not identify any abnormal accumulation of petroleum run-off or foreign material. No unusual blockages of the storm water control system were

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		observed. No unusual ponding of storm waters was observed. No further action or investigation is recommended regarding storm water systems at the Subject. <u>Mold</u> IPA performed a limited visual assessment for the presence of mold, conditions conducive to mold, and evidence of moisture in readily accessible areas of the subject buildings. No areas of significant mold or moisture were observed. No further action or investigation is recommended regarding mold at the Subject. <u>Regulatory Review</u> Based on review of the regulatory database report, the Subject is listed on the HAZNET database as a hazardous waste generator site for asbestos-containing waste and other organic solids. Review of the available information and discussions with knowledgeable personnel at the Subject site indicates that the waste was disposed of in accordance with regulatory requirements. No further action or investigation is recommended regarding the on-site regulatory review. No further action or investigation is recommended regarding the off-site regulatory review. <u>Vapor Encroachment Screen</u> Based on review of environmental records searched by EDR for the Tier 1 Vapor Encroachment Screen, IPA concludes that the Subject is not a listed site. The VES Area of Concern (AOC) identified several sites where, based on ASTM Standard E 2600-10, a Vapor Encroachment Condition (VEC) cannot be ruled out. However, it is IPA's opinion that adequate information was provided in a SWRCB file review, as discussed in further detail in Section 10 of the attached report, to determine that a Vapor Encroachment Condition from the AOC sites to the Subject is unlikely. Therefore, no further action or investigation is recommended regarding the Vapor Encroachment Screen. <u>Adjacent Properties</u>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		The site located adjacent to the east of the subject property across Willow Road is listed in the regulatory report as a California Envirostor Site and the site located adjacent to the south of the Subject is listed in the regulatory report as a leaking underground storage tank site as discussed in Section 9 of the attached report., and is also discussed in Section 10 of the report as a possible Vapor Encroach Screen (VES) hazard. Based on information reviewed for this assessment, further discussed in Sections 9 and 10, it is IPA's opinion that no current adjacent property uses are anticipated to have a negative impact on the environmental integrity of the Subject. No further action or investigation is recommended regarding adjacent properties. No other adjacent properties are anticipated to have a negative impact on the environmental integrity of the Subject. **Recommendations** The following on-site environmental items of note were identified: • Asbestos-containing materials and lead-based paint are known and presumed to be present at the Subject. *Mitigations Required* Source Documentation: (21) (Appendix D)
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☒ No ☐	**Species of Concern** The United States Fish and Wildlife Service list a number of endangered and threatened species that have the potential to occur on the project site. Mammals: • Salt Marsh Harvest Mouse *(Reithrodontomys raviventris)* Birds: • California Clapper Rail *(Rallus longirostris obsoletus)* • California Least Tern *(Sterna antillarum browni)* • Marbled Murrelet *(Brachyramphus marmoratus)* • Western Snowy Plover *(Charadrius nivosus nivosus)*

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		• Yellow-billed Cuckoo *(Coccyzus amerianus)* Reptiles: • Green Sea Turtle *(Chelonia mydas)* • San Francisco Garter Snake *Thamnophis sirtalis tetrataenia)* Amphibians: • California Red-legged Frog *(Rana draytonii)* • California Tiger Salamander *(Ambystoma californiense)* Fishes: • Delta Smelt *(Hypomesus transpacificus)* Insects: • Bay Checkerspot Butterfly *(Euphydryas editha bayensis)* • San Bruno Elfin Butterfly *(Callophrys mossii bayensis)* Flowering Plants: • Fountain Thistle *(Cirsium fontinales var. fontinales)* • Marin Dwarf-flax *(Hesperolinon congestum)* • San Mateo Thornmint *(Acanthomintha obavata ssp. duttonii)* • Show Indian Clover *(Trifolium amoenum)* **Critical Habitat** There are no critical habitats within the project area. No significant adverse impacts on wildlife habitat associated with the San Francisco Bay are anticipated as a result of project implementation. Existing roadways, parking lots, and structures separate the site from the nearby open waters of the San Francisco Bay. There is no designated U.S. Fish and Wildlife Critical Habitat on or adjacent to the site. **Project Impacts** None of the above or any other special-status animal species is expected to occur on the site due to the absence of suitable habitat. The site is fully developed and given the extent of

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		development surrounding the site precludes the occurrence of any species of concern. There are trees on the site; therefore the possibility exists that nesting by a number of special-status bird species, including more common raptor species protected under State Fish and Wildlife Codes and the federal Migratory Bird Treaty Act may occur on the site. The impacts of the proposed project on general vegetation and wildlife would be *less than significant* due to the absence of any sensitive natural community types, extent of surrounding urban development, and the limited habitat values of the site. In addition, there are no Habitat Conservation Plans or Natural Area Community Plans encompassing the site or vicinity. The City of Menlo Park Special-Status Plant and Wildlife Species figure that includes the site depicts that California special-status species that may occur on or near the project site are the Santa Cruz kangaroo rat, California least tern and San Francisco garter snake have the potential to occur on the project site. **Conclusion** No special-status plant or animal species have been reported from or are suspected to occur on the site due to the extent of past disturbance and absence of suitable habitat. There is no potential to affect endangered species. Development of the site would eliminate marginal, potential foraging habitat for several species of raptors. Destruction of raptor nests in active use is prohibited under State and federal law. Mitigations to protect these birds are required, prior to any construction. *Mitigations Required* Source Documentation: (22) (23) (24) (Appendix C)
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	The project will be located in an area surrounded by residential, public and commercial land uses; the project will not be located near any explosive or thermal source hazards.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		Source Documentation: (6) (7) (25)
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	Prime farmland is land best suited for producing food, forage, fiber, and oilseed crops and also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land but not urban built-up land or water). This project is located in an urban area built on bay mud fill, no longer suitable for or identified as farmland. The project will not affect farmlands. No federally designated Farmlands have been identified within the project area. There is no change in land use. Source Documentation: (6) (26)
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☒ No ☐	The project site is located in a Federal Emergency Management Agency (FEMA) Flood Zone AE per Preliminary Flood Insurance Rate Map (FIRM) issued April 5, 2019. Zone AE is a designated Special Flood Hazard Area in the 100-year floodplain with a Base Flood Elevation of 11 feet above mean sea level (msl). The entire site is located in the AE Zone. The project will locate the project outside the floodplain by elevating residential units above the base flood elevation by a minimum of one foot (1') and seek the appropriate *Letter of Map Revision based on Fill* (LOMR-F) from FEMA after construction. An application for a Conditional Letter of Map Revision prior to construction has been submitted in May 2019. An 8-Step Decision Making Process was conducted in May 2019 and concluded that there was no practical alternative to locating the project in a floodplain. The project will construct the finish floor elevation of the buildings at least one foot above the base flood elevation and seek the appropriate Letter of Map Revision Based on Fill. *Mitigations Required* Source Documentation: (12) (Appendix C)

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☒ No ☐	**Undertaking** The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings constructed in the 1960s. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. **Area of Potential Effects** The Area of Potential Effects (APE) includes the subject parcel and 25 of the surrounding properties, or 26 properties in all. The Area of Potential Effects for archaeology is the limit of the subject property, 2.96 acres in size, to the depth required for redevelopment of the site. **Evaluation** The subject parcel is currently improved with pre-fabricated buildings from the 1960s. The subject property consists of 17 one-story apartment buildings, 11 two-story apartment buildings, 1 one-story common area leasing office / laundry room / apartment building, and 1 one-story community / laundry room building. The project envisions demolition of these buildings prior to redevelopment of the site at a higher density. The structures are not associated with persons important in our past, broad patterns of history or the work of a master. They are unlikely to yield information important in history or prehistory. None of the subject property buildings appear eligible for the National Register of Historic Places. The City of Menlo Park, *Housing Element, General Plan Consistency Update, and Zoning Ordinance Amendments Environmental Assessment,* Cultural Resources section identifies the subject property as a potential target for higher-density development and determined that it does not appear eligible for the California

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		Register of Historic Places. No identified or potentially eligible historic resources are located on or near the project site in this document. There are no buildings on or near the project site that appear eligible for the National Register of Historic Places under any criteria listed. There are no buildings on or near the project site that appear eligible for the National Register of Historic Places under any criteria listed. No formal evaluations were warranted. **Archaeology** The site is currently developed and covered in buildings, parking areas, and landscaping, precluding a field survey at this time. It is highly improbable that archaeological deposits associated with the historic period of Menlo Park exist at the project site as the site has already been developed. In addition, it is highly improbable that unrecorded Native American prehistoric archaeological sites exist at the subject property, including those that are buried under alluvial or fill soils. Review of historical literature and maps indicated the possibility of historic-period activity within the Gateway Family Housing project area. An early San Mateo County map indicates the project area was located within the lands of J.P. Rynders. In addition, the 1943 Palo Alto USGS 15-minute topographic quadrangle depicts one building within the project area. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Gateway Family Housing project area. **California Historical Resources Information System (CHRIS) Records Search** A records search of the California Historical Resources Information System (CHRIS) was conducted by the Northwest Information Center, Sonoma State University on April 10, 2019 (File No. 18-1918). Review of pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Mateo County indicates

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		that there has been one cultural resource study that includes approximately 100% of the Gateway Family Housing project area. This project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no recorded buildings or structures within or adjacent to the proposed project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed Gateway Family Housing project area. Native American Tribal Consultation Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the San Francisco bayshore, inland near upland areas and ecotones, and near intermittent and perennial freshwater courses. The Gateway Family Housing project area is located in the Menlo Park area in the southwest portion of San Francisco Bay. The project area is located in Holocene alluvial fan deposits located approximately 270 meters south of the historic San Francisco bayshore margins. Given the similarity of one or more of these environmental factors and the ethnographic sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Gateway Family Housing project area. Conclusion The project area lies near the historic marsh margin, which was used extensively during prehistoric times for procuring resources, and often elevated spots near the marsh were used as village, camp, and resource procurement sites. The possibility of finding prehistoric archaeological resources within the project area is considered to be moderate. The potential for historic-period archaeological deposits is considered low. Given the potential for finding archaeological deposits on this parcel, it is recommended

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		that conditions of approval include a qualified archaeologist examine the subject property after asphalt, buildings, and fill soils have been removed, but prior to other ground disturbing, construction related activities. None of the adjacent properties are historic buildings, or designated as landmarks nor are they listed on the National Register of Historic Places. None of the structures in the Area of Potential Effects appear to be eligible for listing in the national Register of Historic Places. No prehistoric or historical archaeological sites were identified within the study area and no resource-specific recommendations are warranted. **Consultation** On April 25, 2019, the Agency Official initiated consultation with the State Historic Preservation Officer, with a letter and Cultural Resources Evaluation for Section 106 prepared for the project. The Agency Official concurred with the description of the undertaking and its Area of Potential Effects and with the recommended determination of no effect to historic properties as defined for Section 106, i.e., eligible for the National Register of Historic Places. On May 23, 2019, the State Historic Preservation Officer replied with a letter objecting to the determination of no historic properties affected by the undertaking. The reason given was the project site has a high sensitivity for archaeological resources, and further efforts to identify historic properties was needed. The letter requested either additional identification efforts or, if not feasible, development of a project-specific Programmatic Agreement, for the protection of historic properties, if present, during project activities. Subsequently, and in response, a *Site Sensitivity Analysis and Cultural Resources Management Plan* was developed. The Plan included additional study and procedures for protection of historic properties during construction. The Advisory Council on Historic Preservation was invited to participate in development of the Programmatic Agreement on

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		August 29, 2019. The Council declined to participate on September 27, 2019. A public *Notice of Preparation of Project-specific Programmatic Agreement for Historic Preservation* was published in the San Mateo County Times on October 8, 2019. The Notice informed the public about the development of a Programmatic Agreement for the project and invited interested parties and members of the public to participate the project. A copy of the Notice was also mailed to interested parties. No parties came forward or expressed interest within 15 days. A *Programmatic Agreement* was then developed and executed in October 2019. The CRMP is included as an attachment to the Programmatic Agreement. The developer is required to adhere to the Programmatic Agreement and any related reporting requirements at all times during implementation of the project, as described therein. *Mitigations Required* Source Documentation: (1) (22) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (Appendix F)
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	**Project-generated Noise** **Traffic** Community noise levels will not be significantly affected by the development. The only noise anticipated is from the normal automobile traffic generated from the project. As an affordable housing project, the trips generated, especially those during peak AM and peak PM hours can be expected to be less than a market-rate project. The Institute of Transportation Engineers, Trip Generation, 9th Edition for land use "221 – Low Rise Apartment at a net increase of 58 units, the project will generate an estimated additional 382 new trips per day during weekdays. An estimated 27 additional Peak AM trips and 34 additional Peak PM weekday trips will be generated by the project.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		The net new trips at 382 per day are not sufficient to cause a permanent increase in ambient noise in the vicinity of 1 dBA Ldn or more above existing conditions. Project impacts are considered *less than significant.* Substantial cumulative traffic noise increases are not anticipated along area roadways as a result of the project. Traffic noise levels along roadways serving the project site vicinity will typically increase by 0 to 1 dBA Ldn above existing levels under cumulative plus project conditions. This includes all future cumulative projects. A comparison of cumulative plus project and cumulative no-project shows that traffic noise increases attributable to the proposed project would be less than 1 dBA Ldn. The project would not make a "cumulatively considerable" contribution. **Construction Noise** Noise generated by demolition and construction activities on the site could cause a substantial temporary increase in noise levels at surrounding land uses including the single family homes behind the site. Hours of construction are restricted to between the hours of 8:00 AM and 6:00 PM Monday through Friday. **Operational Noise** The operation of the project would not generate noise levels that would be considered substantial in terms of existing or future noise levels in the area. Future noise levels in the project vicinity will continue to result from local transportation related noise sources. Occasionally audible noises from the proposed residential land uses will not measurably contribute to daily average noise levels at nearby noise-sensitive receivers. **Conclusion** Community noise levels will not be significantly affected by the development. The only contribution of the project to long-term noise levels would be from the normal automobile traffic generated from the project which will contribute to less than 1 dBA increase.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		The proposed project would temporarily generate noise during demolition and construction activities. Construction noise will be subject to the City of Menlo Park Noise Ordinance. Source Documentation: (6) (41) (42) (43) (Appendix G)
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	The project activities do not affect a sole source aquifer, as there are no aquifers subject to a MOU between EPA and HUD in San Mateo County. Source Documentation: (44)
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	The site does not appear on the National Wetlands Inventory database. The site is fully developed and contains no on-site wetlands or jurisdictional waters. No further consultations are required. Source Documentation: (6) (45) (Appendix C)
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	No wild and scenic rivers are located within San Mateo County. Source Documentation: (46) (47)
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The project will not raise environmental justice issues and has no potential for new or continued disproportionately high and adverse human health and environmental effects on minority or low-income populations. The project is suitable for its proposed use. Source Documentation: (6) (48)

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact

(2) No impact anticipated

(3) Minor Adverse Impact – May require mitigation

(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	1	**Comprehensive Plans** The 2015-2023 *Housing Element* of the General Plan for the City of Menlo Park identifies this particular site as targeted for higher density redevelopment. The Environmental Assessment for the Housing Element Update determined that redevelopment of the site at a higher density would have a *less than significant* impact. The project will in fact execute the goals identified in comprehensive plans. **Zoning** The project does not involve a change of land use. The subject property is zoned R-4-S – High Density Residential and currently contains 82 units. The parcel is 2.96 acres in size. An adopted Affordable Housing Overly (AHO) applies to the site that allows the planned 140 units after redevelopment of the site. The AHO allows for a density of 40.95 dwelling units per acre and 37.23 is proposed. Five stories or 60 foot height is allowed and the proposed project is 54'3" feet high and is three and four stories. A total of 177 parking spaces are required and

Environmental Assessment Factor	Impact Code	Impact Evaluation
		will be provided. The project complies with the current zoning designation and Affordable Housing Overlay that apply to it. **Urban Design** The project requires the abandonment of the frontage road easement and this was achieved by City Council Resolution No. 2019-01 on March 19, 2019. The mass of the building is centered in the site away from lower density residential land uses to the west. The site plan was designed to minimize any shadows cast on the adjacent residences. The project is compatible with adjacent land uses and the intent of the City of Menlo Park to intensify the density of the site with the stated goal of providing additional affordable housing. The project is suitable for its proposed use. Source Documentation: (1) (6) (22) (49) (50) (51) (52)
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	3	**Soil Suitability** A Geotechnical Investigation was prepared for the project by Rockridge Geotechnical in July 2018. The report presented preliminary findings and conclusions regarding geotechnical conditions at the site. A summary follows. **Geotechnical Investigation** The site is rectangular shaped with current plan dimensions of approximately 122 by 893 feet. The ground surface at the site slopes down very gently to the north with ground surface elevations (NAVD88 datum) ranging from about 10-1/2 feet at the southern end of the site to 6-1/2 feet at the northern end. The site is bordered by a grocery store to the south, a service station to the north, and a 20-foot-wide public utility easement and the rear yards of single-family homes to the west. It is currently occupied by two-story, at-grade apartment buildings and a one-story community building. An asphalt-paved frontage road with parking stalls runs along the eastern edge of the site. There are also two small asphalt-paved parking lots along the western edge of the site; one is near the center of the site and the other is at the northern end. Existing buildings have experienced differential movements that

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(4) *Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement*

Environmental Assessment Factor	Impact Code	Impact Evaluation
		have caused distress, including wall cracking and sticking doors and windows. Plans are to demolish the existing buildings and remove existing utilities occupying the site and to construct a new multi-family residential development. The property lines for the site will be adjusted by shifting to the south and east; the expanded site will encompass the current frontage road/parking area and the new site plan dimensions will be approximately 174 by 954 feet (3.82 acres). The public utilities in the current frontage road will be abandoned and replaced in a new 12-foot-wide public utility easement that will run along the eastern property line. The new development will include one 3-story and two 4-story at-grade apartment buildings surrounded by landscaped areas and walkways. The apartment buildings will be wood-framed structures that will be built by combining prefabricated modules measuring 11 to 13.25 feet in width and 58 to 70 feet in length. Each building will have a structurally supported wood floor and a crawl space that will include a utility corridor running along the center of the building in the long (north-south) direction. Other proposed site improvements include an at-grade asphalt-paved parking lot/driveway running along the western and northern edges of the property, as well as a landscaped courtyard and one-story community room in the northwestern portion of the site. AMSO Consulting Engineers (AMSO) previously performed a geotechnical investigation for the project, the results of which were presented in a report dated June 20, 2013. AMSO investigated subsurface conditions at the site by drilling two borings on May 31, 2013 and performing three cone penetration tests (CPTs) on May 30, 2013. The borings and CPTs were advanced to depths ranging from 20 to 50 feet below the ground surface (bgs). Laboratory testing was performed on selected soil samples to measure moisture content, dry density, Atterberg limits, and unconfined compression strength. The results of corrosivity testing on two near-surface samples were presented in a separate letter prepared by AMSO, dated October 7, 2014. Rockridge relied on the subsurface data in the AMSO geotechnical report and corrosivity letter in developing the conclusions and recommendations presented herein.

Impact Codes: ***(1)*** *Minor beneficial impact;* ***(2)*** *No impact anticipated;* ***(3)*** *Minor Adverse Impact – May require mitigation;*
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		Field Investigation To supplement the subsurface data from the previous investigation by AMSO, Rockridge drilled four test borings and performed laboratory testing on selected soil samples. **Subsurface Conditions** Regional geologic information indicates the site is underlain by Holocene-age basin deposits, which typically consist of fine-grained soils deposited at the distal edge of alluvial fans. Our borings, which were drilled in the paved area along the eastern edge of the site, encountered asphalt concrete pavement up to 11 inches thick underlain by cemented gravel extending to a depth of about two feet bgs. The results of the previous borings and Cone Penetration Tests (CPTs) by AMSO and our current borings indicate the fill, where encountered, or the ground surface where no fill is present is underlain by medium stiff to very stiff clay with varying sand content interbedded with occasional layers of loose to very dense sand and clayey sand that extends to the maximum depth explored of 50 feet bgs. The granular layers, where encountered, are generally less than a few feet thick except for a layer of medium dense silty and clayey sand encountered between depths of approximately 6 and 14 feet at the CPT-4 location. The results of Atterberg limits tests performed on samples of the near-surface clay indicate the clay has highly to very highly expansive2 with plasticity indices (PIs) ranging from 34 to 52. Groundwater was previously measured in May 2013 in the two AMSO borings at depths of about 10 to 11 feet bgs and in the AMSO CPTs at depths ranging from 9.7 to 10.5 feet bgs. Rockridge measured groundwater in the borings immediately after completion of drilling at depths ranging from approximately 9.3 to 11.1 feet bgs. The Seismic Hazard Zone report for the Palo Alto Quadrangle (2006) prepared by the California Geological Survey (CGS) indicates the historic high groundwater level at the site is about 10 feet bgs. **Conclusions** From a geotechnical standpoint, the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concern for this site is the presence of highly expansive near-surface soil that is susceptible to large volume changes with changes in moisture content. These volume

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		changes can cause cracking of foundations and slabs. Therefore, foundations and slabs should be designed and constructed to mitigate the effects of the expansive clay. These effects can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill below exterior slabs, and either supporting foundations below the zone of severe moisture change or providing a stiff, shallow foundation that can limit deformation of the superstructure as the underlying soil shrinks and swells. Based on discussions with the project team and the proposed modular construction, the most appropriate foundation type for the proposed buildings would consist of deepened continuous footings running edges of the modules. The site is suitable for the proposed development provided that the recommendations presented in the Geotechnical Investigation are followed Slope The ground surface at the site slopes down very gently to the north with ground surface elevations (NAVD88 datum) ranging from about 10-1/2 feet at the southern end of the site to 6- 1/2 feet at the northern end. Erosion The site as it is now is not susceptible to erosion. However, erosion could occur during construction. Erosion can be mitigated by controlling the discharge of concentrated water, both during and after construction. A Storm Water Pollution Prevention Plan will need to be approved by the City Engineer to ensure siltation and erosion is controlled. The site and vicinity are flat. Landsliding is not a potential hazard to this site. No mitigation is required. Drainage/Storm Water Runoff Water quality in stormwater runoff is regulated locally by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), which includes the C.3 provisions set by the San Francisco Bay RWQCB. Adherence to these regulations requires new development or redevelopment projects to incorporate treatment measures, an agreement to maintain them, and other appropriate source control and site design features that reduce pollutants in runoff to the maximum

Impact Codes: ***(1)*** *Minor beneficial impact;* ***(2)*** *No impact anticipated;* ***(3)*** *Minor Adverse Impact – May require mitigation;*
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Environmental Assessment Factor	Impact Code	Impact Evaluation
		extent practicable. Many of the requirements consider Low Impact Development (LID) practices such as the use of onsite infiltration through landscaping and vegetated swales that reduce pollutant loading. Incorporation of these measures can even improve on existing conditions. In addition, the project will be required to comply with the National Pollutant Discharge Elimination System (NPDES) Permit and implementation of the construction Stormwater Pollution Prevention Plan (SWPPP) that require the incorporation of Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Additionally, the City of Menlo Park Public Works Department requires development or redevelopment projects that replace or introduce more than 10,000 square feet of impervious surfaces to prepare a Hydrology Report that requires site design measures to maximize pervious areas, source control measures to keep pollutants out of stormwater, use of construction BMPs, and post construction treatment measures. Hydrology Study BKF Engineers prepared Preliminary Hydrology Calculations in February 2019 for the project. A summary follows and the entire report can be found in Appendix C. The proposed development will collect stormwater from the roof where it will be conveyed through downspouts to flow-thru planters for treatment of the pollutants. Runoff collected from the sidewalk, parking spaces, and drive aisles will be treated by bioretention basins both at grade and via a "Silva-Cell" type product. All treated runoff from the flow-thru planters and bioretention basins will then be collected and discharged into the City storm system at the existing storm connections. Overall, impervious surfaces will be increased by 6,825 sf, but the proposed flow rate is reduced to 4.2 cubic feet per second (cfs) from an existing flow rate of 6.4 (cfs). Runoff to the storm drain system will not result in adverse effects. *Mitigations Required*

Impact Codes: ***(1)*** *Minor beneficial impact;* ***(2)*** *No impact anticipated;* ***(3)*** *Minor Adverse Impact – May require mitigation;*
(4) *Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement*

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Source Documentation: (6) (7) (22) (53) (54) (Appendix C and H)
Hazards and Nuisances including Site Safety and Noise	3	**Site Safety** The project will not create a risk of explosion, release of hazardous substances or other dangers to public health. The project is not located near any hazardous operations. The project will provide a safe place for residents. A Geotechnical Investigation was prepared for the project by Rockridge Geotechnical in July 2018. The report presented preliminary findings and conclusions regarding geotechnical conditions at the site. **Regional Seismicity** The site is located in the Coast Ranges geomorphic province of California that is characterized by northwest-trending valleys and ridges. These topographic features are controlled by folds and faults that resulted from the collision of the Farallon plate and North American plate and subsequent strike-slip faulting along the San Andreas Fault system. The San Andreas Fault is more than 600 miles long from Point Arena in the north to the Gulf of California in the south. The Coast Ranges province is bounded on the east by the Great Valley and on the west by the Pacific Ocean. The major active faults in the area are the San Andreas and Hayward faults. These and other faults in the region are shown on the figure below.

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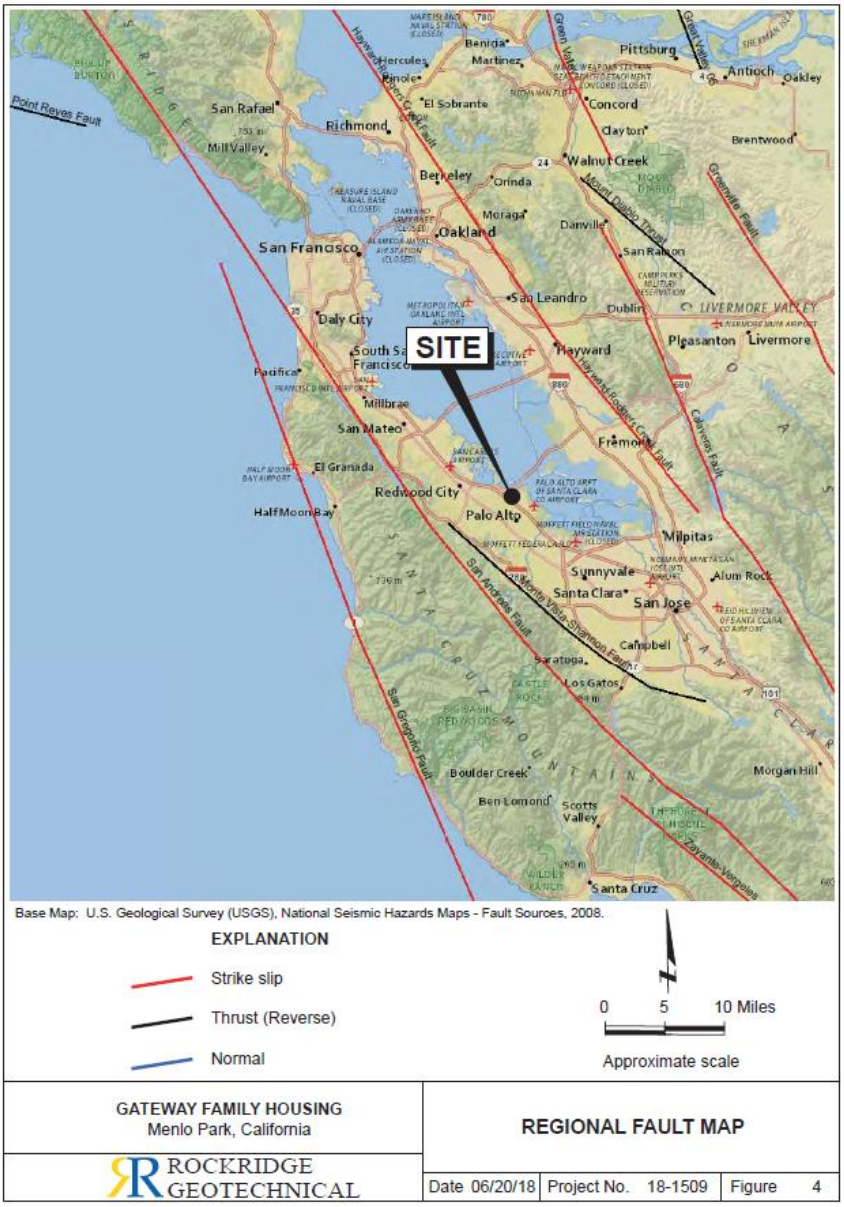

Figure 9 Regional Fault Map

For these and other active faults within a 50-kilometer radius of the site, the distance from the site and estimated mean characteristic Moment magnitude is shown in the table below.

Table 7 Regional Faults and Seismicity

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Environmental Assessment Factor	Impact Code	Impact Evaluation

Fault Segment	Approximate Distance from Site (km)	Direction from Site	Mean Characteristic Moment Magnitude
Monte Vista-Shannon	9	Southwest	6.5
N. San Andreas - Peninsula	11	Southwest	7.2
N. San Andreas (1906 event)	11	Southwest	8.0
Total Hayward	19	Northeast	7.0
Total Hayward – Rodgers Creek	19	Northeast	7.3
San Gregorio Connected	27	West	7.5
Total Calaveras	28	East	7.0
N. San Andreas – Santa Cruz	36	Southeast	7.1
Mount Diablo Thrust	41	Northeast	6.7
Zayante - Vergeles	46	Southeast	7.0
Greenville Connected	49	Northeast	7.0
Green Valley Connected	50	Northeast	6.8

The U.S. Geological Survey's 2014 Working Group on California Earthquake Probabilities has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring in the San Francisco Region during the next 30 years (starting from 2014) is 72 percent. The highest probabilities of occurrence are assigned to the Hayward Fault, Calaveras Fault, and the northern segment of the San Andreas Fault. These probabilities are 14.3, 7.4, and 6.4 percent, respectively.

Geologic Hazards

Because the project site is in a seismically active region, the potential for earthquake-induced geologic hazards including ground shaking, ground surface rupture, liquefaction, lateral spreading, and cyclic densification was evaluated. Rockridge used the results of our field investigation to evaluate the potential of these phenomena occurring at the project site.

Ground Shaking

The seismicity of the site is governed by the activity of the San Andreas and Hayward faults, although ground shaking from future earthquakes

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		on other faults will also be felt at the site. The intensity of earthquake ground motion at the site will depend upon the characteristics of the generating fault, distance to the earthquake epicenter, and magnitude and duration of the earthquake. Strong to very strong ground shaking could occur at the site during a large earthquake on one of the nearby faults. Ground Surface Rupture Historically, ground surface displacements closely follow the trace of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. The risk of fault offset at the site from a known active fault is very low. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, the risk of surface faulting and consequent secondary ground failure from previously unknown faults is also very low. Liquefaction and Associated Hazards When a saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures and sand boils are evidence of excess pore pressure generation and liquefaction. liquefaction analyses indicate there are thin layers of potentially liquefiable soil between depths of approximately 10 and 34 feet bgs. The localized potentially liquefiable layers underlying the site are generally less than one foot thick, with the exception of an approximately 2.5-foot-thick layer encountered between depths of 11 and 13-1/2 feet at the CPT-4 location. It is estimated that total and differential free-field ground settlement resulting from post-liquefaction reconsolidation of the liquefiable soil layers following an MCE event with PGAM of 0.55g on the San Andreas

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		Fault will be less than 3/4 inch and 1/2 inch across a horizontal distance of 30 feet, respectively. Analysis and laboratory test results indicate the potentially liquefiable layers are sufficiently thin and/or dense such that the potential for surface manifestations from liquefaction, such as formation of sand boils and loss of bearing capacity for shallow foundations, is low. Cyclic Densification Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. The results of our investigation indicate the soil encountered above the groundwater table has sufficient cohesion and/or density, such that the potential for cyclic densification to occur at the site is very low. Conclusion From a geotechnical standpoint, the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concern for this site is the presence of highly expansive near-surface soil that is susceptible to large volume changes with changes in moisture content. These volume changes can cause cracking of foundations and slabs. Therefore, foundations and slabs should be designed and constructed to mitigate the effects of the expansive clay. These effects can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill below exterior slabs, and either supporting foundations below the zone of severe moisture change or providing a stiff, shallow foundation that can limit deformation of the superstructure as the underlying soil shrinks and swells. Based on discussions with the project team and the proposed modular construction, the most appropriate foundation type for the proposed buildings would consist of deepened continuous footings running edges of the modules. The site is suitable for the proposed development provided that the recommendations presented in the Geotechnical Investigation are followed.

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		Noise **Regulatory Setting** HUD environmental noise regulations are set forth in 24 CFR Part 51B (Code of Federal Regulations). The following noise standards for new housing construction would be applicable to this project. ○ 65 DNL or less – Acceptable ○ Exceeding 65 DNL but not exceeding 75 DNL – Normally Unacceptable ○ Exceeding 75 DNL – Unacceptable A goal of 45 dBA Ldn is set forth for interior noise levels and attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction any building will provide sufficient attenuation to achieve an interior level of 45 dBA Ldn or less if the exterior level is 65 dBA Ldn or less. The City of Menlo Park addresses noise in the Noise Element of the General Plan and in the Noise Ordinance. The Noise Element of the General Plan adopts the Land Use Compatibility Standards for Community Noise Environments developed by the Office of Noise Control in the California Department of Health. Per the Land Use Compatibility Standard for multi-family dwellings, this proposed project requires the preparation of an acoustical report for dwellings proposed in areas where exterior noise levels exceed 60 dBA CNEL. The purpose of such an acoustical report is to demonstrate how the development will meet the standards for interior noise levels (45 dBA) with windows and doors closed, so that the interior noise exposure level, from intruding exterior Ldn noise, in any habitable space, not exceed 45 dBA. To achieve this interior level requires that the exterior building shell elements (including walls, roof, windows, doors, etc.) provide sufficient noise reduction. The building code requires that when windows and doors are closed, a certain minimum of fresh air is allowed to ventilate the dwelling. **Noise Study** An Environmental Noise Study was conducted for the project by RGD Acoustics in July 2018 (see Appendix G). A summary follows. The following analysis is based on the architectural drawings prepared by Mithun Architects dated 11 July 2018. To account for future traffic volume increases, the Menlo Park general plan predicts an increase in

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Ldn of 2.1 dBA by 2035 on major nearby roadways, which has been integrated into the analysis. **Noise Environment** The major noise source affecting the project site is vehicular traffic, primarily those traveling on Willow Road, CA-84 Bayfront Expressway, and Highway 101. Willow Road is directly south of the project site, with its center approximately 75 feet from the nearest project building setback, while CA-84 and US-101 are approximately 1,100 feet north and 2,600 feet south of the project site, respectively. One long-term (48-hour) noise measurement and three short-term (approximately 15-minute) measurements were made at the project site to quantify the existing noise levels. The noise measurement locations are shown in Figure 2. The long-term noise monitor at LT-1 was attached to a tree approximately twelve feet above ground between the existing parking area and the adjacent apartment building, about 60 feet from the center of Willow Road. The measured noise level was a day/night average noise level of Ldn 68 dBA. **Figure 10 Noise Measurement Locations** The short-term measurements at ST-1, ST-2, and ST-3 were made at the setbacks of the proposed buildings with respect to the existing location of Willow Road. The short-term measurements at ST-1 and ST-3 were measured at a height of 24 feet above ground and the short-term

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		measurements at ST-3 were measured at a height of both 5 and 24 feet above ground, simultaneously. Table 8 Noise Measurement Results

Location/ Height Above Ground		Date/Time	L_{eq}	L_1	L_{33}	L_{max}	L_{dn}*
ST-1	24'	6/12/18 12:28 PM – 12:43 PM	64	70	64	73	70
ST-2	24'	6/14/18 11:30 AM – 11:45 AM	65	72	65	78	71
	5'	6/14/18 11:30 AM – 11:45 AM	60	67	60	71	66
ST-3	24'	6/12/18 11:50 AM – 12:05 PM	64	67	64	73	68

*L_{dn} calculated based on correlation with simultaneous measurement at long-term location.

Exterior Noise

The proposed building would be exposed to a future exterior Ldn of 68 to 71 dBA along Willow Road. The noise exposure in the landscaped courtyard is projected to have an Ldn of 65 dBA or less due to the acoustical shielding provided by the project and adjacent buildings, and thus, is considered "normally acceptable" according to the Menlo Park general plan and HUD regulations for outdoor uses.

Interior Noise

The current exterior noise of Ldn of 68 dBA at the building setback is considered "conditionally acceptable" for multi-family residential development according to the Menlo Park general plan and "Normally Unacceptable" by HUD standards. It should be noted, however, that as traffic volumes increase over time, the exterior noise Ldn may approach the "normally unacceptable" category (70 dBA) for the City. The policy states that development may be undertaken only if a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction with closed windows and fresh air supply systems or air conditioning will normally suffice. The State of California Building Code requires that interior noise levels be reduced to an Ldn of 45 dBA or less in habitable rooms. Achieving the State requirement would require the use of sound rated windows and doors for some units.

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		According to the typical exterior wall detail we received on July 18, 2018, the exterior wall consists of fiber cement lap siding. Figures 4-8 in the report and Noise Waiver show the recommended sound ratings for windows to achieve the residential interior standard of Ldn 45 dBA. All patio doors along Willow Rd. must have a minimum STC of 28. Non-Residential Occupancies These rooms consist of a conference room, computer lab and offices on the first and second floors along Willow Rd. In order to meet the CALGreen interior noise level requirement (Leq of 50 dBA) these windows will require a minimum STC rating of 28. Conclusion The project requires noise attenuating architectural features. *A Noise Waiver is Required* *Mitigations Required* Source Document List: (22) (43) (53) (55) (56) (Appendix G and H)
Energy Consumption	1	The project proponent, MidPen Housing will place a strong emphasis on green building methods and materials both in terms of design and construction as well as long-term mechanical and maintenance systems. The project will be designed and constructed to use resources as efficiently as possible. All units will feature EnergySTAR lighting and appliances and low-flow water fixtures. Environmentally responsible building materials will be used that improve indoor air quality and reduce greenhouse gas emissions, such as: cabinets with no added urea formaldehyde; adhesives, wood coatings, and paints that contain low- or no-VOCs; and carpets that are certified CRI Green Label Plus. The project seeks to achieve a GreenPoint Rated equivalent or LEED Silver Certification. The new development would not represent a wasteful use of energy, although the project does represent additional energy usage over current conditions. The project will utilize building materials that meet or exceed the energy standards set forth by the California Energy Commission in Title 24, Part 6 of the California Code Regulations. The proposed project does not represent a wasteful use of energy.

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		Source Documentation: (6) (57)
SOCIOECONOMIC		
Employment and Income Patterns	2	The project by its definition is to provide affordable housing for at most 556 people that could occupy the site to HUD guidelines. The unit mix that comprises the existing 82 apartments is not known – therefore the net increase in occupants is not calculated, but the entire population is considered. The project occupancy of 556 persons is not sufficient to induce growth in the area or impact employment patterns. Impacts to employment and income patterns are expected to be less than significant. Source Documentation: (6)
Demographic Character Changes, Displacement	3	**Demographic Character Changes** As an affordable housing project, the project is not anticipated to cause a substantial growth in population in the area. The project will target low-income individuals and families, some of whom already reside at the current affordable housing site. Based on guidelines provided by HUD, the maximum number of residents appropriate to multi-family unit dwellings is two persons per bedroom, plus one per unit. Thus, at most there would be three persons in a one-bedroom apartment, and five persons in a two-bedroom unit. The proposed project would provide 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. To consider the maximum number of persons the project could accommodate, HUD's guideline for the maximum number of residents will be used. Carrying the math forward, we see that (66 x 3) = 198 and (50 x 5) = 250 and (24 x 7) = 108 for a total of 556. So, the proposed project would provide housing for at most 556 people. However, it is not expected that three persons will occupy a one-bedroom unit. Nevertheless, for the purposes of this analysis, a population of 556 people is assumed. The population of the City of Menlo Park was 32,026 in 2010, so the additional 556 people would represent 1.7% of that population. However, this is conservative, as the actual number of current residents is unknown. Less than significant impact is expected to result from the proposed project, as it would not create a significant change to the demographics of the area.

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		Displacement The Uniform Relocation Act (URA), passed by Congress in 1970, establishes minimum standards for federally-funded programs and projects that require the acquisition of real property (real estate) or displace persons from their homes, businesses, or farms. The Uniform Act's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for federal or federally-funded projects. Section 205 of the URA requires that, "Programs or projects undertaken by a federal agency or with federal financial assistance shall be planned in a manner that (1) recognizes, at an early stage in the planning of such programs or projects and before the commencement of any actions which will cause displacements, the problems associated with the displacement of individuals, families, businesses, and farm operations, and (2) provides for the resolution of such problems in order to minimize adverse impacts on displaced persons and to expedite program or project advancement and completion." The site is occupied with residents that will need to be relocated during redevelopment of the site. A qualified relocation plan is being developed. A relocation plan is required. *Mitigations Required* Source Documentation: (4) (6) (7) (58)
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	**Educational Facilities** The project by its definition is to provide affordable housing for at most 556 people, and school aged children will likely reside at the project. Elementary school children would attend schools in the Ravenswood City School District, the nearest is Belle Haven Elementary School, located at 415 Ivy Drive, ½ mile west of the site or a 10 minute walk. Ravenswood Middle School is part of the District and is located at 2450 Ralmar Ave, East Palo Alto, CA 94303, a four minute drive from the site. High school students would attend Sequoia Union High School District which includes Sequoia High School, located at 1201 Brewster Ave,

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		Redwood City, CA 94062, 6.5 miles northwest of the subject property or a 15 minute drive. No cumulative adverse impacts to schools in the area have been identified. **Cultural Facilities** The proposed project is within five miles of five cinemas, five convention centers, 39 galleries, 23 landmarks, 26 libraries, six museums, a stadium and four theatres. The East Palo Alto Library is located approximately 1.3 miles east or a six minute drive from the project site at 2415 University Avenue. The project represents an incremental demand for cultural facilities. No adverse impacts have been identified. Source Documentation: (6) (7) (22) (49) (59) (60) (61)
Commercial Facilities	2	The project site is in an urban area and located within two miles of 10 banks/ATMs, 14 auto service establishments, nine gas stations, and over 50 restaurants. There is a small market located at 1305 Willow Road adjacent to the site. Within three miles there are eleven grocery stores and six pharmacies. The addition of at most 556 residents would not constitute a significant impact on the demand for commercial facilities in the area. Source Documentation: (6) (7)
Health Care and Social Services	2	**Health Care** Health care facilities near the project site include Sequoia Hospital in Redwood City, approximately 7.2 miles north. Sequoia Hospital provides 24-hour emergency room services and has 167 beds, offering a full range of medical and surgical services. The VA Palo Alto Health Care System is located at 795 Willow Road in Menlo Park is approximately 1.3 miles away or an eight minute drive by car. The VA Palo Alto Healthcare System provides a full range of services from oncology to surgery to dental services, all tailored to the veteran population.

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		Kaiser Permanente Redwood City Medial Center is located at 1150 Veterans Blvd., in Redwood City, approximately 5 miles north and provides emergency medical services, urgent care and pharmacy services. There are other numerous smaller health care clinics, private doctors' offices and specialized health care services in the site vicinity. There are no *significant* impacts to Healthcare facilities or delivery systems anticipated as a result of the proposed project. **Social Services** The project does not represent a significant change to the demographics of the area or on area social services as it serves the existing population. The San Mateo County Health System provides a full range of social services including health care that encompasses disease and prevention, vaccines, dental and lab services. The County Health also provides emergency medical services, pregnancy, children and family services, services for teens, adults and aging, and mental health and substance abuse services. Implementation of the project represents a less than significant impact to social services. Source Documentation: (6) (7) (62) (63) (64) (65)
Solid Waste Disposal / Recycling	2	**Operational Waste** West Bay Sanitary District is a joint partner, with eleven other local agencies, with South Bayside Waste Management Authority (SBWMA). SBWMA manages the collection of recycling, compost and garbage to approximately 2,000 WBSD rate payers. Recycling, organic materials and solid waste (garbage and recycling) collection services, as well as operations at the Shoreway Recycling and Disposal Center in San Carlos, California, are provided by Recology San Mateo County and South Bay Recycling, respectively. RethinkWaste is a joint powers authority of twelve public agencies in San Mateo County, California and is a leader in the delivery of innovative waste reduction and recycling programs. West Bay Sanitary District provides solid waste collection and conveyance service to the project site. Collected recyclables, organics, and garbage are conveyed to the Shoreway Environmental Center in San Carlos for

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		processing and shipment. The Shoreway Environmental Center is owned by RethinkWaste (former South Bayside Waste Management Authority), which is a joint powers authority that is comprised of twelve public agencies, including Menlo Park. The Shoreway Environmental Center, opened on September 27, 2011, consists of a transfer station, a materials recovery facility, a public recycling center, an environmental education center, Recology offices, and South Bay Recycling offices in separate buildings on 16 acres of land. Under the California State Integrated Waste Management Board (CIWMB) permission, the Shoreway has a daily capacity of 3,000 tons of solid waste and recyclables. Currently, it receives 1,300 tons per day, 6 percent of which is from the City of Menlo Park (roughly 300 tons per month). Materials not composted or recycled in San Mateo County are landfilled at the Ox Mountain Landfill (also known as Corinda Los Trancos Landfill) near the City of Half Moon Bay, San Mateo County. Ox Mountain Landfill is a Class III facility permitted to accept 3,598 tons of refuse per day and 1.15 million tons per year. In 2011, the facility accepted 2,260 tons per day or 700,600 tons per year, roughly 40 percent less than its daily permitted capacity of 3,598 tons.71 Menlo Park's city-wide waste contribution in 2011 was 32,259 tons, and 19,136 tons were deposited at Ox Mountain Landfill.72 As of 2011, Ox Mountain Landfill's existing capacity was approximately 20.2 million cubic yards, and Ox Mountain is expected to service the region until year 2034. Solid waste from future development under the Plan Components would be transferred to Ox Mountain Landfill for ultimate disposal. Ox Mountain Landfill is permitted to receive up to 3,598 tons of waste per day and currently receives about 2,260 tons of waste per day. As of 2011, remaining capacity was approximately 20.2 million cubic yards. The project would generate additional waste over current conditions, but the impact would not exceed current capacity. Impacts are considered *less than significant.* Construction Waste Chapter 12.48 of Menlo Park's Municipal Code establishes landfill diversion requirements of Construction and Demolition (C&D) debris. Residential projects of 1,000 square feet or greater, such as this one, are

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		required to divert 60 percent of total generated waste tonnage through recycling, reuse, salvage, and other diversion programs. As part of a building or demolition permit application, project applicants must submit estimated tonnage of C&D debris and plans for diverting materials to the building division. The site vicinity is served with solid waste disposal service; therefore the project represents an incremental net increase. However, this small increase in demand would not exceed the capacity of or reduce the capability of services in Menlo Park and would not require the construction of additional solid waste management facilities. In addition, waste generated by demolition and construction will be required to be diverted from landfills to reduce impacts to landfills and encourage the reuse of such materials. Source Documentation: (6) (22) (66) (67)
Waste Water / Sanitary Sewers	2	The South Bayside Systems Authority (SBSA) Waste Water Treatment Plant (WWTP) treats raw wastewater from Menlo Park and other communities and discharges to the deep water channel of the San Francisco Bay. The WWTP is designed to remove more than 97 percent of all solids, organic material, and pathogens from the wastewater through physical and biological processes. The SBSA's WWTP has an existing dry weather capacity of 27 million gallons per day (MGD) and wet weather capacity of 71 MGD. On average in year 2009, the WWTP treated 15 MGD in dry weather and 62 MGD in wet weather. Under its Stage 2 Expansion Program, the SBSA will increase WWTP capacity to 29 MGD dry weather capacity and 80 MGD wet weather capacity as needed. The improvements under their Capital Improvement Program (CIP) are intended to accommodate regional development to year 2030. During the dry season, SBSA further treats some of the WWTP flow with coagulation and additional disinfection for use as recycled water for landscape irrigation in the SBSA service area. Based on the WBSD's wastewater generation rate of 220 gallons per day (GPD) per unit for single-family residential uses, an estimated 19,800 gallons of wastewater per day or approximately 0.0198 million gallons per day. Add this to the existing average demand of 15 MGD, the demand

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		would not exceed capacity or cause the expansion or improvement of wastewater treatment facilities. Therefore impacts are considered *less than significant.* As the discharger named in the NPDES Permit, the SBSA implements and enforces a pretreatment program for effluent discharged into San Francisco Bay. Consequently, wastewater from the project would be treated according to the wastewater treatment requirements enforced by the San Francisco Regional Water Quality Control Board (RWQCB). Therefore, the project combined with regional growth in the service area would not exceed wastewater treatment requirements, and cumulative impacts to sanitary wastewater service would be *less than significant.* Waste water services are already provided to the site and vicinity. The project applicant shall be responsible for the necessary sanitary sewer infrastructure improvements and connections to accommodate the proposed project. Source Documentation: (6) (22)
Water Supply	2	Potable water at the project site is supplied by Palo Alto Mutual Water Company. The San Francisco Public Utilities Commission (SFPUC) is the primary water source for the Menlo Park Municipal Water District. For the San Francisco Regional Water System, the major water source originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir, where it is stored. This pristine Sierra water source meets all federal and state criteria for watershed protection. The SFPUC also maintains stringent disinfection treatment practices, extensive bacteriological-quality monitoring, and high operational standards. As a result, the California Department of Public Health (CDPH) and U.S. Environmental Protection Agency has granted the Hetch Hetchy water source a filtration exemption. There is a commitment to supply the project with potable water. To reduce usage, the project will implement water-saving features to the extent practicable. Source Documentation: (6) (22) (57)

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Public Safety - Police, Fire and Emergency Medical	2	**Police** The Menlo Park Police Department (MPPD) provides law enforcement services in the City of Menlo Park. The police station is located at City Hall, with address 701 Laurel Street. The one police station covers the entire area. The MPPD operates one 1,000-square-foot substation east of Highway 101 for officers to use restrooms, make calls, or interview a suspect, victim, or witness. The substation is also a location used during critical incidents in the Belle Haven neighborhood The MPPD divides its service area by three beats: Beat 1 covers the area of the City west of El Camino Real, Beat 2 covers the area between El Camino Real and Highway 101, and Beat 3 covers the area east of Highway 101, and Beat 2 covers the area in the middle. The project site is located in Beat 3. The MPPD prioritizes calls for police services as follows: Priority 1 calls involve life-threatening situations; Priority 2 calls are not life-threatening but necessitate immediate response; all other calls are designated Priority 3. In 2011, the average response time for Priority 1 calls was 4 minutes, for Priority 2 calls was 7 minutes, and for Priority 3 calls 10 minutes. The MPPD acknowledged that sometimes traveling east to west in the City is a huge barrier meeting the response time goal due to traffic congestion. Implementation of the project would cause an increase in population. The increase in population would likely increase the number of calls for police protection services. The Housing Element Environmental Assessment determined that for all the Plan Components (including this project), a total of 3,361 new residents would require 3-5 additional sworn officers. However, the MPPD has confirmed that no expansion or addition of facilities would be required to accommodate the additional sworn officers or equipment. The project is consistent with the following General Plan policies to minimize adverse impacts to law enforcement. *Policy S-1.38: Emergency Vehicle Access. Require that all private roads be designed to allow access for emergency vehicles as a prerequisite to the granting of permits and approvals for construction.* The project is consistent with this Policy by vacating the existing right-of-way the site is redesigned with improved emergency vehicle access and circulation.

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		Policy S1.11: Visibility and Access to Address Safety Concerns. Require that residential development be designed to permit maximum visibility and access to law enforcement and fire control vehicles consistent with privacy and other design considerations. The project is consistent with this Policy by the addition of new security gate entrances for vehicles and pedestrians. The metal fencing will provide improved security for residents and prevent non-resident vehicle traffic through the site. Although the demand for police services would increase, it would not require the new construction or expansion of facilities; therefore the impact is considered *less than significant.* Fire and Emergency Medical The Menlo Park Fire Protection District (MPFPD) provides fire protection services to approximately 90,000 people covering 30 square miles. The MPFPD has agreements with neighboring departments to provide automatic aid. In addition to fire suppression, the Fire Protection District provides first-responder/paramedic services on all engine companies and all necessary fire and emergency medical support services. The MPFPD responds to approximately 8,500 emergencies a year with about 60 percent of them being emergency medical incidents. The MPFPD's targeted response time for each fire station is six minutes fifty-nine seconds for medical calls and eight minutes response time for fires within the fire station's service area. In 2011, out of 7,304 incident calls 70 percent of calls were responded to in less than 5 minutes. Station No. 77 located at 1467 Chilco Street is nearest to the project site and would be the company that would normally respond to calls from the project. The project would have a significant impact if it would exceed the ability of fire and emergency medical providers to adequately serve the existing and future residents and requiring new and expanded facilities. The Housing Element Environmental Assessment determined that planned projects (including this one) would increase service needs but would be offset by implementation of Impact Fees imposed to fund the MPFPD's capital improvement plans.

Impact Codes: ***(1)*** *Minor beneficial impact;* ***(2)*** *No impact anticipated;* ***(3)*** *Minor Adverse Impact – May require mitigation;*
(4) *Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement*

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Although the demand for fire and emergency medical services would increase, it would not require the new construction or expansion of facilities; therefore the impact is considered *less than significant.* Source Documentation: (6) (22)
Parks, Open Space and Recreation	2	The Menlo Park Community Services Department owns and operates parks and recreational facilities in the City of Menlo Park. The City has adopted a goal of maintaining a ratio of five acres of developed parkland per 1,000 residents. Currently, the City provides 220.86 acres of parkland for the residents, with a ratio of 6.79 acres per capita. In addition to the City's parks facilities, Menlo Park residents have access to a range of regional parks and open space, including the Don Edwards San Francisco Bay National Wildlife Refuge. Wunderlich County Park, Huddart County Park, and San Francisco Bay Trail also provide recreational opportunities for Menlo Park residents. Flood Park, a 26-acre facility owned by San Mateo County Parks Department, provides a place for picnicking and strolling. The residents of Menlo Park have access to the 373-acre Ravenswood Preserve located largely within Menlo Park and owned and managed by the Midpeninsula Regional Open Space District. The southern portion of the preserve offers pedestrian and bicycle access along the shore and levees along the marshland. The project represents an incremental demand for recreational facilities therefore impacts are considered less than significant. Source Documentation: (6) (7) (22) (68) (69)
Transportation and Accessibility	3	**Transportation** Transportation impacts caused by the proposed project to traffic vary depending upon the number of personal vehicle trips the project will generate, the availability of public transit, the bicycle network, and the completeness of the nearby pedestrian network. Close amenities serve to further reduce the impacts to traffic. *Public Transit* Rail Service

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		Caltrain provides rail service on the peninsula near the project site in Hillsdale. Baby Bullet trains with limited stops run during the week and weekend with lead times of 10 to 35 minutes. Limited-stop and local service trains provide transportation along the peninsula from Gilroy to San Francisco. Connections via Caltrain to Bay Area Rapid Transit (BART) trains can be made north in Millbrae. <u>San Mateo County Transit (SamTrans)</u> SamTrans operates bus service in San Mateo County. There are 54 routes in the county that can be categorized as community, express, and Bay Area Rapid Transit (BART) connection that serve over 14 million riders annually. SamTrans operates four bus routes along Newbridge Street, just south of the site. Routes 281, 296, 297, and 397 that connect to the Menlo Park Caltrain station and the Palo Alto Transit Center. <u>Alameda County-Contra Costa Transit (AC Transit)</u> AC Transit provides two bus routes on the north/south running Willow Road, DB and DB1 that connect to the Stanford Campus to the west and east over the Dumbarton Bridge to Fremont across San Francisco Bay. BART can be caught in Union City. <u>Caltrain</u> Both the Menlo Park Caltrain Station and the Palo Alto Caltrain Station are less than three miles from the project site. The Alliance operates one shuttle bus in the project vicinity during weekday commute hours: the Mariners Island (PCA) Area Shuttle. The Mariners' Island Area Shuttle provides service between the Hillsdale Caltrain Station and businesses along Chess Drive, Foster City Boulevard, East Hillsdale Boulevard, and Metro Center Boulevard. The Mariners Island Area Shuttle stops at East Hillsdale Boulevard and Shell Boulevard adjacent to the project site. *Bicycle Facilities* Bicycle facilities include Class I bike paths, Class II bike lanes, and Class III bike routes. Class I bike paths are paved pathways that are separated from roadways by space or a physical barrier. They can be multi-use paths that are also used by pedestrians. Class II bike lanes are lanes on the

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		outside edge of roadways that are intended for the exclusive use of bicycles and are designated with special signing and pavement markings. Class Ill bike routes are roadways designated for bicycle use with only a bike route sign. Willow Road is currently a Class II Bike Lane that connects to a Class I Bike Path at the Bayshore freeway. Class II Bike Lanes are proposed in the project vicinity to further connect the bicycle network. *Pedestrian Facilities* Pedestrian facilities include sidewalks, marked and enhanced crosswalks, curb ramps, and pedestrian scale lighting. Sidewalks are provided along both sides of streets within the immediate vicinity of the project site. The project itself seeks to make improvements to the Street frontage with pedestrian path reconstruction and entry gates for residents. Intersections are signalized near the project site and the vicinity is generally walk-able. *Personal Vehicles* The Institute of Transportation Engineers, Trip Generation, 9th Edition for land use "221 – Low Rise Apartment at a net increase of 58 units, the project will generate an estimated additional 382 new trips per day during weekdays. An estimated 27 additional Peak AM trips and 34 additional Peak PM weekday trips will be generated by the project. Willow Road is considered an 'arterial roadway' and is also designated as State Route 114 (SR-114). The level of service are designated LOS A through F, from best to worst, which cover the entire range of traffic operations that might occur. LOS A through E generally represent traffic volumes at less than roadway capacity (free flow conditions), while LOS F represents conditions where traffic demands exceed capacity and the flow of traffic breaks down, resulting in stop-and-go conditions and long queues of vehicles. Caltrans maintains a minimum level of service (LOS) at the transition between LOS C and LOS D for all of its facilities. Where an existing facility is operating at less than the LOS C/D threshold, the existing measure of effectiveness should be maintained. The City of Menlo Park has standards for intersections on arterial streets (such as Willow Road). A significant impact is the addition of project traffic that causes an intersection operating at LOS D or better degrade to LOS E

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		or F; or have an increase of 23 seconds or greater in average vehicle delay; or causes an increase of more than 0.8 seconds of average delay to vehicles on the most critical movements for intersections operating at LOS E or F prior to the addition of project traffic. There are two intersections closest to the project site whose intersection levels of service were analyzed in 2012: Willow Road and O'Brien Drive; and Willow Road at Newbridge Street. Willow and Newbridge Street intersection operate at LOS D in both the Peak AM and PM hours. Willow Road and O'Brien Drive operates at LOS B in the Peak AM hour and LOS D during the Peak PM hour. The LOS threshold for both is LOS D. The intersection of Willow Road and O'Brien Drive will continue to operate at LOS D or better during peak hours in near term (2014) existing plus approved projects conditions and future 2035 conditions. This impact is considered *less than significant.* *Parking* The project will provide 177 parking spaces, 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces onsite. This meets the City of Menlo Park requirements. Parking provided is consistent with the Affordable Housing Overlay requirements of 177 spaces for the site. *Conclusion* Pedestrian, bicycle and transit facilities are expected to adequately serve the proposed project. The project will not significantly increase the demand for transportation above what is already available in the area. Future traffic impacts to one of two nearby intersections to the project will be significant and unavoidable in the near and distance future regardless of project approval. Therefore, project impacts to traffic are considered *less than significant.* Accessibility Gateway Family Housing will be an elevator-served building, with all units on an accessible path of travel. An accessible path of travel will be provided to all spaces within the units as well. Ten percent (10%) of the units will be built out as fully accessible, as described by ADA. The accessible bathrooms will have appropriate maneuvering space for a

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		wheelchair, fully backed grab bars, and removable base cabinets at the vanities. The accessible kitchens will be designed to accommodate mobility impairments and include features such as easily accessible shelves, counters, appliances and electrical switches. Four percent(4%) of the units will be designed for hearing/visually impaired residents, with horn-strobes wired to the smoke alarm system. Common areas such as lobby, classrooms, community room, and community kitchen will be ADA accessible. At least one accessible washer/dryer unit will also be installed in the laundry room. Accessible play structures will be provided in the outdoor play area. Source Documentation: (6) (22) (70) (71) (72) (73) (74) (75)
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	No unique features are located on the site. There are no active agricultural lands on or near the project site. There are no impacts to agricultural lands. There are no water courses, creeks, streams, seasonal wetlands or other water resources on the project site. Source Documentation: (6) (7)
Vegetation, Wildlife	4	Trees An Arborist Report was updated for the project in July 2018 by HortScience, Inc. A summary of the report follows. The entire report can be found in Appendix C. Sixty-one (61) trees were evaluated, representing 10 species (see table below), including 12 street trees and one off-site tree (#49).

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<table>
<tr><th>Environmental Assessment Factor</th><th>Impact Code</th><th>Impact Evaluation</th></tr>
<tr><td></td><td></td><td>
Table 9 Trees
<table>
<tr><th>Common name</th><th>Scientific name</th><th colspan="3">Condition rating</th><th>No. of trees</th></tr>
<tr><td></td><td></td><td>Poor (1-2)</td><td>Fair (3)</td><td>Good (4-5)</td><td></td></tr>
<tr><td>White alder</td><td>Alnus rhombifolia</td><td>-</td><td>3</td><td>2</td><td>5</td></tr>
<tr><td>Raywood ash</td><td>Fraxinus angustifolia 'Raywood'</td><td>5</td><td>16</td><td>5</td><td>26</td></tr>
<tr><td>Modesto ash</td><td>Fraxinus velutina 'Modesto'</td><td>-</td><td>1</td><td>-</td><td>1</td></tr>
<tr><td>California black walnut*</td><td>Juglans hindsii</td><td>1</td><td>-</td><td>-</td><td>1</td></tr>
<tr><td>London plane*</td><td>Platanus x hispanica</td><td>-</td><td>7</td><td>5</td><td>12</td></tr>
<tr><td>Purpleleaf plum</td><td>Prunus cerasifera</td><td>-</td><td>-</td><td>3</td><td>3</td></tr>
<tr><td>Japanese flowering cherry</td><td>Prunus serrulata</td><td>1</td><td>2</td><td>-</td><td>3</td></tr>
<tr><td>Callery pear</td><td>Pyrus calleryana</td><td>-</td><td>8</td><td>-</td><td>8</td></tr>
<tr><td>Pear</td><td>Pyrus communis</td><td>-</td><td>1</td><td>-</td><td>1</td></tr>
<tr><td>African sumac</td><td>Rhus lancea</td><td>-</td><td>1</td><td>-</td><td>1</td></tr>
<tr><td colspan="6">*off-site or street tree</td></tr>
<tr><td>Total</td><td></td><td>7
11%</td><td>39
64%</td><td>15
25%</td><td>61
100%</td></tr>
</table>
All of the trees on the site were planted ornamental species. Although California black walnut and white alder are native to California, they were not indigenous to this site. Trees ranged in age from young to mature. The smallest tree was 4 inches in diameter; the largest, 31 inches. Average trunk diameter was 12 inches.

Thirty-seven (37) trees will be directly impacted by construction, including 14 Heritage trees. Three trees had high suitability for preservation, 21 were moderate, and 13 were low.

Mitigation is required for tree preservation.

Mitigations Required

Wildlife

No special-status plant or animal species have been reported from or are suspected to occur on the site due to the extent of past disturbance and absence of suitable habitat. Development of the site would eliminate marginal, potential foraging habitat for several species of raptors. Destruction of raptor nests in active use is prohibited under State and federal law. Mitigations to protect these birds are required, prior to any construction.

Mitigations Required

Source Documentation: (22) (24) (Appendix C)
</td></tr>
<tr><td>Other Factors</td><td>1</td><td>The project will provide 58 additional, quality affordable housing units by redevelopment of the site. The project will provide a safe, clean, and</td></tr>
</table>

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Environmental Assessment Factor	Impact Code	Impact Evaluation
		sanitary place for residents. The proposed project is beneficial to both residents and the community. Source Documentation: (6)

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Additional Studies Performed:

See Source Documentation List

Field Inspection (Date and completed by):

May 1, 2019 Site Visit by Cinnamon Crake, Associate, AEM Consulting

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

See Source Documentation List

List of Permits Obtained:

No permits have been obtained yet, as the moment the use of Federal funds was contemplated, all project actions were halted to conduct this environmental review.

Public Outreach [24 CFR 50.23 & 58.43]:

The project results in a Finding of No Significant Impact (FONSI) which will be published in the newspaper and circulated to public agencies, interested parties, and landowners/occupants of parcels located within the project's Area of Potential Effects (APE). Information about where the public may find the Environmental Review Record pertinent the project was included in the FONSI Notice. In addition, per requirements of the 8-Step Process for compliance with Executive Orders for projects located in a Floodplain, an Early Notice was provided to the public for comment and published in the San Mateo County Times on May 23, 2019.

Cumulative Impact Analysis [24 CFR 58.32]:

This project has been identified as site targeted for redevelopment at a higher density in the City of Menlo Park's Housing Element Update to add additional low-income housing units to meet the Regional Housing Needs Allocation. The Environmental Assessment performed for the Housing Element update no significant cumulative impacts were identified. Source: (3) (22) (50)

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

A reduced-density of the project site was considered but deemed infeasible. The project would be inconsistent with the Affordable Housing Overlay and the project would not leverage incentives provided in it to develop the highest density allowed. Redevelopment of the site at another location is outside of the purview of the developer as owner of the existing property development. Sale of the property is restricted to use as low-income housing. The price of land elsewhere would be cost-prohibitive and would not achieve the goals of the City of Menlo Park and the County of San Mateo.

No Action Alternative [24 CFR 58.40(e)]:

No change to the site would occur. The impacts discussed in the Environmental Assessment would not occur. The deterioration of the structures on the site would continue and require rehabilitation. Additional affordable housing units would not be created. Residents would not need to be relocated during construction. The City of Menlo Park would need to identify another site for redevelopment at a higher density in an effort to meet their Regional Housing Needs Allocation for low-income housing.

Summary of Findings and Conclusions:

The project is suitable from an environmental standpoint. As long as the mitigation measures are adhered to, there is no anticipated significant impact from the project. The project will provide a safe, sanitary, and affordable place for residents and is a benefit to the community.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

***A Mitigation Monitoring and Reporting Program is attached as a separate document.**

Law, Authority, or Factor	Mitigation Measure
Air Quality	AQ1. Applicant shall comply with the following Bay Area Air Quality Management District Basic Control Measures for reducing construction emissions of PM_{10}: a. Water all active construction areas at least twice daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e. the minimum required space between the top of the load and the top of the trailer). c. Pave, apply water twice daily or as often as necessary, to control dust, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. d. Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, with water sweepers all paved access roads, parking areas and staging areas at the construction site to control dust. e. Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the project site, or as often as needed, to keep streets free of visible soil material. f. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas. g. Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.). h. Limit vehicle traffic speeds on unpaved roads to 15 mph. i. Replant vegetation in disturbed areas as quickly as possible. j. Install sandbags or other erosion control measures to prevent silt runoff from public roadways.

Law, Authority, or Factor	Mitigation Measure
Biological Resources	BR1. Adequate measures should be taken to avoid any inadvertent taking of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in active use. These should be accomplished by taking the following steps: a. If vegetation removal and initial construction is proposed during the nesting season (March to August), a focused survey for nesting raptors and other migratory birds should be conducted by a qualified biologist within 14 days prior to the onset of vegetation removal or construction, in order to identify any active nests on the proposed project site and in the vicinity of proposed construction. b. If no active nests are identified during the construction survey period, or if development is initiated during the non-breeding season (September to February), vegetation removal and construction may proceed with no restrictions. c. If protected bird nests are found, an adequate setback should be established around the nest location and vegetation removal and construction activities restricted within this no-disturbance zone until the qualified biologist has confirmed that any young birds have fledged and are able to function outside the nest location. Required setback distances for the no-disturbance zone should be based on input received from the California Department of Department of Fish and Wildlife (CDFW), and may vary depending on species and sensitivity to disturbance. As necessary, the no-disturbance zone should be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the development site. d. A report of findings should be prepared by a qualified biologist and submitted to the City of Menlo Park for review and approval prior to initiation of construction within the no-disturbance zone during the nesting season (March to August). The report should either confirm absence of any active nests or should confirm that any young are located within a designated no-disturbance zone and construction can proceed. BR2. Obtain a Tree Removal Permit from the Director of Menlo Park's Public Works Department prior to removal of any trees, Heritage Trees or otherwise, by submitting an Arborist Report prepared for the project in compliance with Menlo Park's Heritage Tree Ordinance (Chapter 13.24 of the Municipal Code).

Law, Authority, or Factor	Mitigation Measure
	BR3. The applicant shall follow all Tree Preservation Guidelines set forth in the project's Arborist Report by HortScience, Inc. and dated July 18, 2018.
Contamination and Toxic Substances	HZ1. Prior to demolition activities at the site, all presumed LBP and ACBMs should be sampled and tested and handled/removed in accordance with federal, state and local regulatory requirements by the applicant or their contractor.
Cultural Resources	CR1. The developer is required to adhere to the Programmatic Agreement signed in October 2019 (see Appendix F), including Cultural Resources Monitoring Program for the Gateway Family Housing project and any related reporting requirements at all times during implementation of the project, as described therein.
Floodplains	FL1. The project will be required to demonstrate that the finish floor elevation is 12 feet above mean sea level and obtain the final Letter of Map Amendment based on Fill (LOMA-F) from the Federal Emergency Management Agency (FEMA) after construction. Flood insurance is not required.
Geotechnical	G1. Follow all recommendations in the *Supplemental Geotechnical Investigation* prepared for the project by Rockridge Geotechnical on July 19, 2018 and found in Appendix G.
Noise	N1. Follow all STC ratings for window and wall components as detailed in the project's *Noise Waiver* (see Appendix G).
Relocation	R1. The project will involve relocation of residents. The project will be subject to the Uniform Relocation Act (46 U.S.C. § 4600 et seq.), passed by Congress in 1970, its implementing regulations (49 C.F.R. Part 24); the California Relocation Assistance Law, California Government Code Section 7260 et seq (the "CRAL") and the California Relocation Assistance and Real Property Acquisition Guidelines, Title 25, California Code of Regulations, Chapter 6, Section 6000 et seq., (jointly the "Rules and Regulations"). A conforming relocation plan is being developed and is required.
Stormwater	SW1. Submit a Hydrology Report to the City of Menlo Park Public Works Department satisfaction of the site design measures that maximize pervious areas, source control measures to keep pollutants out of stormwater, use of construction BMPs, and post construction treatment measures.

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]

The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature: _____ Date: November 8, 2019

Name/Title/Organization: Cinnamon Crake, Associate, AEM Consulting

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Certifying Officer Signature: _____ Date: 11·12·2019

Name/Title: Kenneth Cole, Director
County of San Mateo, Department of Housing

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Gateway Family Housing Source Documentation

November 2019

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2. **Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), Bay Area Air Quality Management District (BAAQMD), and Bay Conservation and Development Commission (BCDC).** *Final Plan Bay Area.* Adopted July 18, 2013.

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4. **United States Census Bureau.** American Fact Finder. *2010 Demographic Profile.* [Online] [Cited: May 13, 2019.] http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1.

5. **County of San Mateo.** *FY 2013-14 - FY 2017-2018 Consolidated Plan.*

6. **Crake, Cinnamon.** Associate. *Site visit and personal knowledge.* s.l. : AEM Consulting, May 1, 2019. Report Preparer/Site Visits.

7. **Alphabet.** Google EARTH Pro. *Computer Program.* 2019.

8. **Santa Clara County Airport Land Use Commission.** *Comprehensive Land Use Plan, Santa Clara County, Norman Y. Mineta, San Jose International Airport.* May 25, 2011. Figure 7, Airport Safety Zones.

9. **City/County Association of Governments.** *Revised Airport Influence Area Boundary for San Carlos Airport -- Areas A & B.* October 2004.

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11. **United States Government.** The Coastal Barrier Resources Act of the United States. Enacted October 18, 1982. CBRA, Public Law 97-348.

12. **U.S. Department of Homeland Security.** *Flood Insurance Rate Map.* s.l. : Federal Emergency Managment Agency (FEMA), Effective Date: April 5, 2019. FIRM Panel No. 06081C0307F.

13. **U.S. Department of Housing and Urban Development.** *8-Step Process - Decision Making Process for Executive Order 11988 as Provide by 24 CFR Part 55.20, Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025.* s.l. : AEM Consulting, May 2019.

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15. **Bay Area Air Quality Management Tool.** *Highway Screening Analysis Tool.* [Google Earth KMZ file] s.l. : BAAQMD, 2019.

16. **Bay Area Air Quality Management District.** *Stationary Permitted Sources of Emissions.* [Google EARTH KMZ File] s.l. : BAAQMD, Accessed May 2019.

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18. San Francisco Bay Conservation and Development Commission. *San Francisco Bay Plan January 2006.* 50 California Street, Suite 2600, San Francisco, CA 94111 Phone: (415) 352-3600 FAX: (415) 352-3606 : s.n.

19. State of California. SFBCDC - Activities Requiring Permit Approval. *San Francisco Bay Conservation and Development Commission.* [Online] [Cited: May 19, 2019.] http://www.bcdc.ca.gov/permits/require-permit-approval.html.

20. County of San Mateo. *Local Coastal Program Policies.* s.l. : Planning and Building Department, June 2013.

21. Integrated Property Analysis, Inc. *Phase I Environmental Site Assessment, The Gateway Garden Apartments, 1317-1385 Willow Road, Menlo Park, California 94025.* Vista, CA : s.n., May 21, 2019. IPA Project #0138-0306.

22. City of Menlo Park. *Housing Element Update, General Plan Consistency Update, and Zoning Ordinance Amendments Environmental Assessment.* April 4, 2013. Figure 4.3-2, Special-Status Plant and Wildlife Species.

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Appendix A – Project Description

- Mithun Architects. *Gateway Family Housing, 1345 Willow Road, Menlo Park, CA - Plans & Drawings, Zoning Compliance Resubmittal.* San Francisco, CA : s.n., February 25, 2019. Project Number 1526000.

100% SD (MEP, STRUCT, MOD)
+
10% DD/ZONING COMPLIANCE RESUBMITTAL (ARCH, CIVIL, LA)

GATEWAY FAMILY HOUSING

MIDPEN HOUSING
1345 WILLOW ROAD
MENLO PARK, CA

ZONING COMPLIANCE RESUBMITTAL
FEBRUARY 25, 2019

MITHUN

SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
SHEET INDEX

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
G0.01
ZONING COMPLIANCE RESUBMITTAL

NOT FOR CONSTRUCTION

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425.741.1200

CONTACT: JOHN D. TOMAN (MECH/PLUMBING), ADAM FRENCH (ELEC)

VICINITY MAP

BUILDING DEPARTMENT NOTES

DEMOLITION: Demolition of 17 existing buildings containing 82 units and one community room required

CONSTRUCTION TYPE: Type V-A, sprinklered

OCCUPANCY GROUPS: Predominantly R-2, with a small amount of A-3, B, & S-2 occupancies

OCCUPANCY SEPARATIONS:
R-2: B-1 1 hr
R-2: S-2 1 hr
R-2: A-3 1 hr
S-2: A-3 1 hr
A-3: B-1 1 hr

	Allowable/ Required	Proposed
BUILDING HEIGHT:	60' max (w area increase)	54'-3"
	per CBC Table 504.3	
	4 stories	3 & 4 stories
	per CBC Table 504.4	
ALLOWABLE AREA:	41,601 SF per floor	20,540 SF max w/ area separation
	83,203 SF total per bldg	78,765 SF max w/ area separation

AREA INCREASE CALCULATION: {36,000 + [12,000 x 0.467]}x2 = 83,203 SF

EGRESS: Egress plans to be submitted with Building Permit Set

RESCUE WINDOWS: Provided to all sleeping rooms

ACCESSIBILITY: 100% of the units are adaptable and comply with 2016 CBC Chapter 11A 10% of the units (14 total) have added mobility features per 2010 ADA and FHA guidelines 4% of the units (6 total) have added communication features per 2010 ADA and FHA guidelines
Units with mobility features (14 required):
**Please reference sheets A2.01-A2.04 for locations; units marked with graphic ADA symbol*
1BR (7 required): 111, 201, 209, 229, 309, 327, 407
2BR (5 required): 123, 228, 321, 326, 412
3BR (2 required): 104, 301
Units with communication features (6 required):
**Please reference sheets A2.01-A2.04 for locations; units marked with "VHI"*
1BR (3 required): 125, 223, 323
2BR (2 required): 230, 401
3BR (1 required): 202

UNIT MIX:
66 1BR UNITS (47% of total)
50 2BR UNITS (36% of total)
24 1BR UNITS (17% of total)
140 TOTAL UNITS

BUILDING AREAS:

Area	Level	Area
Area A:	Level 1	20,540 SF
	Level 2	20,075 SF
	Level 3	20,540 SF
	Level 4	17,610 SF
	Total	78,765 SF
Area B:	Level 1	16,254 SF
	Level 2	15,578 SF
	Level 3	15,680 SF
	Level 4	2,649 SF
	Total	50,161 SF
Area C:	Level 1	12,167 SF
	Level 2	9,035 SF
	Level 3	9,346 SF
	Level 4	7,562 SF
	Total	38,110 SF
Gross Building Area:	Level 1	48,961 SF
	Level 2	44,688 SF
	Level 3	45,566 SF
	Level 4	27,821 SF
	Total	167,036 SF

*Please Note: Building areas are calculated to the face of core

PROJECT SUMMARY

140 units of affordable family housing and associated common spaces, with on-grade parking and open space

PROJECT ADDRESS

1345 WILLOW ROAD
MENLO PARK, CA
94025

PARCEL INFORMATION

APN: 055-383-560

LEGAL DESCRIPTION

SEE SURVEY DRAWING FOR DETAILS

ZONING INFORMATION

ZONE CLASSIFICATION: R-4-S high density residential

EASEMENTS: 20' P.U.E. along western edge of site (rear yard), 12' P.U.E. along eastern edge of property boundary (front yard)

OTHER: Requested abandonment of Frontage Rd. along east and south edges of site, to be incorporated into existing property boundary. See site diagrams on A1.01 for more information

SITE AREA: 129,810 SF (within existing property boundary)
164,000 SF (proposed property boundary- existing property plus a portion of Frontage Rd., as described in 2/A1.01)

	Allowable/ Required	Proposed
BUILDING HEIGHT:	5 stories	3 & 4 stories
	60'-0"	54'-3"
	per AHO Section 16.98.040 (B)	
DENSITY:	40.95 du/ac	37.23 du/ac (140/3.76 ac)
	Assumes 36.5% density bonus, per AHO 16.98.030 (A). Project may qualify for more, but is compliant with even the minimum density bonus allowed.	
BUILDING COVERAGE:	73,800 SF (45% of 164,000 SF)	53,313 SF (32.5%)
	per R-4-S Section 16.23.050 & AHO Section 16.98.040 (E)	
FLOOR-AREA RATIO:	117%	102%
	Assumes 22% increase for increased du/ac plus 5% increase, AHO Sec.16.98.040 (A)	
SETBACKS:		
Front	5' min	14'-7"
	per AHO Section 16.98.040 (F)	
Side	5' min	6-4" (South) 67'-3" (North)
	per AHO Section 16.98.040 (F)	
Rear	10' min	51'-4"
OPEN SPACE:	41,000 SF min (25% of 164,000 SF)	66,894 SF* (41%)
		**Includes common open space plus private decks at all levels Average private deck: 83 SF*
PARKING:		
Vehicular	177 spaces	177 spaces (15 ADA + 3 Van Accessible)
Electric Vehicles	14 EV charging spaces *10% of units*	14 EV charging spaces (Included in parking provided)
Bike Parking	70 long-term & 14 short-term	79 long-term & 14 short-term
	per AHO Section 16.98.040 (C.6)	

FRONTAGE IMPROVEMENTS:

a. Any frontage improvements which are damaged as a result of construction will be required to be replaced. All frontage improvement work shall be in accordance with the latest version of the City Standard Details.

b. An encroachment permit from the Engineering Division is required prior to any construction activities, including utility laterals, in the public right of way. In addition, the Applicant shall procure all additional permits from Caltrans and SFPUC prior to pursuing work along Willow Road and Ivy Drive respectively.

c. All improvements in Public ROW shall abide by Standard Details as set forth by the appropriate agency (City, Caltrans, SFPUC).

d. All utilities shall be adjusted to grade where there is overlap with proposed flatwork or other improvements.

e. Final tree species in public ROW is subject to approval from the City's Public Works Department and the City Arborist.

f. Alley intersection improvements at either end of 1200 block at Hamilton & Ivy suggested by the city. City & project team to coordinate on construction and financing logistics.

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SEATTLE / Pier 56, 1201 Alaskan Way, #200 Seattle, WA 98101 / 206.623.3344
SAN FRANCISCO / 660 Market Street, #300 San Francisco, CA 94104 / 415.956.0688
mithun.com

PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

NO DATE REVISION

DESIGN PARTNER AT
PROJECT MANAGER KB
PROJECT ARCHITECT AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS EO
CHECK

FOR PERMIT ONLY
THIS DOCUMENT HAS BEEN PREPARED FOR PERMIT APPLICATION AND IS SUBJECT TO REVIEW AND MODIFICATION BY GOVERNMENTAL AGENCIES

TITLE
PROJECT INFO

PROJECT NO. 1526000
DATE FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
G0.02
ZONING COMPLIANCE RESUBMITTAL

NOT FOR CONSTRUCTION

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3/1/2019 3:58:28 PM

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2 VIEW FROM COURTYARD
1 1/2" = 1'-0"

1 VIEW OF ENTRY FROM WILLOW ROAD
1 1/2" = 1'-0"

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Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
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mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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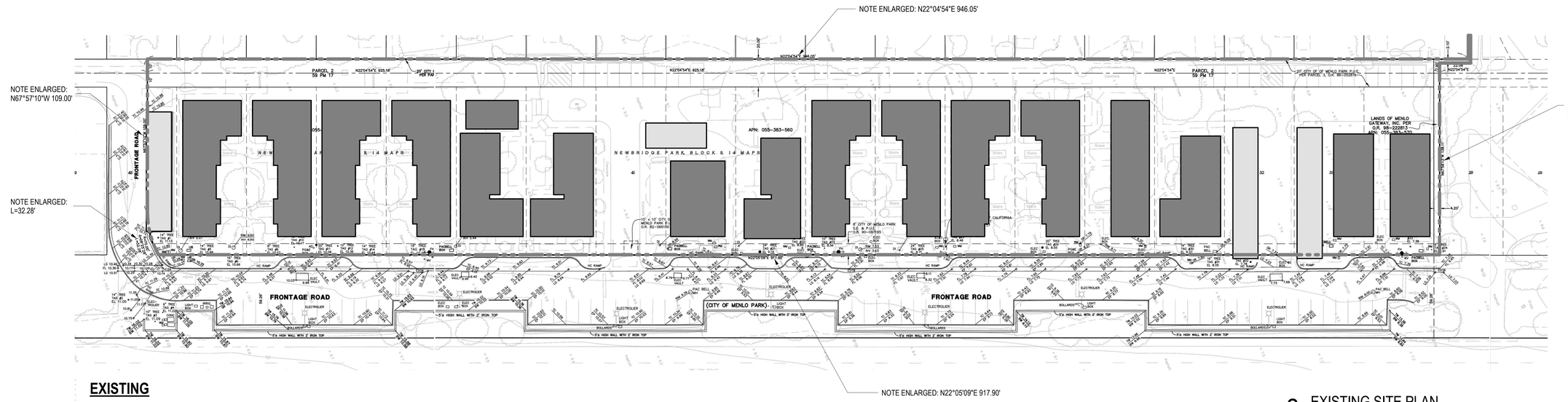
TITLE
PERSPECTIVES

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE: 36" x 42"

SHEET NUMBER
G0.03
ZONING COMPLIANCE RESUBMITTAL



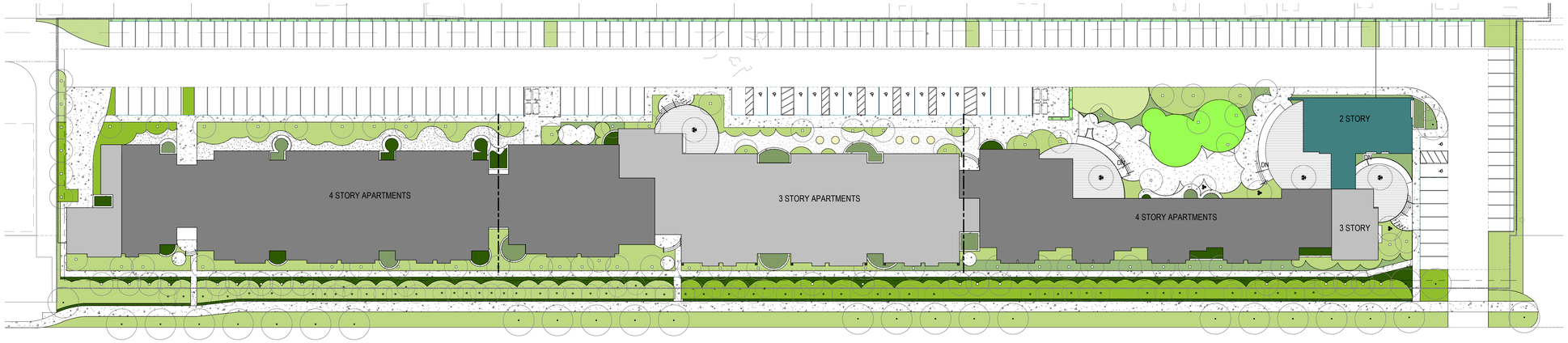
EXISTING

UNIT COUNT:	82 UNITS	
	STUDIO:	2 UNITS
	1BR	24 UNITS
	2BR:	32 UNITS
	3BR:	24 UNITS
PARKING SPACES:	119 (39 WITHIN EXISTING PROPERTY BOUNDARY, REMAINING ON FRONTAGE RD.)	
FAR:	50%	
BUILDING HEIGHT:	2 STORIES, +/- 28'-30' MAX	
OVERALL LOT DIMS:	917.9' x 140.21'	
SETBACKS:	FRONT:	10'
	SIDE:	10' (NORTH), 21' (SOUTH)
	REAR:	30'

2 EXISTING SITE PLAN
3/32" = 1'-0"

PROPERTY BOUNDARY

NOTE: PLEASE REFERENCE SHEET L0.01 FOR ALL EXISTING TREES, TREE NUMBERS, SPECIES, AND SIZE IN DIAMETER AS WELL AS ALL TREES TO REMAIN AND TREES TO BE REMOVED.



PROPOSED

UNIT COUNT:	140 UNITS	
	1BR:	66 UNITS
	2BR:	50 UNITS
	3BR:	24 UNITS
PARKING SPACES:	177	
FAR:	103%	
BUILDING HEIGHT:	4 STORIES, 54'-3" MAX	
OVERALL LOT DIMS:	~941'-3 1/2" x ~174'-2 1/2"	
SETBACKS:	FRONT:	14'-7"
	SIDE:	6'-4" (SOUTH), 67'-3" (NORTH)
	REAR:	51'-4"

1 PROPOSED BUILDING FOOTPRINT
1/32" = 1'-0"

PROPERTY BOUNDARY

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San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
EXISTING SITE PLAN AND PROPOSED BUILDING FOOTPRINT

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
G0.04
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE: 36" x 42"

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1 AERIAL VIEW
NTS

1. VIEW ALONG SOUTH LEG OF FRONTAGE RD.

2. LOOKING NORTH ALONG FRONTAGE RD.

3. LOOKING NORTH ALONG FRONTAGE RD.

4. REAR YARD FROM PARKING AREA

5. REAR YARD FROM NORTH PARKING AREA

6. LOOKING NORTH ALONG FRONTAGE RD.

7. TYPICAL REAR YARD VIEW

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
EXISTING SITE PHOTOS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
G0.05
ZONING COMPLIANCE RESUBMITTAL

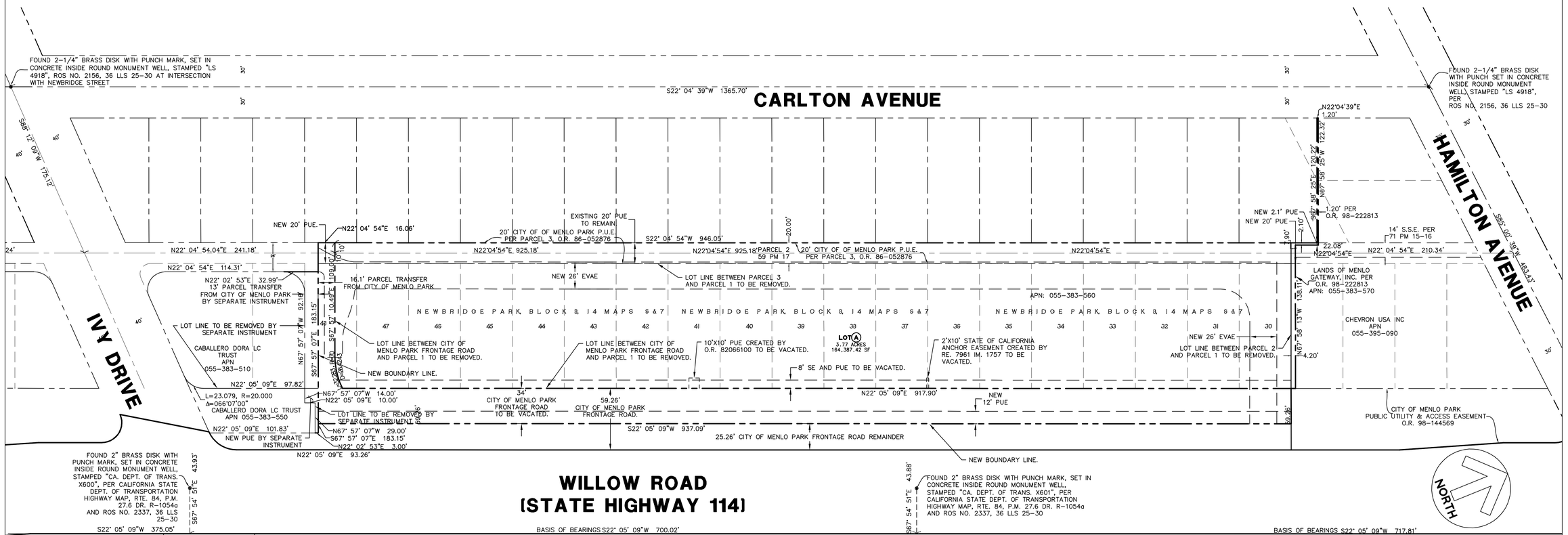
ORIGINAL SHEET SIZE 30" x 42"

VESTING TENTATIVE MAP

GATEWAY FAMILY HOUSING

1345 WILLOW ROAD

MENLO PARK, SAN MATEO COUNTY, CALIFORNIA



GENERAL NOTES

1. VESTING TENTATIVE MAP: THIS VESTING TENTATIVE MAP IS BEING FILED IN ACCORDANCE WITH ARTICLE 2, SECTION 86452 AND CHAPTER 4.5 OF THE SUBDIVISION ACT MAP.

2. MULTIPLE FINAL MAPS: PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT, THE DEVELOPER RESERVES THE RIGHT TO FILE MULTIPLE FINAL MAPS, ONLY THE IMPROVEMENTS REQUIRED TO SUPPORT THE LEVEL OF DEVELOPMENT, AS DETERMINED BY THE CITY, OF EACH PARTICULAR FINAL MAP NEEDS TO BE COMPLETED OR BOUNDED.

3. AREA: THE BOUNDARY OF THIS SUBDIVISION CONTAINS 3.75± ACRES AND IS PROPOSED TO BE ONE-LOT.

4. A PUBLIC UTILITY EASEMENT IN THE FAVOR OF THE CITY WILL BE CREATED TO FACILITATE MAINTENANCE OF UTILITY MAINS, METERS, AND APPURTENANCES. LATERALS BETWEEN THE BUILDING AND METERS WILL BE PRIVATELY OWNED AND MAINTAINED.

5. AN EMERGENCY VEHICLE ACCESS EASEMENT WILL BE CREATED TO FACILITATE THE MOVEMENTS OF EMERGENCY VEHICLES AND TRASH COLLECTION VEHICLES ONSITE.

6. EASEMENT DIMENSIONS ARE APPROXIMATE. EXACT DIMENSIONS AND AREAS WILL BE PROVIDED ON THE PARCEL MAP.

7. ANY FRONTAGE IMPROVEMENTS WHICH ARE DAMAGED AS A RESULT OF CONSTRUCTION WILL BE REQUIRED TO BE REPLACED. ALL FRONTAGE IMPROVEMENT WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE CITY STANDARD DETAILS.

8. AN ENCROACHMENT PERMIT FROM THE ENGINEERING DIVISION IS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES, INCLUDING UTILITY LATERALS, IN THE PUBLIC RIGHT OF WAY. IN ADDITION, THE APPLICANT SHALL PROCURE ALL ADDITIONAL PERMITS FROM CALTRANS AND SFPUC PRIOR TO PURSUING WORK ALONG WILLOW ROAD AND IVY DRIVE RESPECTIVELY,

9. THE CIVIL PLANS HEREIN SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DRAWINGS AT TIME OF BUILDING AND ENCROACHMENT PERMIT ISSUANCE.

PROJECT DATA

1. OWNER/DEVELOPER: MIDPEN HOUSING
MID-PENINSULA HOUSING COALITION
303 VINTAGE PARK DRIVE, SUITE 250
FOSTER CITY, CA. 94404
CONTACT: NESREEN KAWAR
(650) 393-3601

2. CIVIL ENGINEER: BKF ENGINEERS
1730 N. FIRST ST. DRIVE, SUITE 600
SAN JOSE, CA 95112
CONTACT: COLE GAUMNITZ
(408) 467-9100

4. PROPERTY DESCRIPTION: LOTS 1 & 2, & PORTIONS OF FRONTAGE ROAD OF BOOK 59 OF MAPS PAGE 17.

5. ASSESSORS PARCEL NO: 055-383-560, 570

6. GENERAL PLAN: R4S (AHO) – HIGH-DENSITY RESIDENTIAL DISTRICT, SPECIAL, AFFORDABLE HOUSING OVERLAY

7. EXISTING ZONING: R4S (AHO)

8. PROPOSED ZONING: R4S (AHO)

9. EXISTING USE: RESIDENTIAL

10. PROPOSED USE: RESIDENTIAL

11. GROSS AREA: 3.75± ACRES

12. NUMBER OF UNITS: 140 UNITS

13. NUMBER OF LOTS: 1

14. UTILITIES:
A. WATER:
PUBLIC: MENLO PARK MUNICIPAL WATER DISTRICT
PRIVATE: MIDPEN HOUSING
B. SANITARY SEWER: WEST BAY SANITARY DISTRICT
C. STORM DRAIN:
PUBLIC: CITY OF MENLO PARK
PRIVATE: MIDPEN HOUSING
D. GAS/ELECTRIC: PACIFIC GAS & ELECTRIC
E. TELEPHONE: AT&T/SBC
F. CABLE TV: COMCAST

15. BASIS OF BEARING: THE BEARING N22°05'09"E OF THE EASTERLY LINE OF WILLOW ROAD, AS SHOWN ON THIS EXHIBIT MAP IS BASED ON THE RECORD OF SURVEY 2337, FILED FOR RECORD ON JUNE 4, 2012 IN BOOK 37 OF LLS MAPS AT PAGE 28, RECORDS OF SAN MATEO COUNTY, CALIFORNIA.

16. FLOOD ZONE: THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.
A. THE PROJECT IS BUILT IN COMPLIANCE WITH THE CITY'S FLOOD DAMAGE PREVENTION ORDINANCE, CHAPTER 12, SECTION 42.
B. ALL MATERIALS BELOW BFE SHALL BE RESISTANT TO FLOOD DAMAGE. (I.E., CONCRETE, REDWOOD OR PRESSURE TREATED DOUGLAS FIR).
C. THE BOTTOM ELEVATION OF ALL APPLIANCES AND UTILITIES (METERS, AIR CONDITIONING UNITS, ETC) SHALL BE AT DFE, 12" ABOVE BFE. (DFE = 12" + BFE)
D. STORM RUNOFF RESULTING FROM THE PROJECT'S GRADING AND DRAINAGE ACTIVITIES SHALL NOT ENCROACH ONTO ANY NEIGHBORING LOT. RUNOFF MUST BE CONTAINED ON-SITE.
E. PROJECT WILL REQUEST FOR A CLOMR-F FROM DHS-FEMA

17. R/W VACATION: VACATION IS PENDING APPROVAL AND WILL BE RECORDED AT A LATER DATE.

SHEET INDEX

NO.	TITLE
1	TM-1 VESTING TENTATIVE MAP
2	TM-1.01 BOUNDARY AND TOPOGRAPHIC SURVEY
3	TM-1.02 BOUNDARY AND TOPOGRAPHIC SURVEY
4	TM-2.01 DEMOLITION PLAN
5	TM-2.02 DEMOLITION PLAN
6	TM-3.01 PRELIMINARY SITE PLAN
7	TM-3.02 PRELIMINARY SITE PLAN
8	TM-4.01 PRELIMINARY GRADING PLAN
9	TM-4.02 PRELIMINARY GRADING PLAN
10	TM-5.01 PRELIMINARY STORMWATER PLAN
11	TM-6.01 PRELIMINARY UTILITY PLAN
12	TM-6.02 PRELIMINARY UTILITY PLAN

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- LOT LINES
- CALTRANS RIGHT OF WAY
- STREET CENTER LINE
- EASEMENT LINE

ABBREVIATIONS

BFE	=	BASE FLOOD ELEVATION
D	=	DELTA ANGLE
DFE	=	DESIGN FLOOD ELEVATION
E	=	EAST
EVAE	=	EMERGENCY VEHICLE ACCESS EASEMENT
L	=	LENGTH
MAE	=	MAINTENANCE ACCESS EASEMENT
N	=	NORTH
O.R.	=	OFFICIAL RECORD
PAE	=	PUBLIC ACCESS EASEMENT
PM	=	PARCEL MAP
PUE	=	PUBLIC UTILITY EASEMENT
R	=	RADIUS
R/W	=	RIGHT-OF-WAY
ROS	=	RECORD OF SURVEY
RTE	=	ROUTE
S	=	SOUTH
S.E.	=	SIDEWALK EASEMENT
W	=	WEST

PURPOSE OF MAP

A "VESTING TENTATIVE MAP" IS A MAP WHICH IS REQUIRED TO BE PREPARED FOR THE PURPOSE OF SHOWING THE DESIGN AND IMPROVEMENT OF A PROPOSED SUBDIVISION, AND TO ALSO SHOW THE EXISTING CONDITIONS IN AND AROUND SUCH PROPOSED SUBDIVISION.

PROJECT DESCRIPTION

MIDPEN HOUSING CORPORATION IS REDEVELOPING THE EXISTING PROPERTY INTO AFFORDABLE APARTMENTS FOR LOW INCOME FAMILIES AND ASSOCIATED AMENITIES, INCLUDING RESIDENT SERVICE SPACES, BUILDING MANAGEMENT SPACES, LOUNGE AND COMMUNITY GATHERING SPACES, LAUNDRY ROOMS, AND AN EXERCISE ROOM.

ENGINEER'S STATEMENT

THIS VESTING TENTATIVE MAP HAS BEEN PREPARED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE.

02/25/2019

COLE GAUMNITZ, P.E. DATE
BKF ENGINEERS
R.C.E. NO. 75787

REGISTERED PROFESSIONAL ENGINEER
FRITZ COLE GAUMNITZ
75787
CIVIL
STATE OF CALIFORNIA

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

BKF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS
1730 N. FIRST STREET,
SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
www.bkf.com

PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

VESTING TENTATIVE MAP

NO.	DATE	REVISION

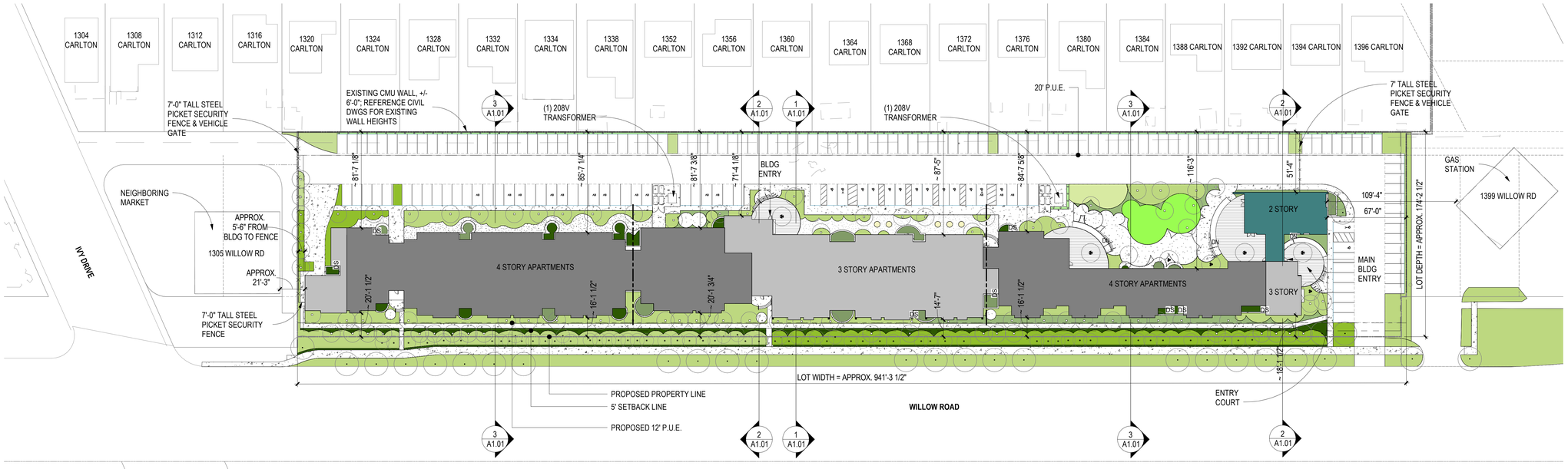
PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

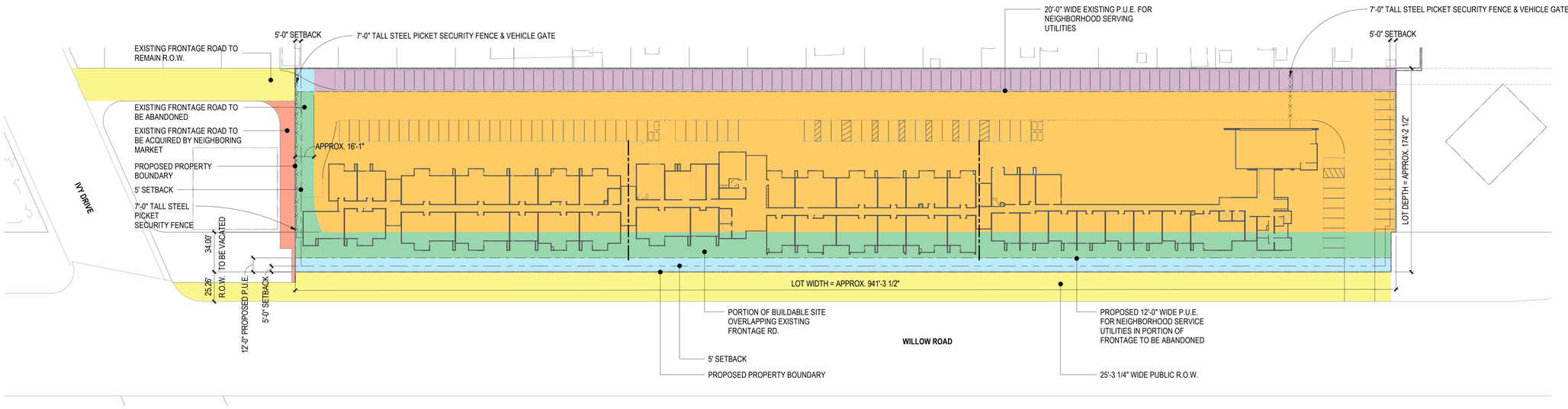
TITLE
VESTING TENTATIVE MAP
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
TM-1

DRAWING NAME: D:\20156154_I-300_W111ce_Rd_Gateway_Fwd\ENGINEER\SHEETS\TMAP\I-300M-TMAP.dwg
LAST SAVED: 2/25/2019 4:18
PLOTTED BY: gaum



2 SITE PLAN
1" = 40'-0"



1 SITE BOUNDARY DIAGRAM
1" = 40'-0"

EXISTING SITE AREA:	129,810 SF
R.O.W. ABANDONMENT TO BE ACQUIRED:	34,190 SF
TOTAL PROPOSED SITE AREA:	**164,000 SF**

PROPERTY BOUNDARY COLOR KEY:

- PROPOSED PROPERTY
  - EXIST. PROP.
    - EXISTING PUBLIC UTILITY EASEMENT
    - EXISTING BUILDABLE SITE AREA
  - ABANDONED R.O.W.
    - EXISTING FRONTAGE ROAD TO BE ABANDONED (ANY EXISTING UTILITIES IN THIS ZONE TO BE RELOCATED)
    - EXISTING FRONTAGE ROAD TO BE ABANDONED (PROPOSED PUBLIC UTILITY EASEMENT)
    - EXISTING PUBLIC RIGHT OF WAY TO BE ACQUIRED BY SOLESKA MARKET (TO BE COORDINATED BY CITY)
    - EXISTING PUBLIC RIGHT OF WAY

PROPERTY BOUNDARY LINE KEY:

- PROPOSED PROPERTY LINE
- 5' SETBACK
- PUBLIC UTILITY EASEMENT
- SECURITY FENCE AND/OR VEHICLE GATE

0' 10' 20' 40'

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE: 36" x 42"

MITHUN

SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
SITE BOUNDARY DIAGRAM

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A1.01
ZONING COMPLIANCE RESUBMITTAL

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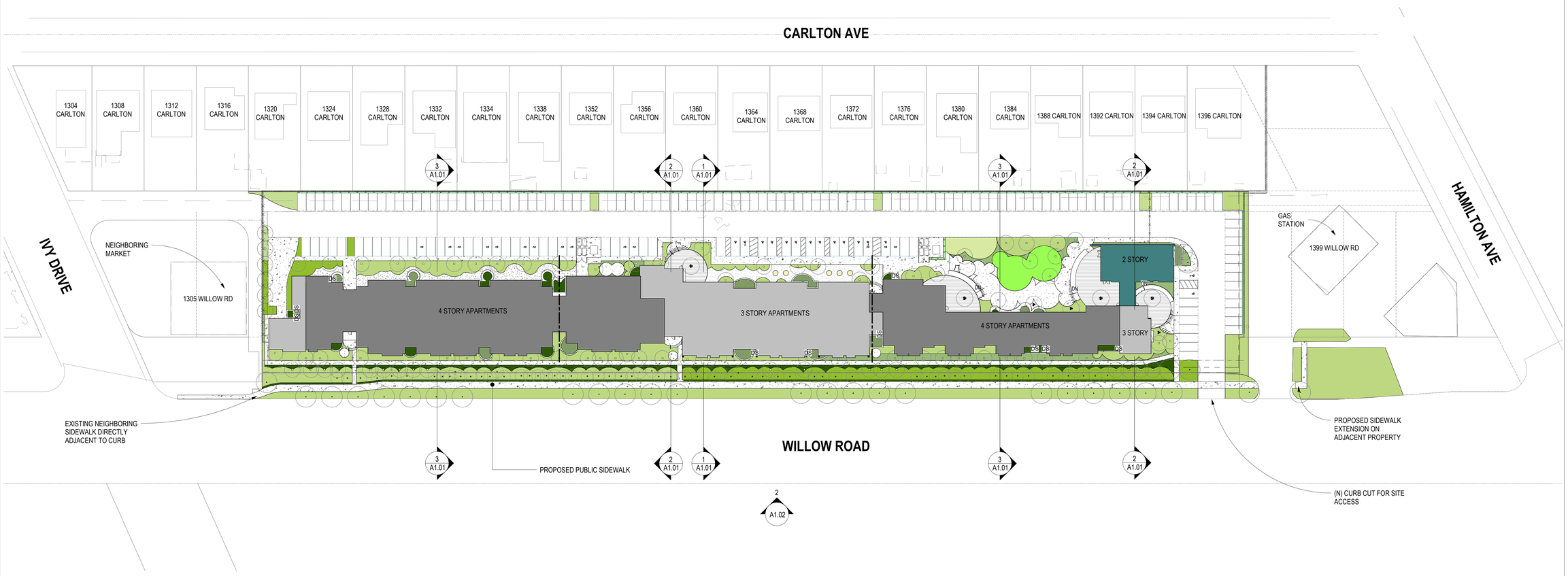
2/27/2019 8:00:40 PM

2 WILLOW STREETSCAPE ELEVATION
1" = 40'-0"



1 SITE PLAN
1" = 40'-0"

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Seattle, WA 98101 / 206.623.3344

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San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
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PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
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TITLE
STREETSCAPE ELEVATION AND PLAN

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A1.02
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE: 36" x 42"

2/22/2019 2:29:00 PM

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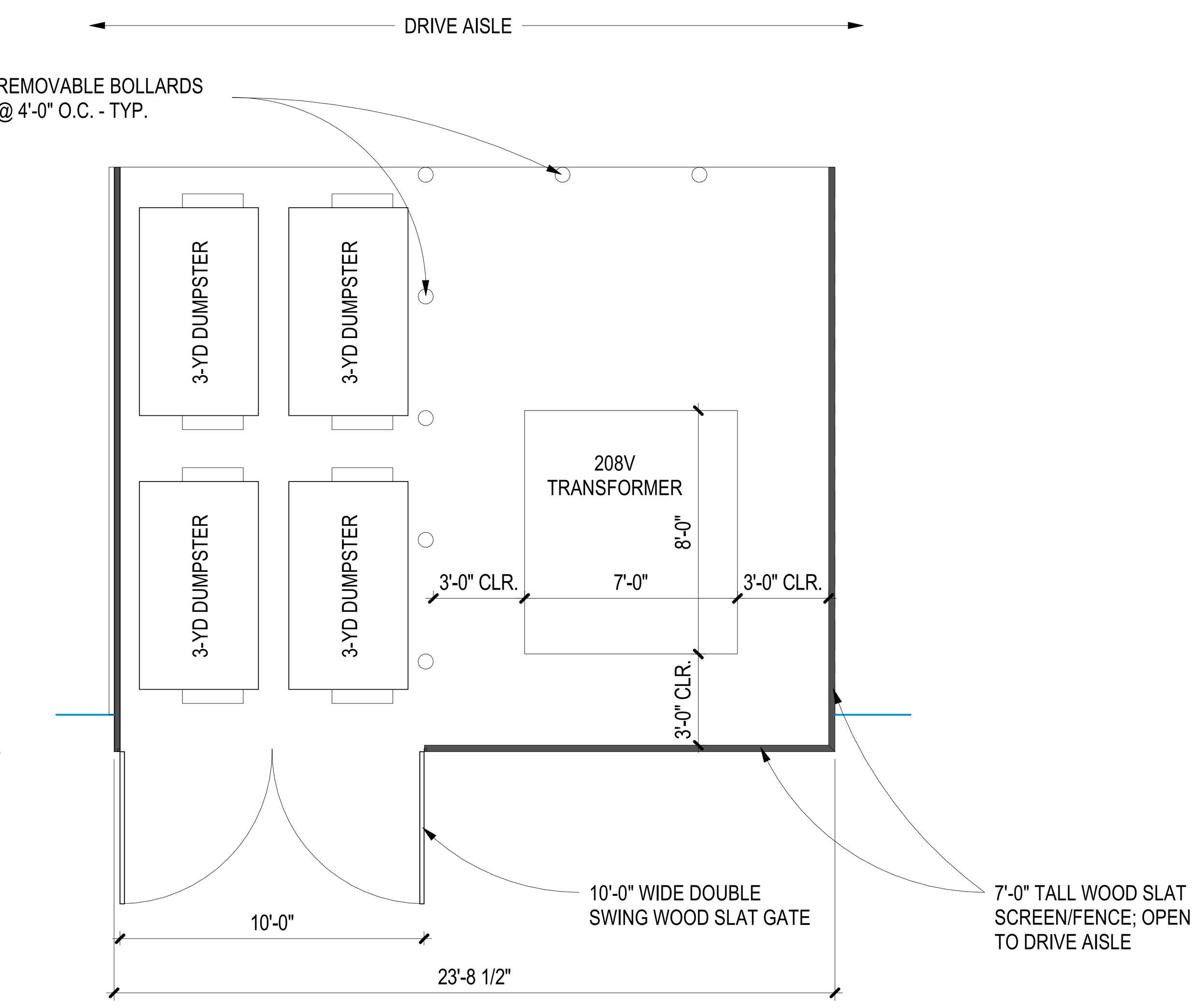
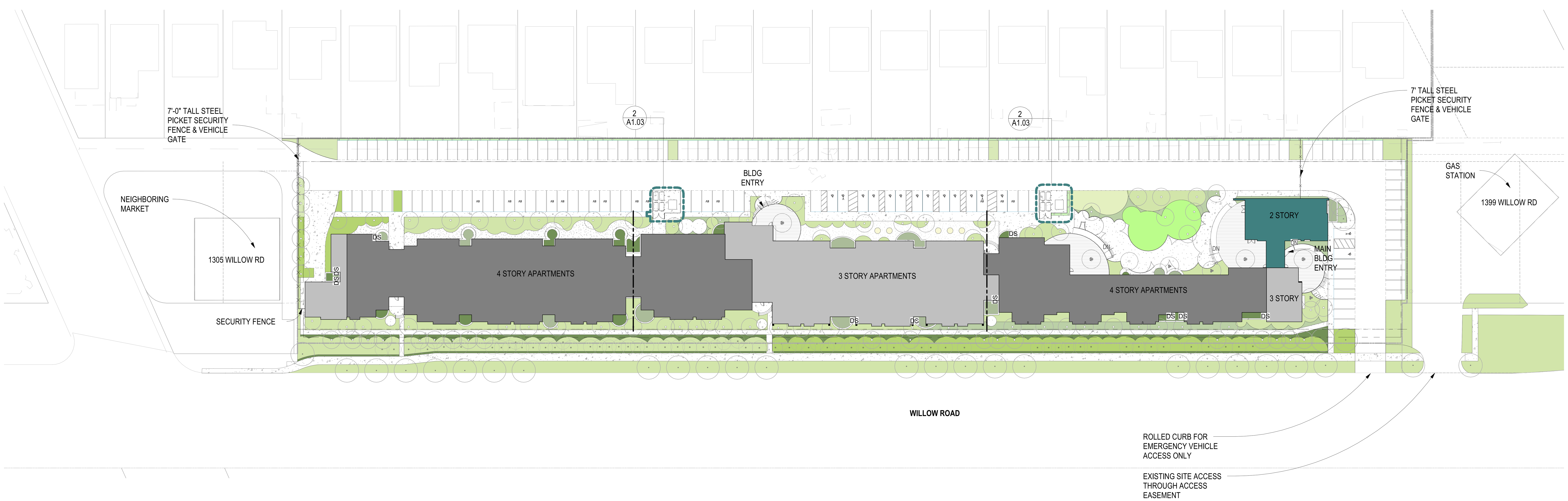


2 PARKING PLAN - ENLARGED TRASH ENCLOSURE

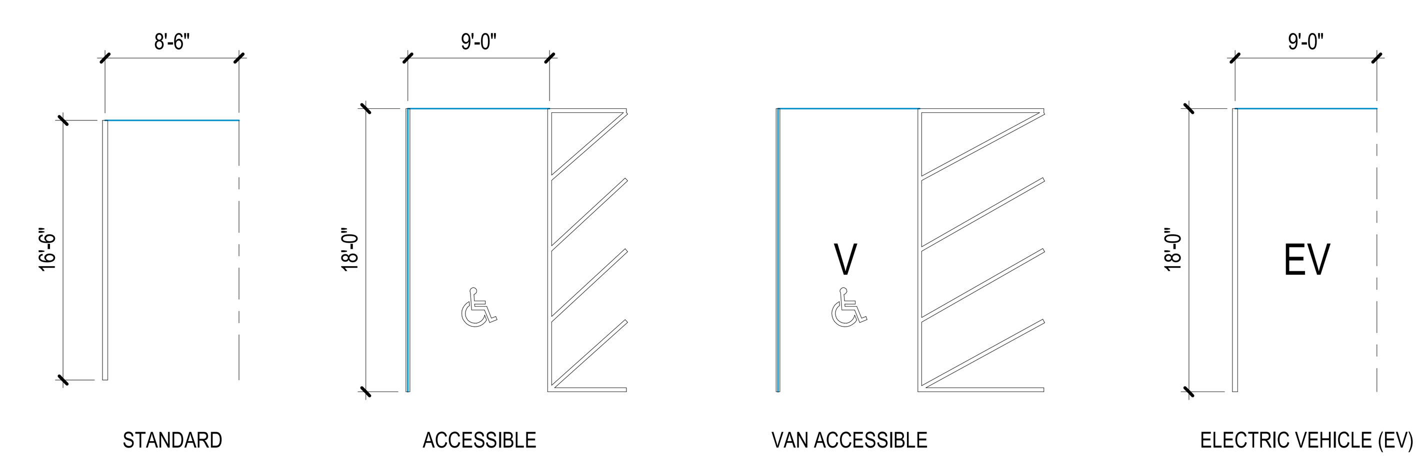
1/4" = 1'-0"



1 SITE PLAN

1" = 40'-0"

PARKING COUNT			
PARKING REQUIRED	177 STALLS		1 STALL PER 1BR; 1.5 STALLS PER 2BR & 3BR
VAN ACCESSIBLE REQ.	3 STALLS	9'-0"(+8'-0" ACCESS AISLE)x18'-0"	1 PER EVERY 6 ADA STALLS (INCLUDED IN ADA STALL COUNT)
ADA STALLS REQUIRED	15 STALLS	9'-0"(+5'-0" ACCESS AISLE)x18'-0"	1 STALL PER UNIT WITH MOBILITY FEATURES (10% OF UNITS PER TCAC) + 2% OF 37 (STALLS PROVIDED BEYOND 1:1 RATIO FOR UNITS)
STANDARD STALLS PROVIDED	162 STALLS	8'-6"x16'-6"	
EV PARKING	14 STALLS	9'-0"x18'-0"	10% OF UNITS
TOTAL PARKING PROVIDED	177 STALLS		INCLUDES STANDARD STALLS + ADA STALLS + EV PARKING)



PARKING LEGEND

1/8" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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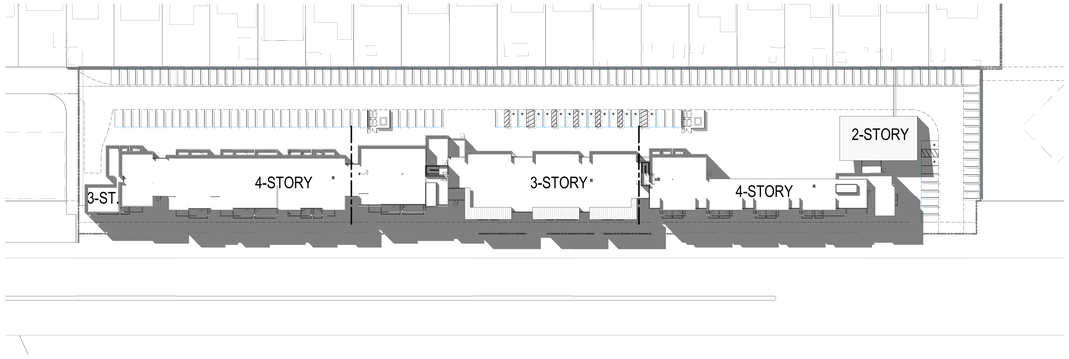
TITLE
PARKING PLAN

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

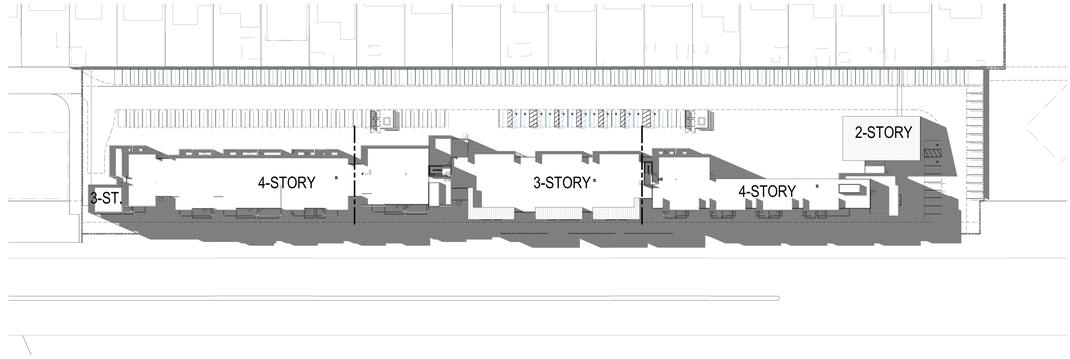
ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
A1.03
ZONING COMPLIANCE RESUBMITTAL

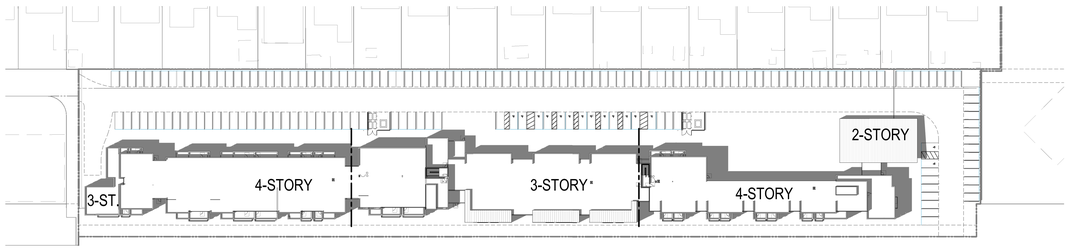
NOT FOR CONSTRUCTION



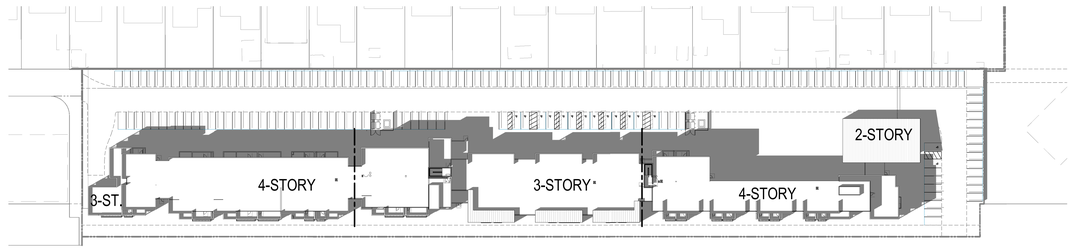
6 SHADOW STUDY - APR 21 - 3 PM
1/64" = 1'-0"



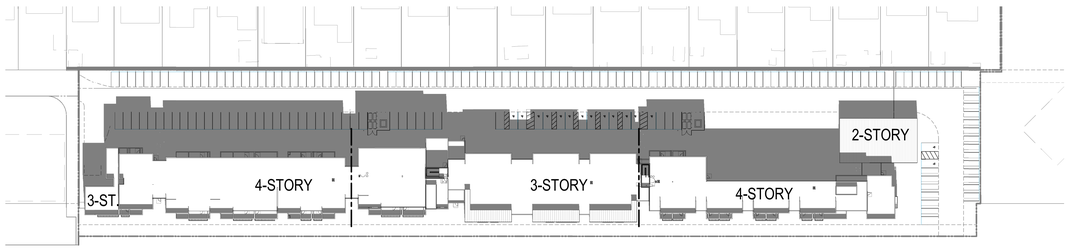
3 SHADOW STUDY - FEB 21 - 3 PM
1/64" = 1'-0"



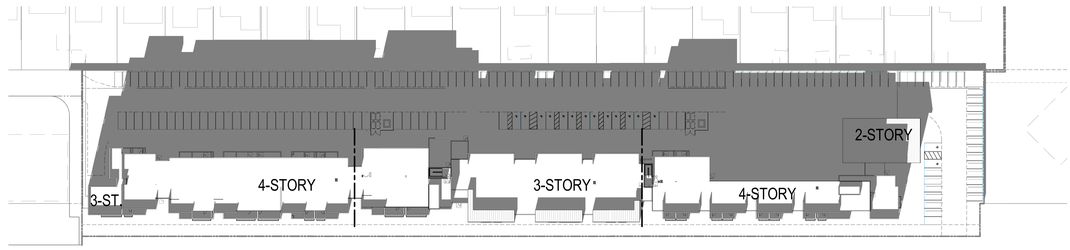
5 SHADOW STUDY - APR 21 - 12 PM
1/64" = 1'-0"



2 SHADOW STUDY - FEB 21 - 12 PM
1/64" = 1'-0"



4 SHADOW STUDY - APR 21 - 9 AM
1/64" = 1'-0"



1 SHADOW STUDY - FEB 21 - 9 AM
1/64" = 1'-0"

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San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
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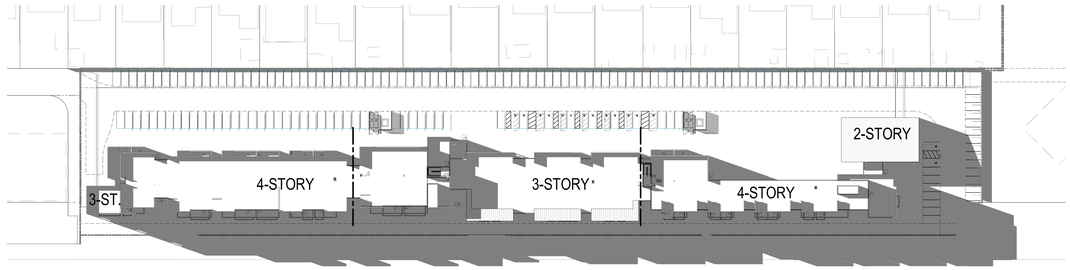
TITLE
SHADOW STUDY - FEB/APR

PROJECT NO
1526000
DATE
FEBRUARY 25, 2019

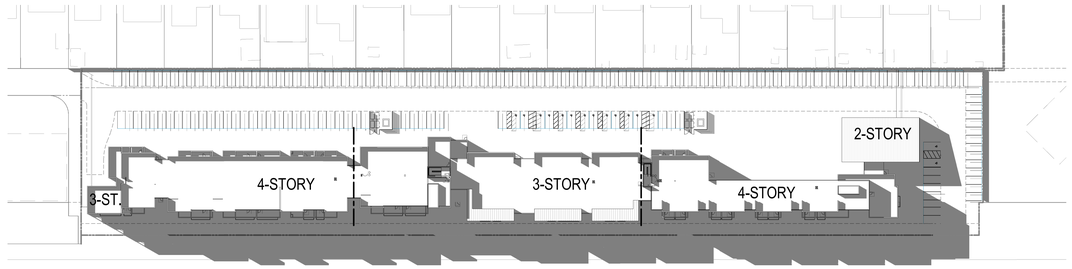
SHEET NUMBER
A1.04
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

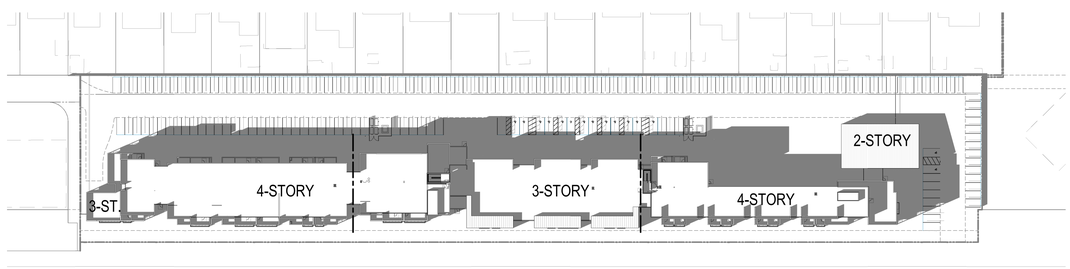
NOT FOR CONSTRUCTION



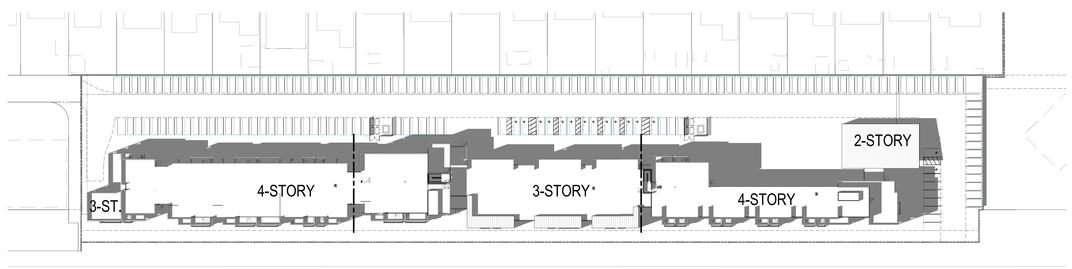
6 SHADOW STUDY - DEC 21 - 3 PM
1/64" = 1'-0"



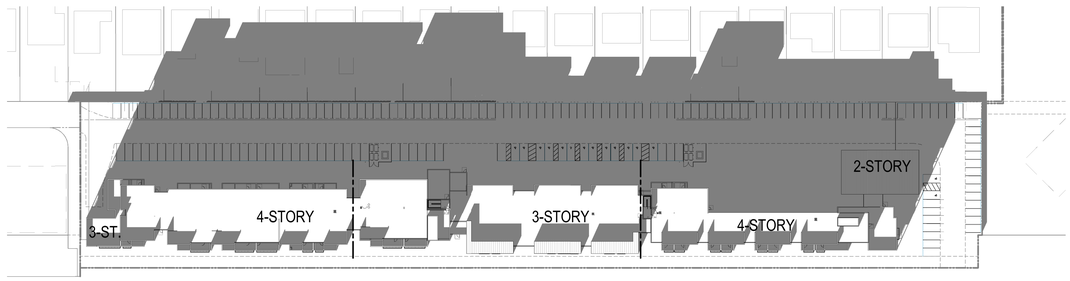
3 SHADOW STUDY - OCT 21 - 3 PM
1/64" = 1'-0"



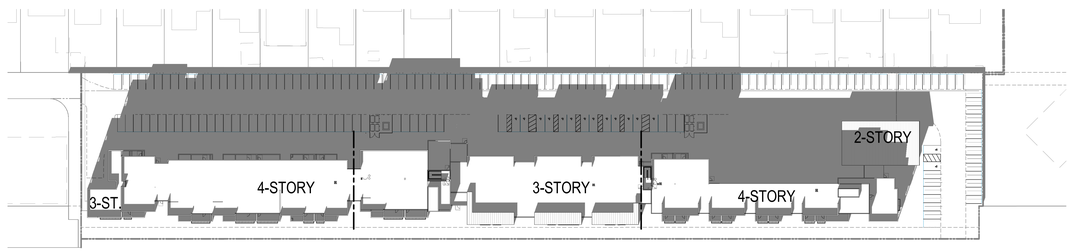
5 SHADOW STUDY - DEC 21 - 12 PM
1/64" = 1'-0"



2 SHADOW STUDY - OCT 21 - 12 PM
1/64" = 1'-0"



4 SHADOW STUDY - DEC 21 - 9 AM
1/64" = 1'-0"



1 SHADOW STUDY - OCT 21 - 9 AM
1/64" = 1'-0"

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mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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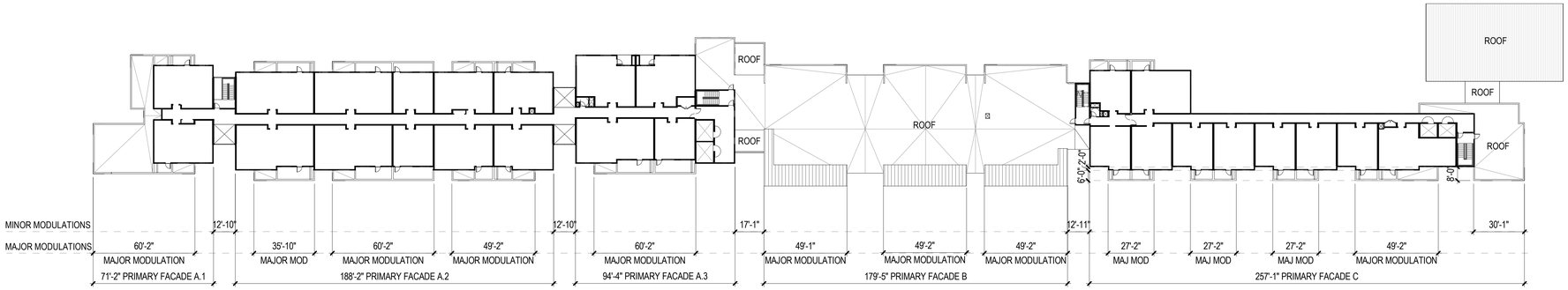
TITLE
SHADOW STUDY - OCT/DEC

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

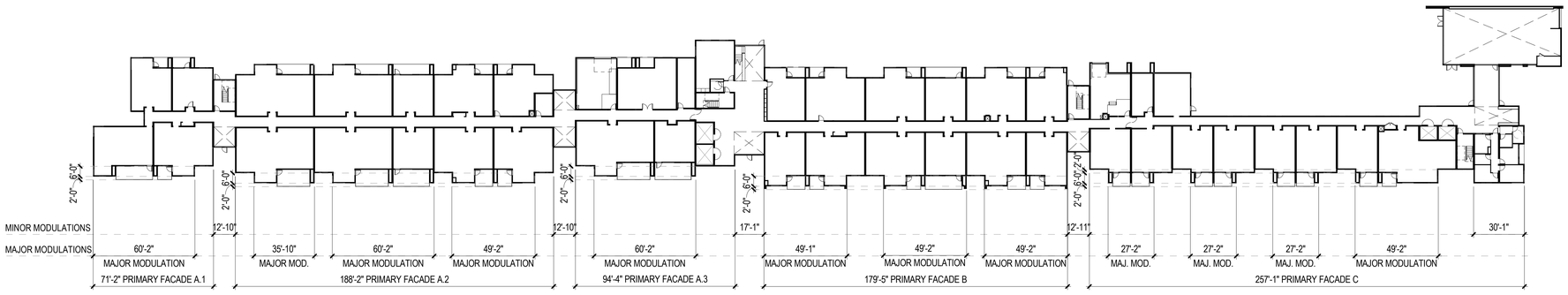
SHEET NUMBER
A1.05
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

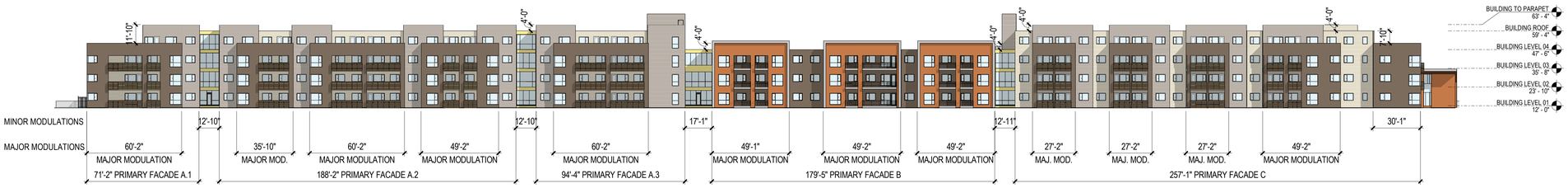
NOT FOR CONSTRUCTION



3 LEVEL 04 - BUILDING MODULATION
1/32" = 1'-0"



2 LEVELS 01, 02, & 03 - BUILDING MODULATION
1/32" = 1'-0"



1 EAST ELEV MODULATION DIAGRAM
1/32" = 1'-0"

NOT FOR CONSTRUCTION

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mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
MODULATION EXHIBIT

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE: 36" x 42"

SHEET NUMBER
A1.06
ZONING COMPLIANCE RESUBMITTAL

2/22/2019 2:31:24 PM

2/22/2019 2:31:39 PM

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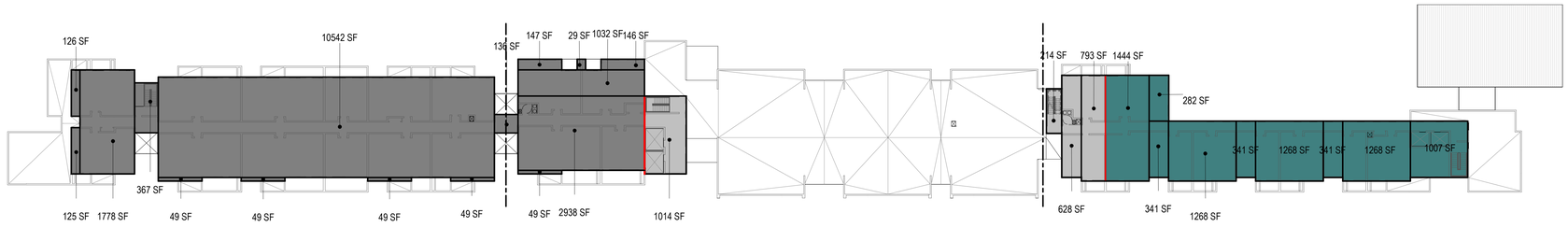
Use one of the attached/viewed media, shall constitute an acceptance of the above.

LEVEL 4 - A
29 SF
49 SF
49 SF
49 SF
49 SF
49 SF
125 SF
126 SF
136 SF
146 SF
147 SF
367 SF

LEVEL 4 - A
1032 SF
1778 SF
2938 SF
10542 SF
17610 SF

LEVEL 4 - B
214 SF
628 SF
793 SF
1014 SF
2649 SF

LEVEL 4 - C
282 SF
341 SF
341 SF
341 SF
1007 SF
1268 SF
1268 SF
1268 SF
1444 SF
7562 SF



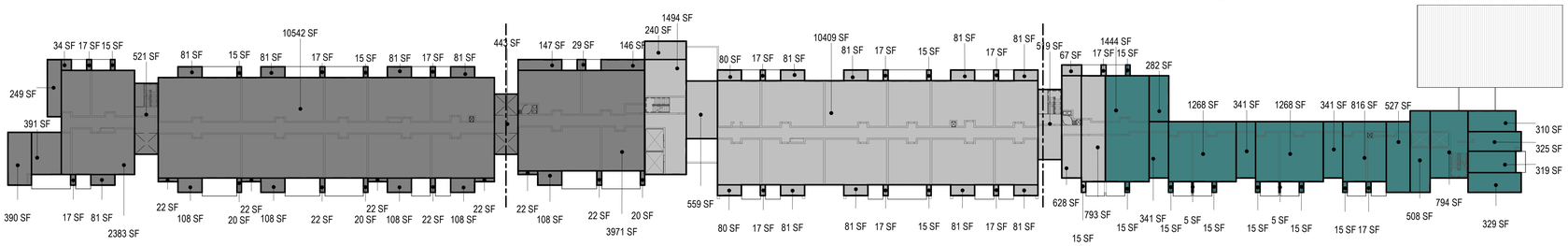
4 LEVEL 04 GROSS AREA CALCULATIONS
1/32" = 1'-0"

LEVEL 3 - A
15 SF
15 SF
15 SF
17 SF
17 SF
17 SF
17 SF
20 SF
20 SF
20 SF
22 SF
22 SF
22 SF
22 SF
22 SF
22 SF
22 SF
29 SF
34 SF
81 SF
81 SF
81 SF
81 SF
108 SF

LEVEL 3 - A
108 SF
108 SF
108 SF
108 SF
146 SF
147 SF
249 SF
390 SF
391 SF
443 SF
521 SF
2383 SF
3971 SF
10542 SF
20540 SF

LEVEL 3 - B
15 SF
15 SF
15 SF
17 SF
17 SF
17 SF
17 SF
17 SF
17 SF
67 SF
80 SF
80 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
240 SF
519 SF
559 SF
628 SF
793 SF
1494 SF
10409 SF
15680 SF

LEVEL 3 - C
5 SF
5 SF
15 SF
15 SF
15 SF
15 SF
15 SF
15 SF
15 SF
17 SF
282 SF
310 SF
319 SF
325 SF
329 SF
341 SF
341 SF
341 SF
508 SF
527 SF
794 SF
816 SF
1268 SF
1268 SF
1444 SF
9346 SF



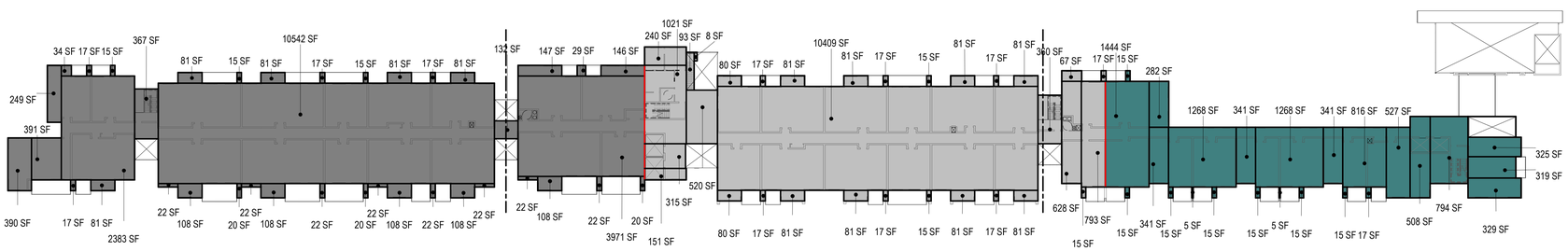
3 LEVEL 03 GROSS AREA CALCULATIONS
1/32" = 1'-0"

LEVEL 2 - A
15 SF
15 SF
15 SF
17 SF
17 SF
17 SF
17 SF
20 SF
20 SF
20 SF
22 SF
22 SF
22 SF
22 SF
22 SF
29 SF
34 SF
81 SF
81 SF
81 SF
81 SF
108 SF

LEVEL 2 - A
81 SF
108 SF
108 SF
108 SF
108 SF
108 SF
132 SF
146 SF
147 SF
249 SF
367 SF
390 SF
391 SF
2383 SF
3971 SF
10542 SF
20075 SF

LEVEL 2 - B
8 SF
15 SF
15 SF
15 SF
17 SF
17 SF
17 SF
17 SF
17 SF
67 SF
80 SF
80 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
93 SF
151 SF
240 SF
315 SF
360 SF
520 SF
628 SF
793 SF
1021 SF
10409 SF
15578 SF

LEVEL 2 - C
5 SF
5 SF
15 SF
15 SF
15 SF
15 SF
15 SF
15 SF
15 SF
17 SF
282 SF
319 SF
325 SF
329 SF
341 SF
341 SF
341 SF
508 SF
527 SF
794 SF
816 SF
1268 SF
1268 SF
1444 SF
9035 SF



2 LEVEL 02 GROSS AREA CALCULATIONS
1/32" = 1'-0"

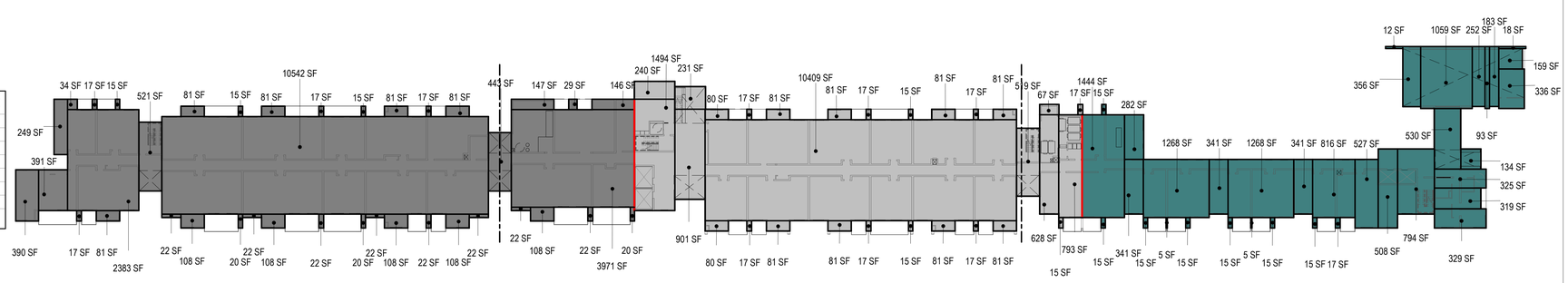
LEVEL 1 - A
15 SF
15 SF
15 SF
17 SF
17 SF
17 SF
17 SF
20 SF
20 SF
20 SF
22 SF
22 SF
22 SF
22 SF
22 SF
22 SF
22 SF
29 SF
34 SF
81 SF
81 SF
81 SF
81 SF
81 SF
108 SF
108 SF

LEVEL 1 - A
108 SF
108 SF
108 SF
146 SF
147 SF
249 SF
390 SF
391 SF
443 SF
521 SF
2383 SF
3971 SF
10542 SF
20540 SF

LEVEL 1 - B
15 SF
15 SF
15 SF
17 SF
17 SF
17 SF
17 SF
17 SF
17 SF
67 SF
80 SF
80 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
81 SF
231 SF
240 SF
519 SF
628 SF
793 SF
901 SF
1494 SF
10409 SF
16254 SF

LEVEL 1 - C
5 SF
5 SF
12 SF
15 SF
15 SF
15 SF
15 SF
15 SF
15 SF
17 SF
18 SF
93 SF
134 SF
159 SF
183 SF
252 SF
282 SF
319 SF
325 SF
329 SF
336 SF
341 SF
341 SF
341 SF
356 SF
508 SF
527 SF

LEVEL 1 - C
530 SF
794 SF
816 SF
1059 SF
1268 SF
1268 SF
1444 SF
12167 SF



1 LEVEL 01 GROSS AREA CALCULATIONS
1/32" = 1'-0"

AREA SEPARATION LEGEND

- AREA A
- AREA B
- AREA C
- Calculating...

TOTAL BUILDING GROSS AREA (BY LEVEL)	
Level	Area
BUILDING LEVEL 01	48961 SF
BUILDING LEVEL 02	44688 SF
BUILDING LEVEL 03	45566 SF
BUILDING LEVEL 04	27821 SF
TOTAL BUILDING GROSS AREA	**167036 SF**

TOTAL BUILDING GROSS AREA (BY BUILDING)	
Name	Area
AREA A	78766 SF
AREA B	50160 SF
AREA C	38109 SF
TOTAL BUILDING GROSS AREA	**167036 SF**

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 30" x 42"

MITHUN

SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
GROSS BUILDING CALCULATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A1.07
ZONING COMPLIANCE RESUBMITTAL

2/22/2019 2:31:47 PM

LANDSCAPE AREA CALCULATIONS
5 SF
7 SF
10 SF
12 SF
12 SF
12 SF
42 SF
43 SF
44 SF
44 SF
44 SF
44 SF
47 SF
47 SF
47 SF
47 SF
47 SF
47 SF
47 SF
47 SF

LANDSCAPE AREA CALCULATIONS
47 SF
49 SF
49 SF
49 SF
53 SF
58 SF
59 SF
59 SF
66 SF
68 SF
107 SF
123 SF
123 SF
123 SF
130 SF
139 SF
139 SF
140 SF
140 SF
149 SF

LANDSCAPE AREA CALCULATIONS
153 SF
153 SF
153 SF
155 SF
167 SF
172 SF
172 SF
172 SF
172 SF
172 SF
172 SF
172 SF
172 SF
173 SF
178 SF
181 SF
182 SF
188 SF
190 SF
191 SF

LANDSCAPE AREA CALCULATIONS
216 SF
221 SF
222 SF
222 SF
222 SF
222 SF
227 SF
235 SF
247 SF
247 SF
247 SF
247 SF
254 SF
254 SF
265 SF
265 SF
265 SF
265 SF
265 SF
265 SF

LANDSCAPE AREA CALCULATIONS
275 SF
275 SF
275 SF
276 SF
276 SF
283 SF
287 SF
301 SF
301 SF
306 SF
306 SF
309 SF
309 SF
310 SF
316 SF
316 SF
320 SF
320 SF
325 SF
343 SF

LANDSCAPE AREA CALCULATIONS
349 SF
378 SF
395 SF
412 SF
413 SF
424 SF
436 SF
436 SF
437 SF
442 SF
452 SF
465 SF
471 SF
471 SF
481 SF
490 SF
504 SF
504 SF
527 SF
542 SF

LANDSCAPE AREA CALCULATIONS
551 SF
591 SF
653 SF
663 SF
708 SF
725 SF
733 SF
754 SF
826 SF
1056 SF
1134 SF
1219 SF
1222 SF
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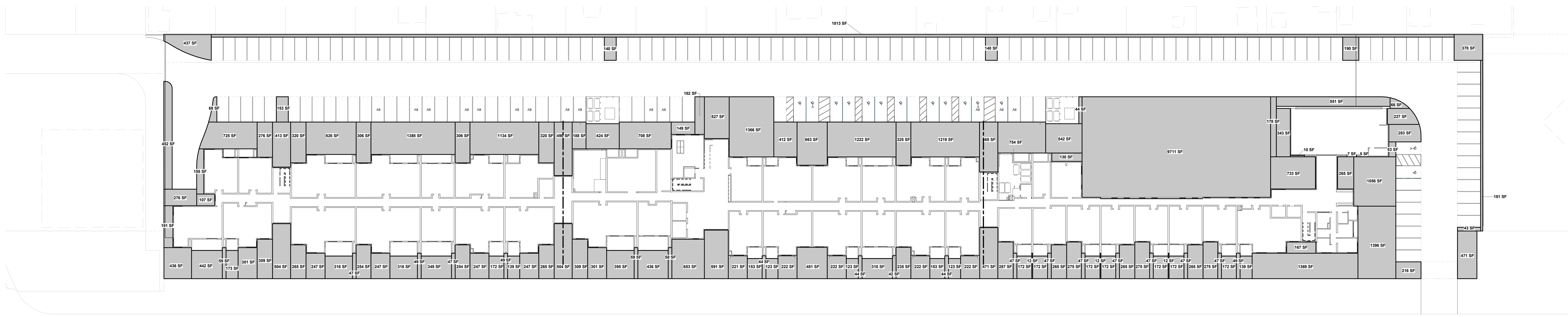
1396 SF
1813 SF
9711 SF
53815 SF



2 LEVEL 01 LANDSCAPE AREA CALCULATIONS
1/32" = 1'-0"

BLDG COVERAGE CALCULATIONS
2 SF
2 SF
2 SF
2 SF
2 SF
2 SF
4 SF
4 SF
4 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF

BLDG COVERAGE CALCULATIONS
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
16 SF
17 SF
30 SF
46 SF
67 SF
68 SF
69 SF
69 SF
69 SF
69 SF

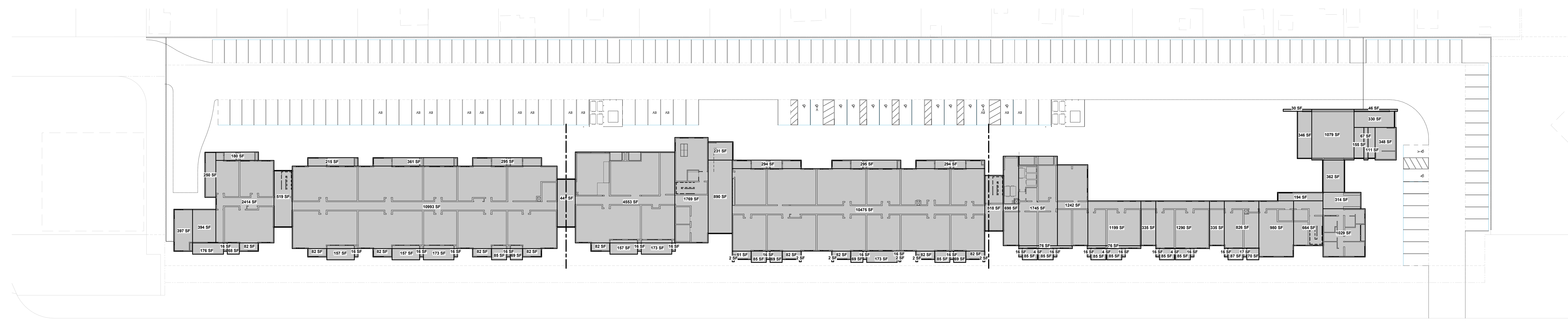
BLDG COVERAGE CALCULATIONS
70 SF
76 SF
76 SF
81 SF
82 SF
82 SF
82 SF
82 SF
82 SF
82 SF
82 SF
82 SF
82 SF
82 SF
85 SF
85 SF
85 SF
85 SF

BLDG COVERAGE CALCULATIONS
85 SF
85 SF
85 SF
85 SF
85 SF
87 SF
111 SF
155 SF
157 SF
157 SF
157 SF
173 SF
173 SF
173 SF
176 SF
180 SF
194 SF
215 SF

BLDG COVERAGE CALCULATIONS
231 SF
250 SF
294 SF
294 SF
295 SF
295 SF
314 SF
330 SF
335 SF
335 SF
346 SF
348 SF
361 SF
362 SF
394 SF
397 SF
441 SF
518 SF

BLDG COVERAGE CALCULATIONS
519 SF
664 SF
698 SF
826 SF
890 SF
980 SF
1029 SF
1079 SF
1199 SF
1242 SF
1290 SF
1745 SF
1769 SF
2414 SF
4553 SF
10475 SF
10993 SF
53313 SF

PROPERTY AREA: 164,000 SF
PROPOSED BUILDING COVERAGE: 53,313 SF
PERCENT BUILDING COVERAGE: 32.5%



1 LEVEL 01 GROSS BUILDING COVERAGE CALCULATIONS
1/32" = 1'-0"

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Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
GROSS BLDG COVERAGE & LANDSCAPE AREA CALCULATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

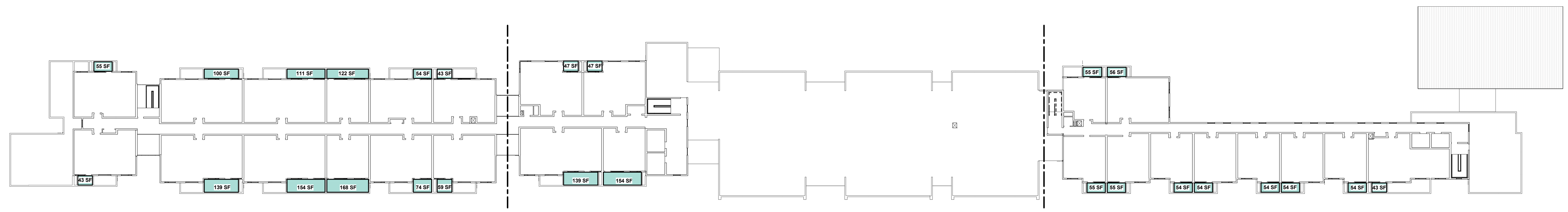
SHEET NUMBER
A1.08
ZONING COMPLIANCE RESUBMITTAL

NOT FOR CONSTRUCTION

2/22/2019 2:31:58 PM

LEVEL 04 PRIVATE OPEN SPACE

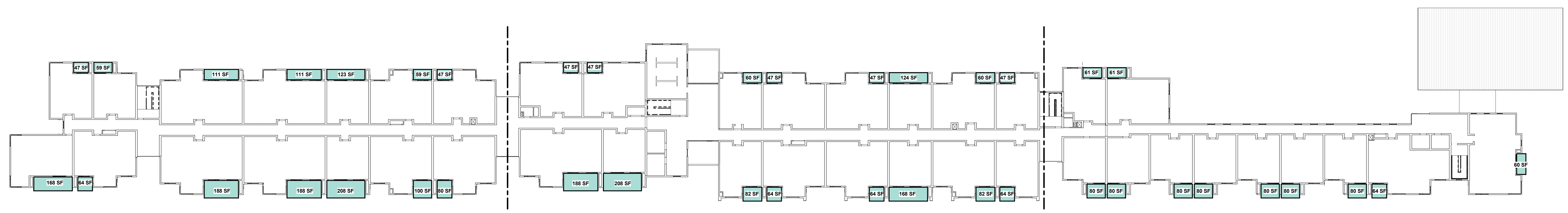
43 SF	55 SF
43 SF	56 SF
43 SF	59 SF
47 SF	74 SF
47 SF	100 SF
54 SF	111 SF
54 SF	122 SF
54 SF	139 SF
54 SF	139 SF
54 SF	154 SF
54 SF	154 SF
55 SF	168 SF
55 SF	**2039 SF**
55 SF	



4 LEVEL 04 OPEN SPACE
1/32" = 1'-0"

LEVEL 03 PRIVATE OPEN SPACE

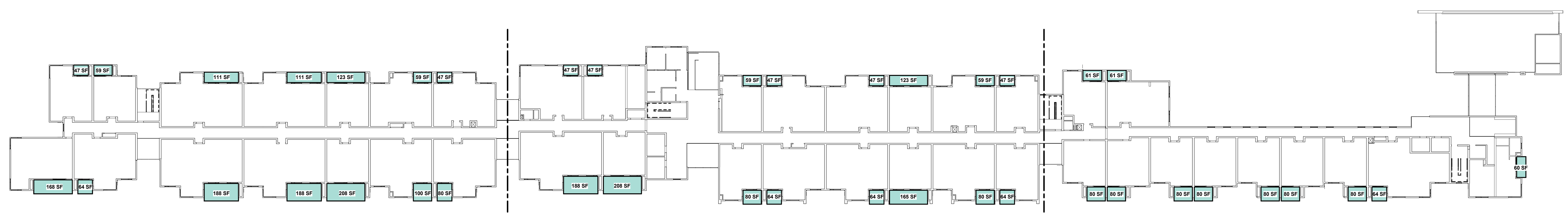
47 SF	64 SF	82 SF
47 SF	64 SF	100 SF
47 SF	64 SF	111 SF
47 SF	64 SF	111 SF
47 SF	64 SF	123 SF
47 SF	80 SF	124 SF
47 SF	80 SF	168 SF
59 SF	80 SF	188 SF
59 SF	80 SF	188 SF
60 SF	80 SF	188 SF
60 SF	80 SF	208 SF
60 SF	80 SF	208 SF
61 SF	80 SF	**3760 SF**
61 SF	82 SF	



3 LEVEL 03 OPEN SPACE
1/32" = 1'-0"

LEVEL 02 PRIVATE OPEN SPACE

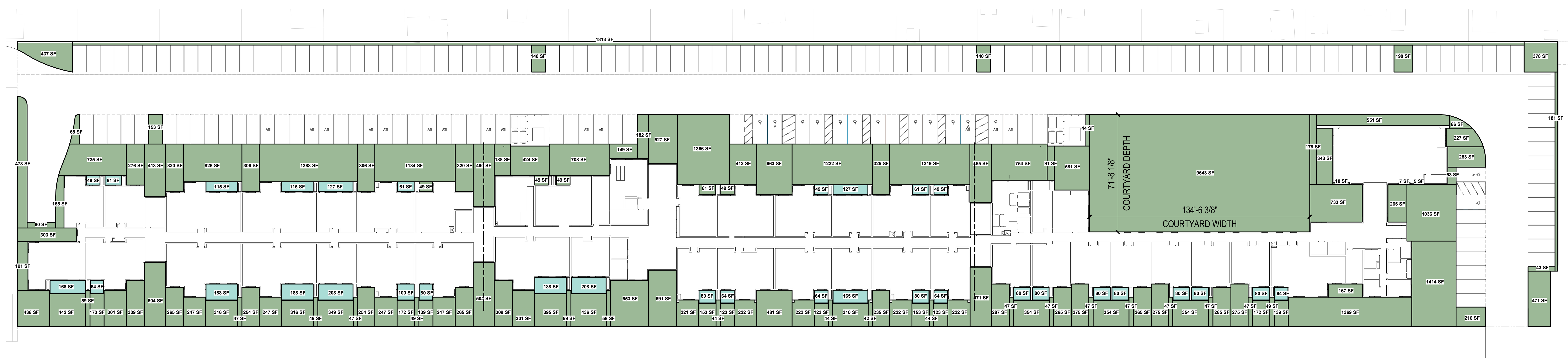
47 SF	64 SF	80 SF
47 SF	64 SF	100 SF
47 SF	64 SF	111 SF
47 SF	64 SF	111 SF
47 SF	64 SF	123 SF
47 SF	80 SF	123 SF
47 SF	80 SF	165 SF
59 SF	80 SF	168 SF
59 SF	80 SF	168 SF
59 SF	80 SF	188 SF
59 SF	80 SF	188 SF
60 SF	80 SF	188 SF
61 SF	80 SF	208 SF
61 SF	80 SF	208 SF
		3750 SF



2 LEVEL 02 OPEN SPACE
1/32" = 1'-0"

LEVEL 01 PRIVATE OPEN SPACE

49 SF	80 SF	127 SF
49 SF	80 SF	127 SF
49 SF	80 SF	165 SF
61 SF	80 SF	168 SF
61 SF	80 SF	188 SF
61 SF	80 SF	188 SF
61 SF	80 SF	188 SF
64 SF	80 SF	208 SF
64 SF	80 SF	208 SF
64 SF	80 SF	**3347 SF**
64 SF	100 SF	
64 SF	115 SF	
80 SF	115 SF	



1 LEVEL 01 OPEN SPACE
1/32" = 1'-0"

LEVEL 01 COMMON OPEN SPACE

5 SF	47 SF	68 SF	172 SF	247 SF	283 SF	349 SF	473 SF	1036 SF
7 SF	47 SF	91 SF	173 SF	247 SF	287 SF	354 SF	481 SF	1134 SF
10 SF	49 SF	123 SF	178 SF	247 SF	301 SF	354 SF	490 SF	1219 SF
42 SF	49 SF	123 SF	181 SF	247 SF	301 SF	354 SF	504 SF	1222 SF
43 SF	49 SF	123 SF	182 SF	254 SF	303 SF	378 SF	504 SF	1366 SF
44 SF	49 SF	139 SF	188 SF	254 SF	306 SF	395 SF	527 SF	1369 SF
44 SF	49 SF	139 SF	190 SF	265 SF	306 SF	412 SF	551 SF	1388 SF
44 SF	49 SF	140 SF	191 SF	265 SF	309 SF	413 SF	581 SF	1414 SF
44 SF	49 SF	140 SF	216 SF	265 SF	309 SF	424 SF	591 SF	1813 SF
47 SF	53 SF	149 SF	221 SF	265 SF	310 SF	436 SF	653 SF	9643 SF
47 SF	58 SF	153 SF	222 SF	265 SF	316 SF	436 SF	663 SF	**53999 SF**
47 SF	59 SF	153 SF	222 SF	265 SF	316 SF	437 SF	708 SF	
47 SF	59 SF	153 SF	222 SF	275 SF	320 SF	442 SF	725 SF	
47 SF	60 SF	155 SF	222 SF	275 SF	320 SF	465 SF	733 SF	
47 SF	61 SF	167 SF	227 SF	275 SF	325 SF	471 SF	754 SF	
47 SF	66 SF	172 SF	235 SF	276 SF	343 SF	471 SF	826 SF	

TOTAL OPEN SPACE CALCULATIONS

Level	Area
BUILDING LEVEL 01	57345 SF
BUILDING LEVEL 02	3750 SF
BUILDING LEVEL 03	3760 SF
BUILDING LEVEL 04	2039 SF
TOTAL OPEN SPACE	**66894 SF**

NOTE: ONLY DECKS ARE COUNTED AS PRIVATE OPEN SPACE; ALL OTHER AREAS ARE CONSIDERED COMMON OPEN SPACE.

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Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

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PROJECT MANAGER
KB
PROJECT ARCHITECT
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TITLE
OPEN SPACE CALCULATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
A1.09

ZONING COMPLIANCE RESUBMITTAL

NOT FOR CONSTRUCTION

2/22/2019 2:32:18 PM

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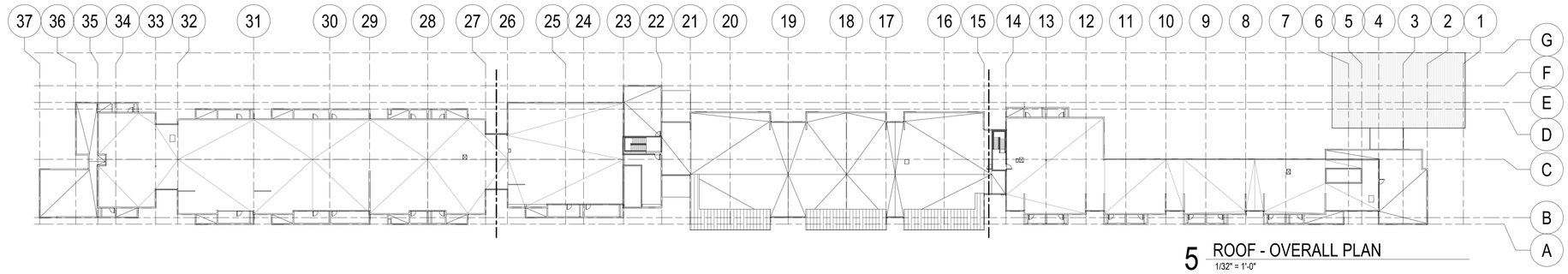
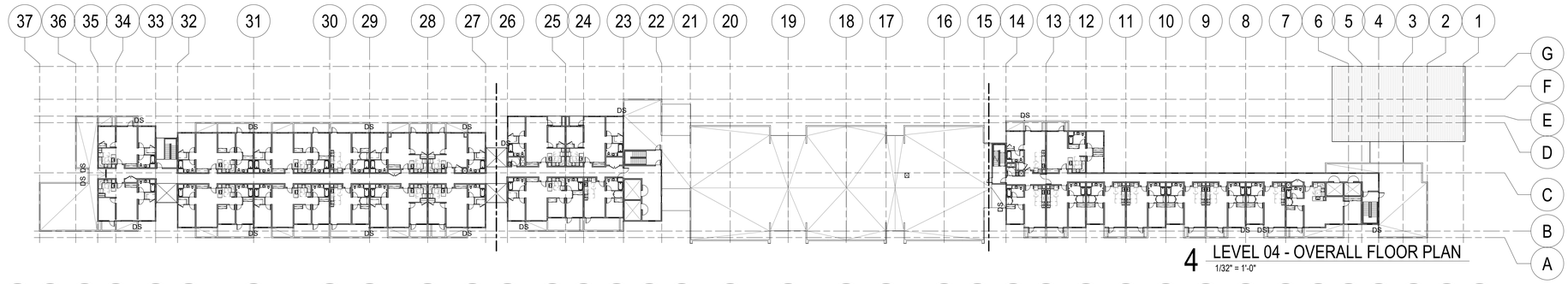
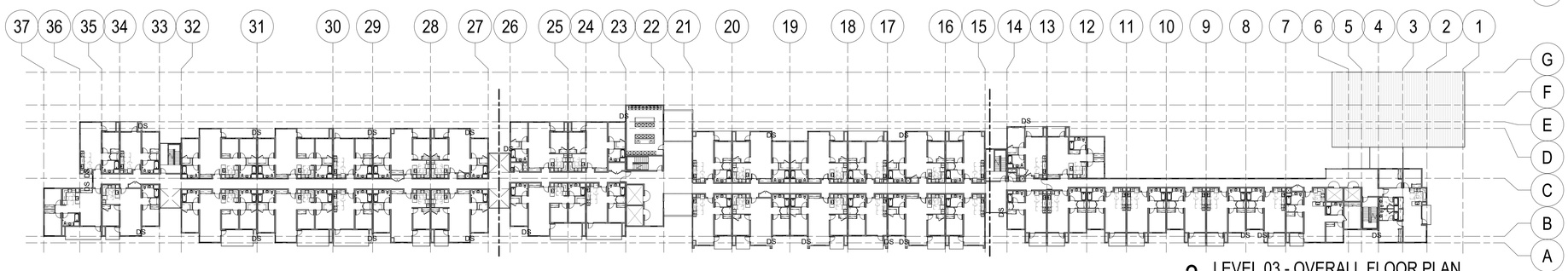


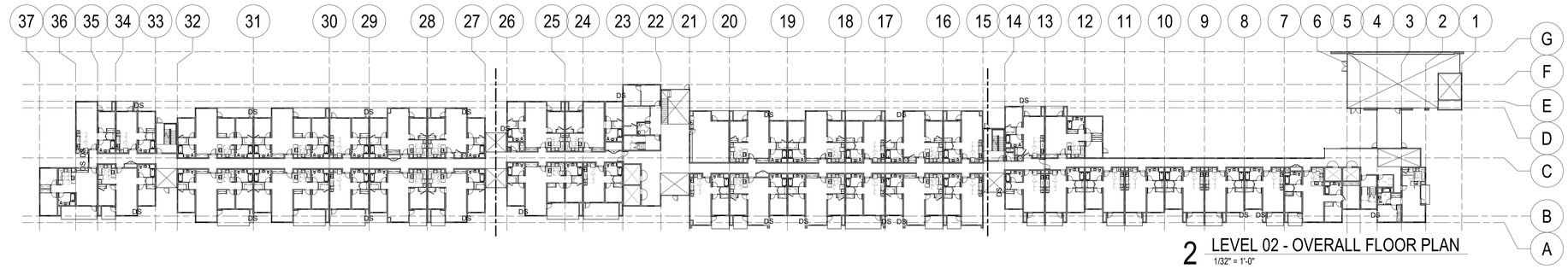
5 ROOF - OVERALL PLAN
1/32" = 1'-0"



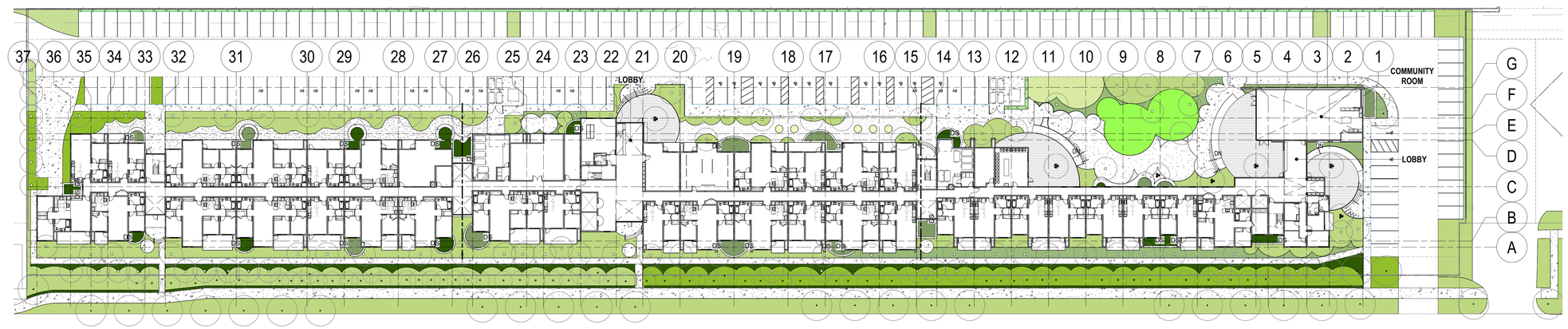
4 LEVEL 04 - OVERALL FLOOR PLAN
1/32" = 1'-0"



3 LEVEL 03 - OVERALL FLOOR PLAN
1/32" = 1'-0"



2 LEVEL 02 - OVERALL FLOOR PLAN
1/32" = 1'-0"



1 LEVEL 01 - OVERALL FLOOR PLAN
1/32" = 1'-0"

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ORIGINAL SHEET SIZE 36" x 42"

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SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
OVERALL FLOOR PLANS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.00
ZONING COMPLIANCE RESUBMITTAL

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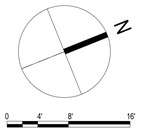
1 LEVEL 01 - FLOOR PLAN - A
1/8" = 1'-0"



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ORIGINAL SHEET SIZE: 36" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
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TITLE
LEVEL 01 - FLOOR PLAN - A

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.01a
ZONING COMPLIANCE RESUBMITTAL

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

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PROJECT ARCHITECT
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PROJECT TEAM MEMBERS
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TITLE
LEVEL 01 - FLOOR PLAN - B

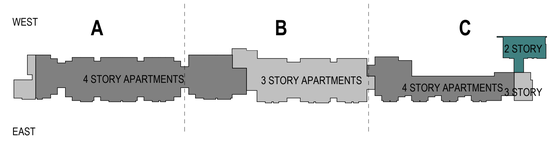
PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

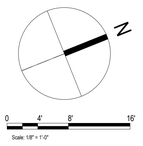
SHEET NUMBER
A2.01b
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

1 LEVEL 01 - FLOOR PLAN - B
1/8" = 1'-0"





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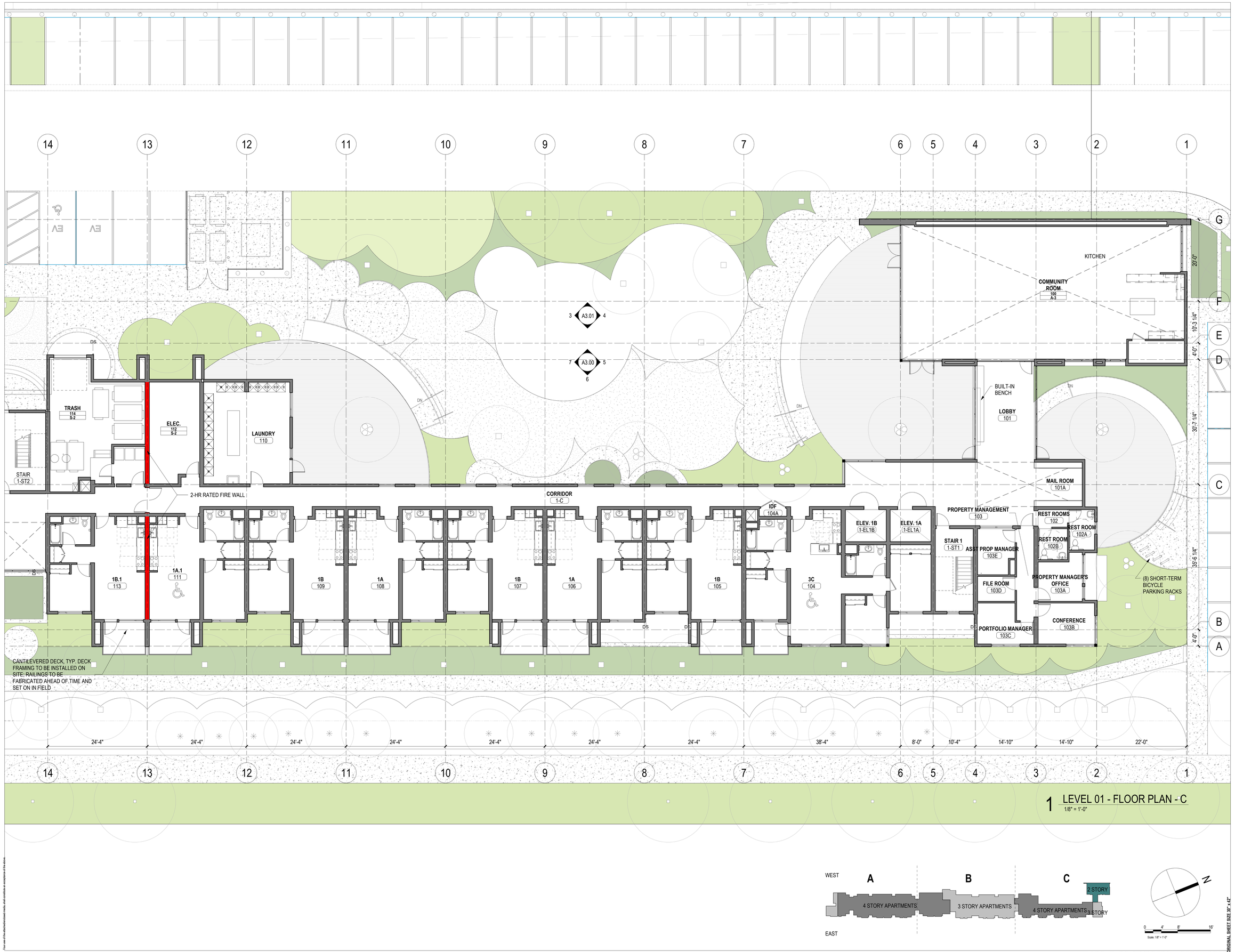

1 LEVEL 01 - FLOOR PLAN - C
1/8" = 1'-0"

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ORIGINAL SHEET SIZE 30" x 42"

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San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
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TITLE
LEVEL 01 - FLOOR PLAN - C

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.01c
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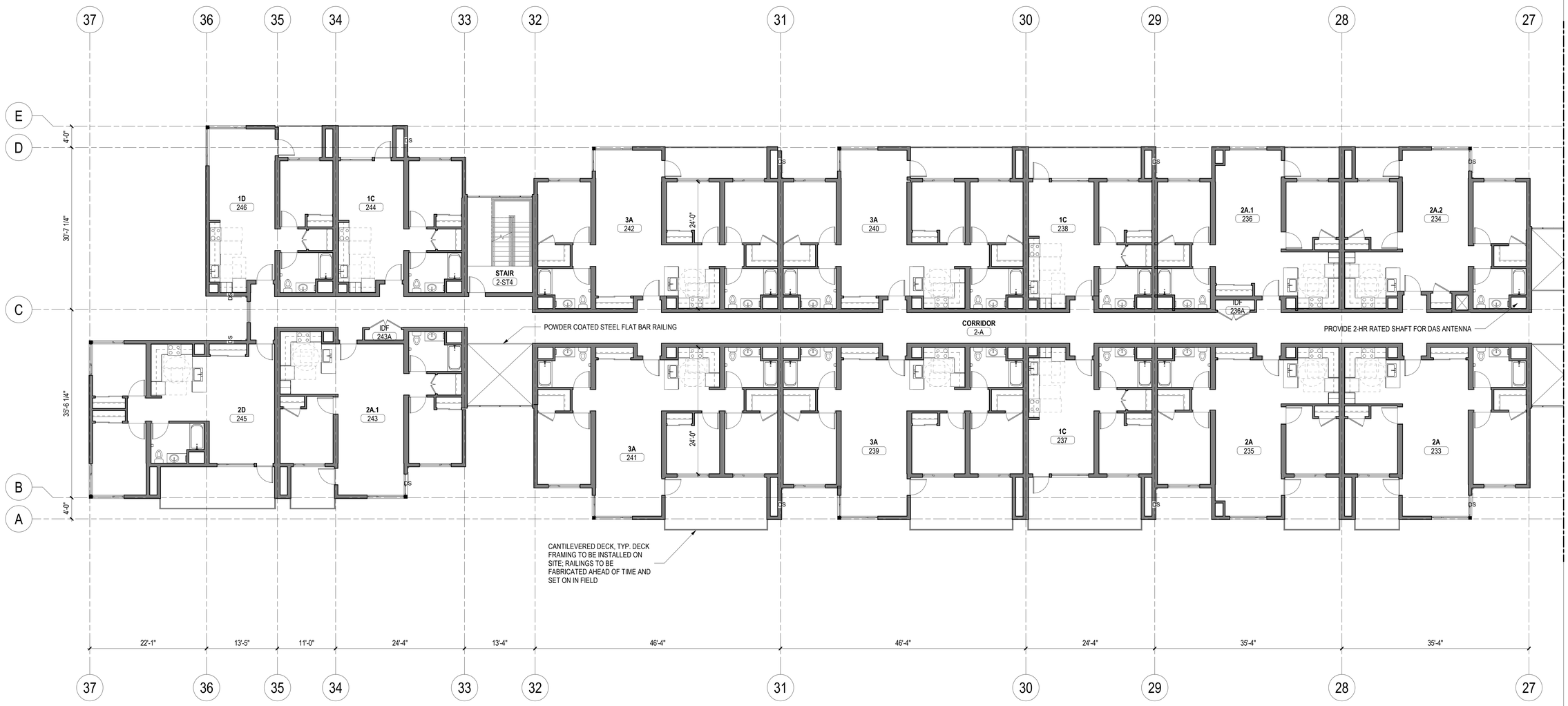
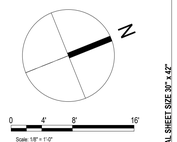


*NOTE: ALL ROOF SLOPES 1/2":12" U.N.O.

1 LEVEL 02 - FLOOR PLAN - A
1/8" = 1'-0"



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ORIGINAL SHEET SIZE 36" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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TITLE
LEVEL 02 - FLOOR PLAN - A

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DATE
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SHEET NUMBER
A2.02a
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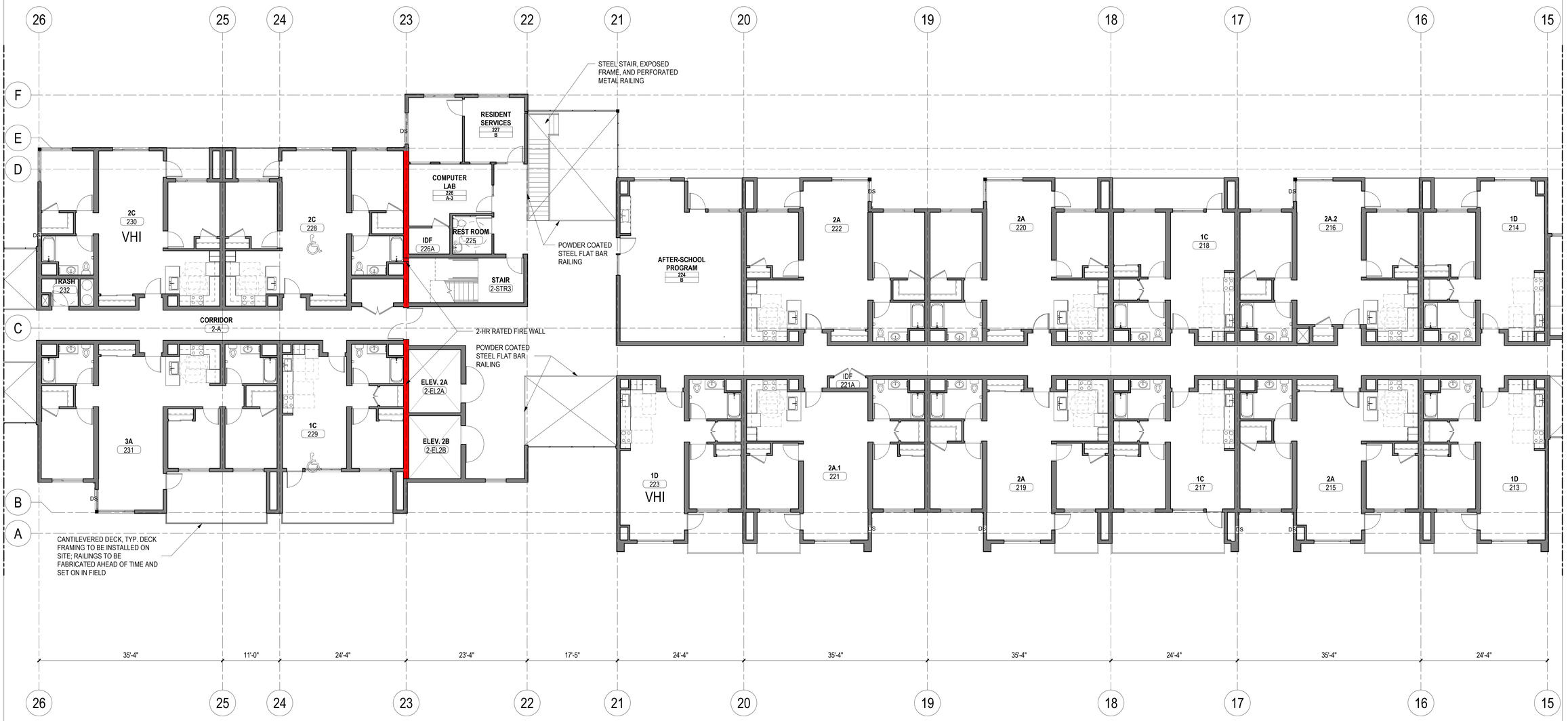
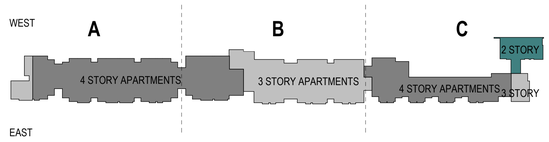
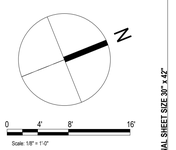


*NOTE: ALL ROOF SLOPES 1/2":12" U.N.O.

1 LEVEL 02 - FLOOR PLAN - B
1/8" = 1'-0"





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ORIGINAL SHEET SIZE: 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
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TITLE
LEVEL 02 - FLOOR PLAN - B

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.02b
ZONING COMPLIANCE RESUBMITTAL

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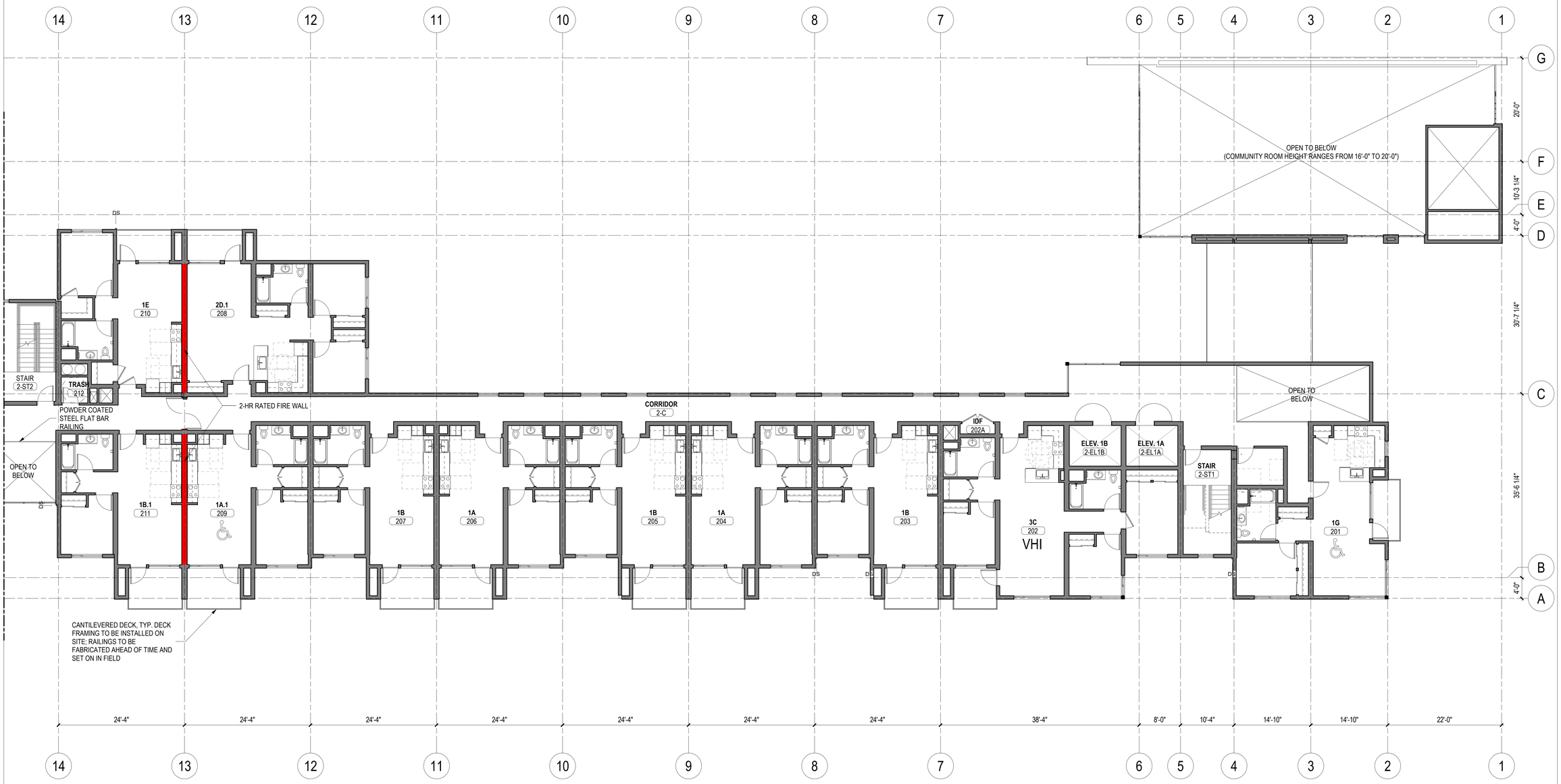

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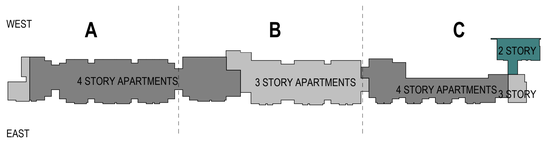
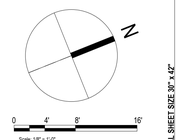
1 LEVEL 02 - FLOOR PLAN - C
1/8" = 1'-0"





ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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PROJECT ARCHITECT
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TITLE
LEVEL 02 - FLOOR PLAN - C

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.02c
ZONING COMPLIANCE RESUBMITTAL

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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MENLO PARK, CA

PREPARED FOR
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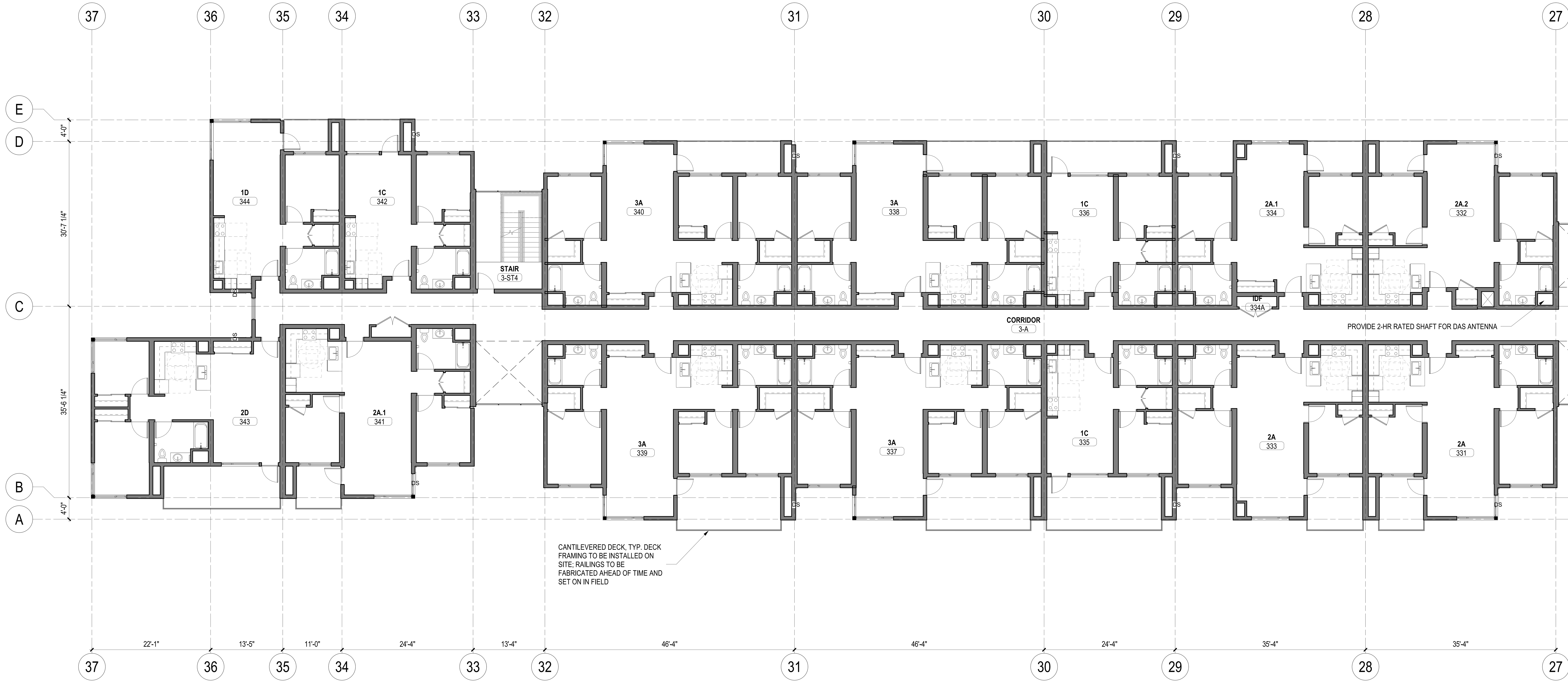

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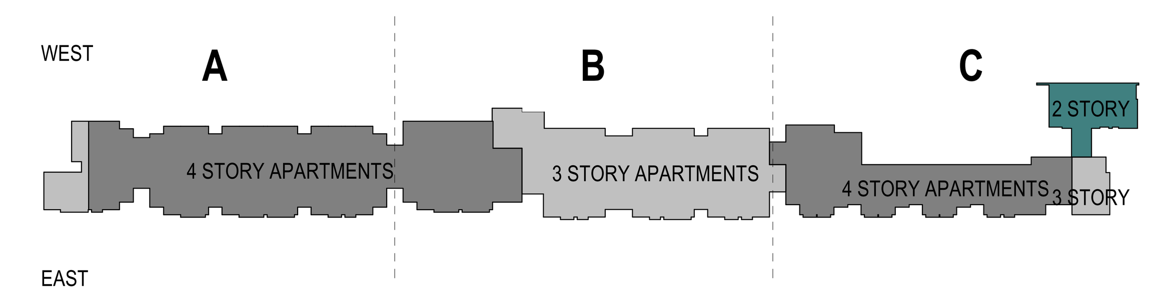
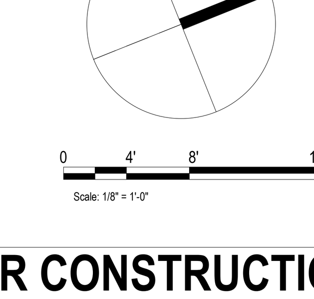
1 LEVEL 03 - FLOOR PLAN - A
1/8" = 1'-0"





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PROJECT DESIGNER

PROJECT TEAM MEMBERS
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TITLE
LEVEL 03 - FLOOR PLAN - A

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.03a

ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

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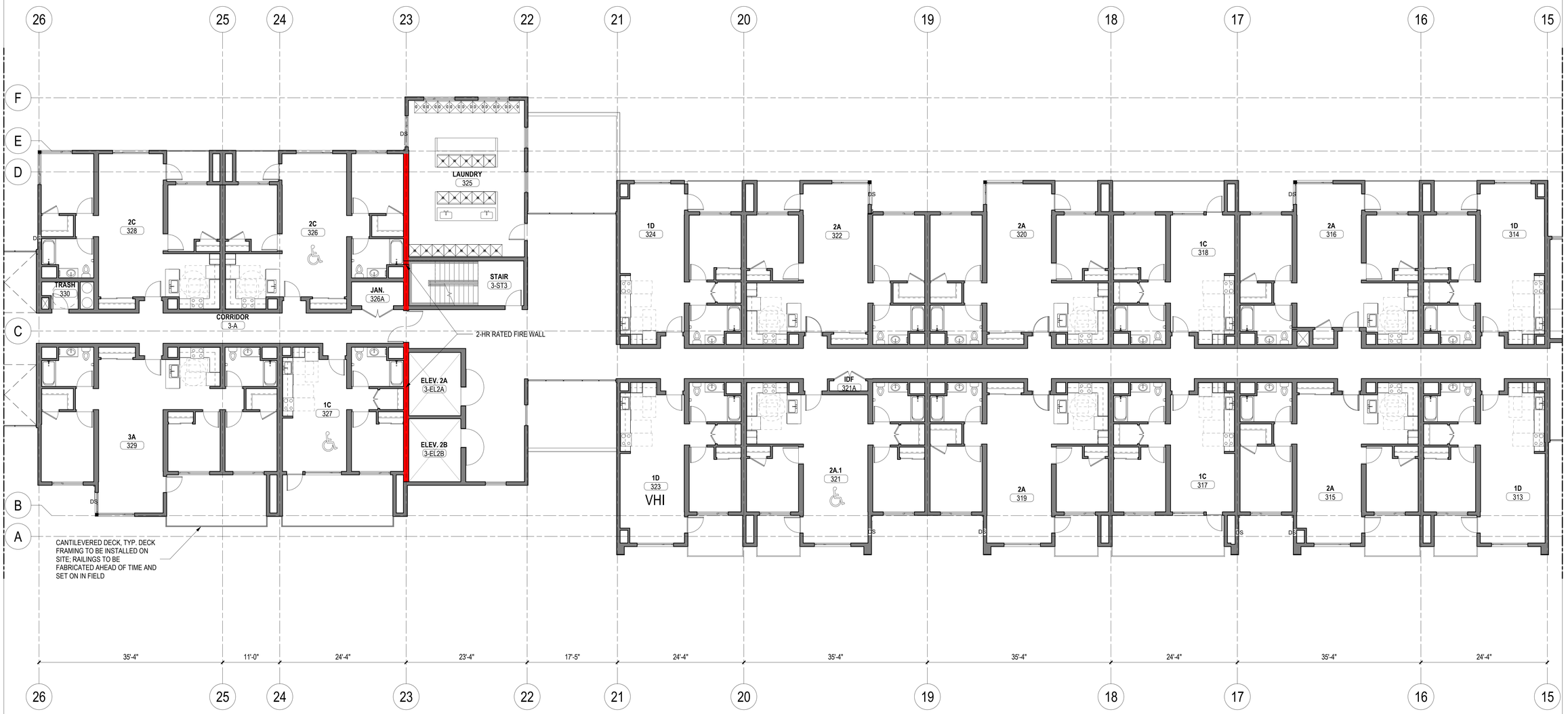
PROJECT
GATEWAY FAMILY HOUSING

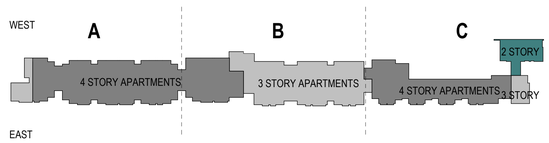
LOCATION
1345 WILLOW ROAD MENLO PARK, CA

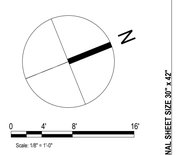
PREPARED FOR
MIDPEN HOUSING



*NOTE: ALL ROOF SLOPES 1/2":12" U.N.O.

1 LEVEL 03 - FLOOR PLAN - B
1/8" = 1'-0"





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TITLE
LEVEL 03 - FLOOR PLAN - B

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.03b
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

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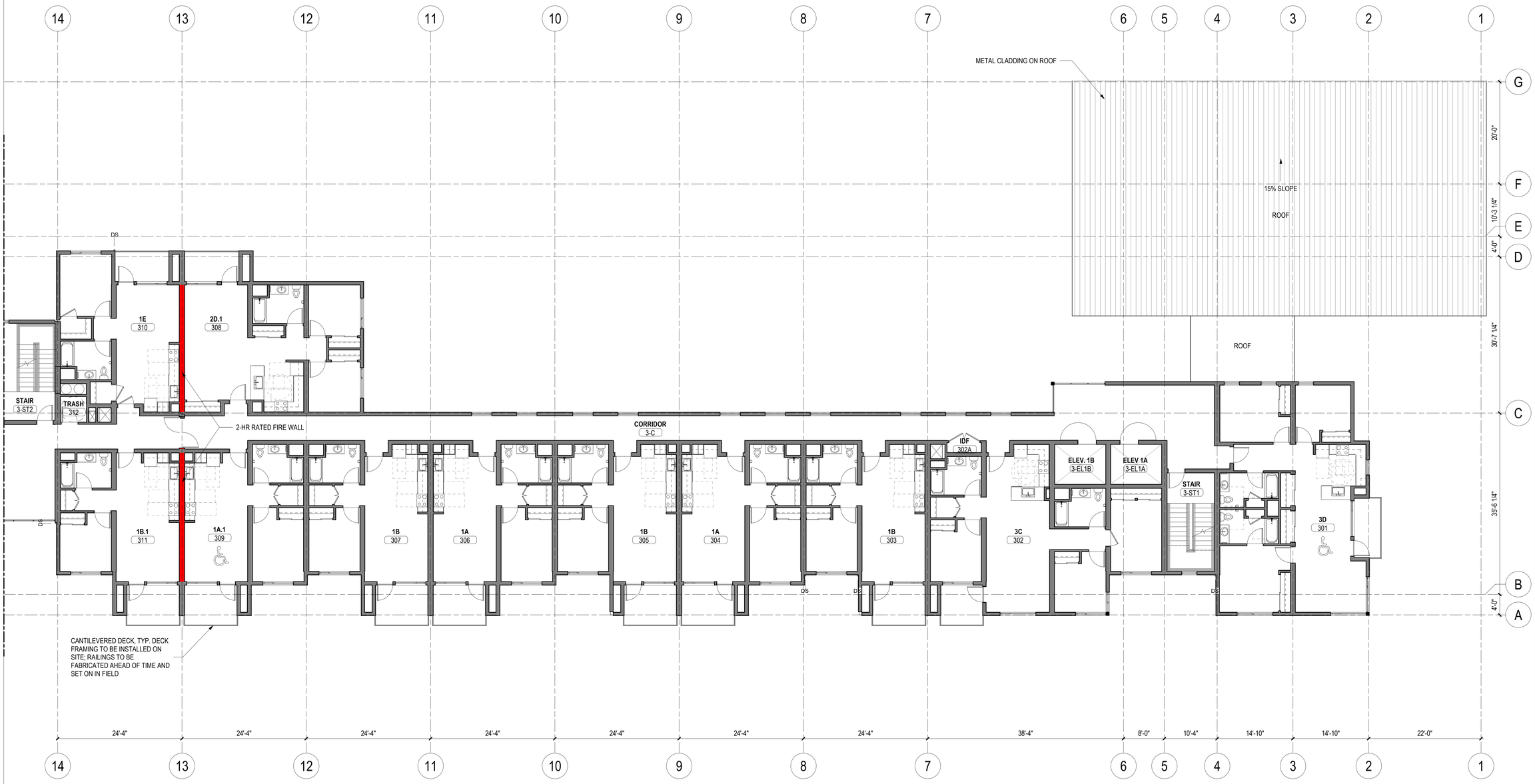

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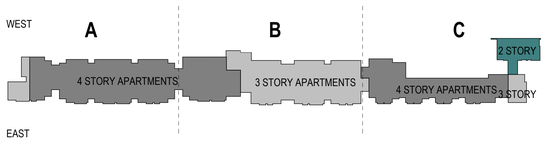

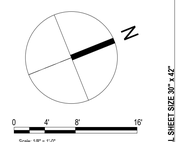

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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PROJECT NO.
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A2.03c
ZONING COMPLIANCE RESUBMITTAL

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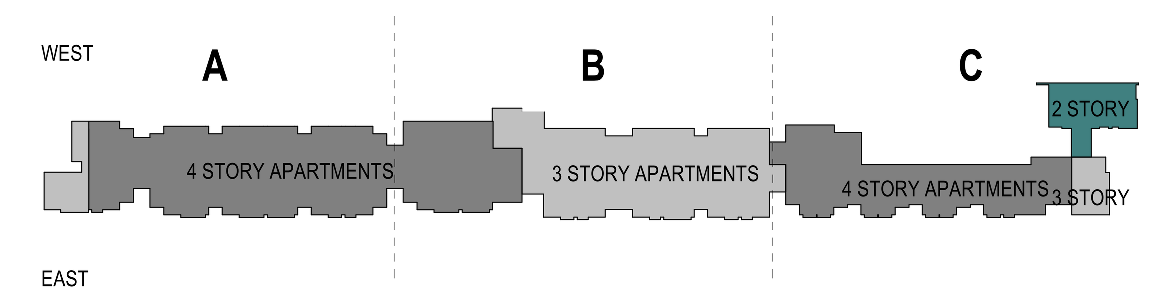

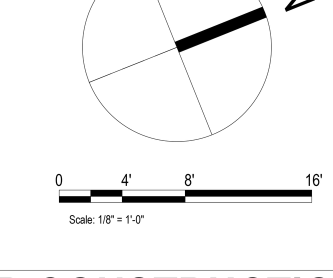

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LEVEL 04 - FLOOR PLAN - A

PROJECT NO.
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ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
A2.04a
ZONING COMPLIANCE RESUBMITTAL

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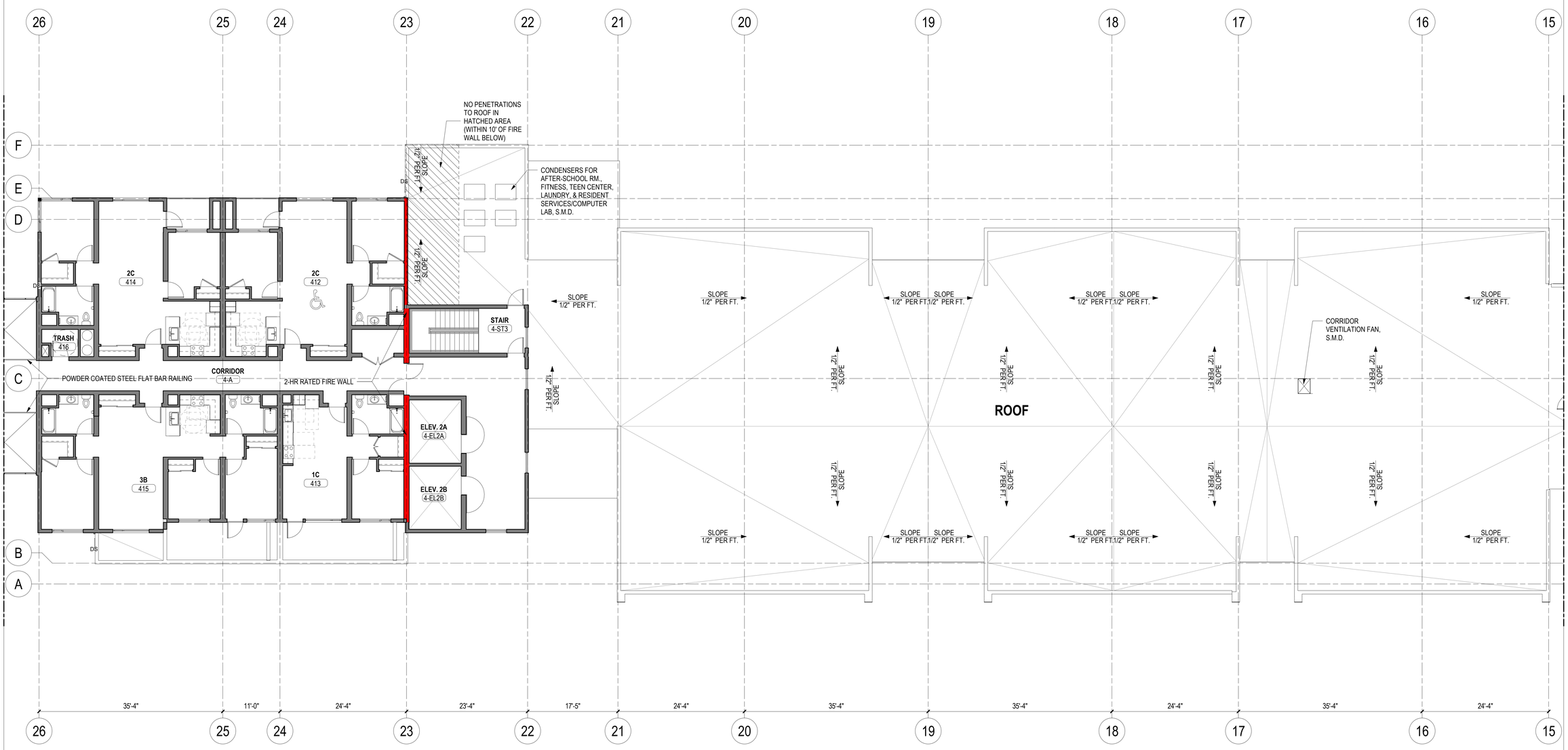

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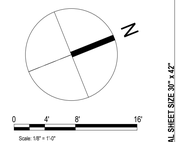

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LOCATION
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TITLE
LEVEL 04 - FLOOR PLAN - B

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.04b
ZONING COMPLIANCE RESUBMITTAL-

ORIGINAL SHEET SIZE 30" x 42"

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14 13 12 11 10 9 8 7 6 5 4 3 2 1

G F E D C B A

20'-0" 10'-3 1/4" 4'-0" 30'-7 1/4" 35'-6 1/4" 4'-0"

DS

1F 410 | 2D.1 408 | 1A.1 407 | 1B.1 409 | 1B 406 | 1A 405 | 1B 404 | 1A 403 | 1B 402 | 2E 401 VHI

STAIR 4-ST2 | TRASH 411 | CORRIDOR 4-B | CORRIDOR 4-C | STAIR 4-ST1 | ELEV. 1B 4-EL1B | ELEV. 1A 4-EL1A

2-HR RATED FIRE WALL

ROOF

SLOPE 1/2" PER FT.

CONDENSER FOR OFFICES, S.M.D.

24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 38'-4" 8'-0" 10'-4" 14'-10" 14'-10" 22'-0"

*NOTE: ALL ROOF SLOPES 1/2":12" U.N.O.

1 LEVEL 04 - FLOOR PLAN - C
1/8" = 1'-0"

WEST A 4 STORY APARTMENTS | B 3 STORY APARTMENTS | C 4 STORY APARTMENTS, 2 STORY, 3 STORY EAST

0 4' 8' 16'
Scale: 1/8" = 1'-0"

ORIGINAL SHEET SIZE 36" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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MENLO PARK, CA

PREPARED FOR
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NO. DATE REVISION

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TITLE
LEVEL 04 - FLOOR PLAN - C

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.04c
ZONING COMPLIANCE RESUBMITTAL

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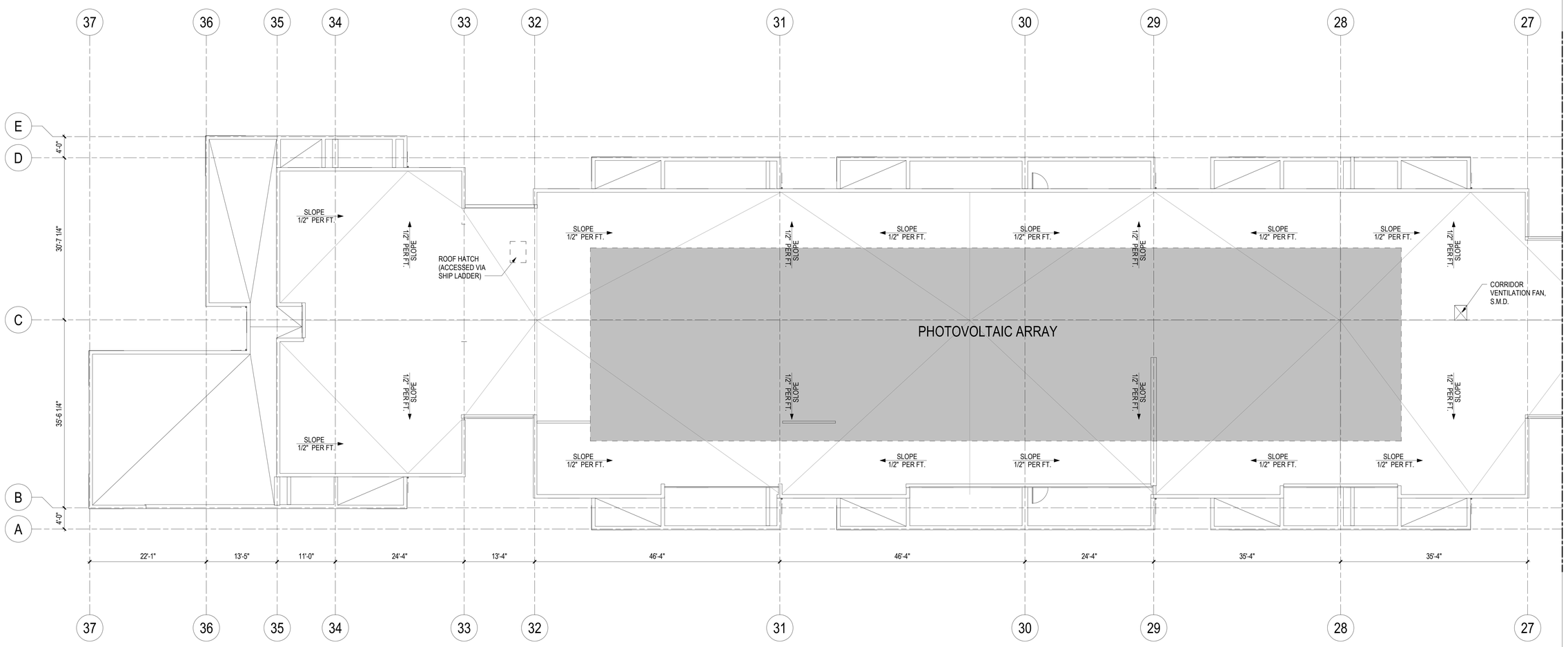

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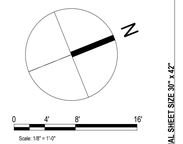

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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PREPARED FOR
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TITLE
ROOF PLAN - A

PROJECT NO
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.05a
ZONING COMPLIANCE RESUBMITTAL2

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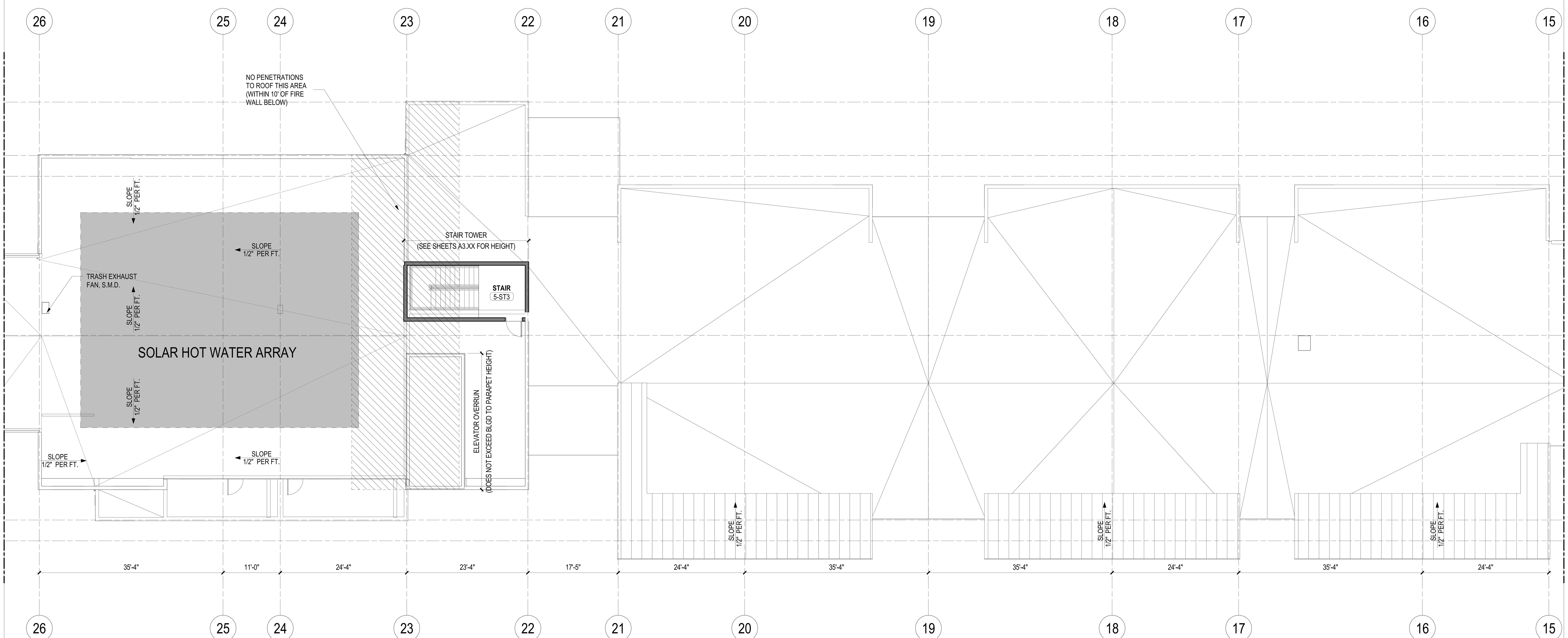

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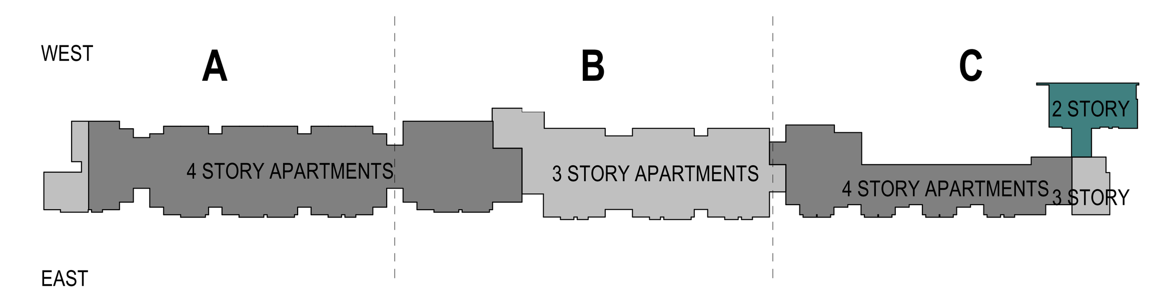

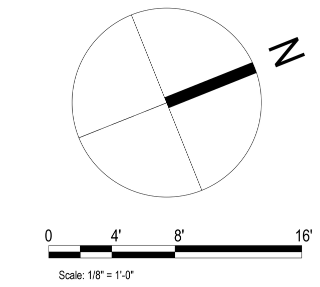

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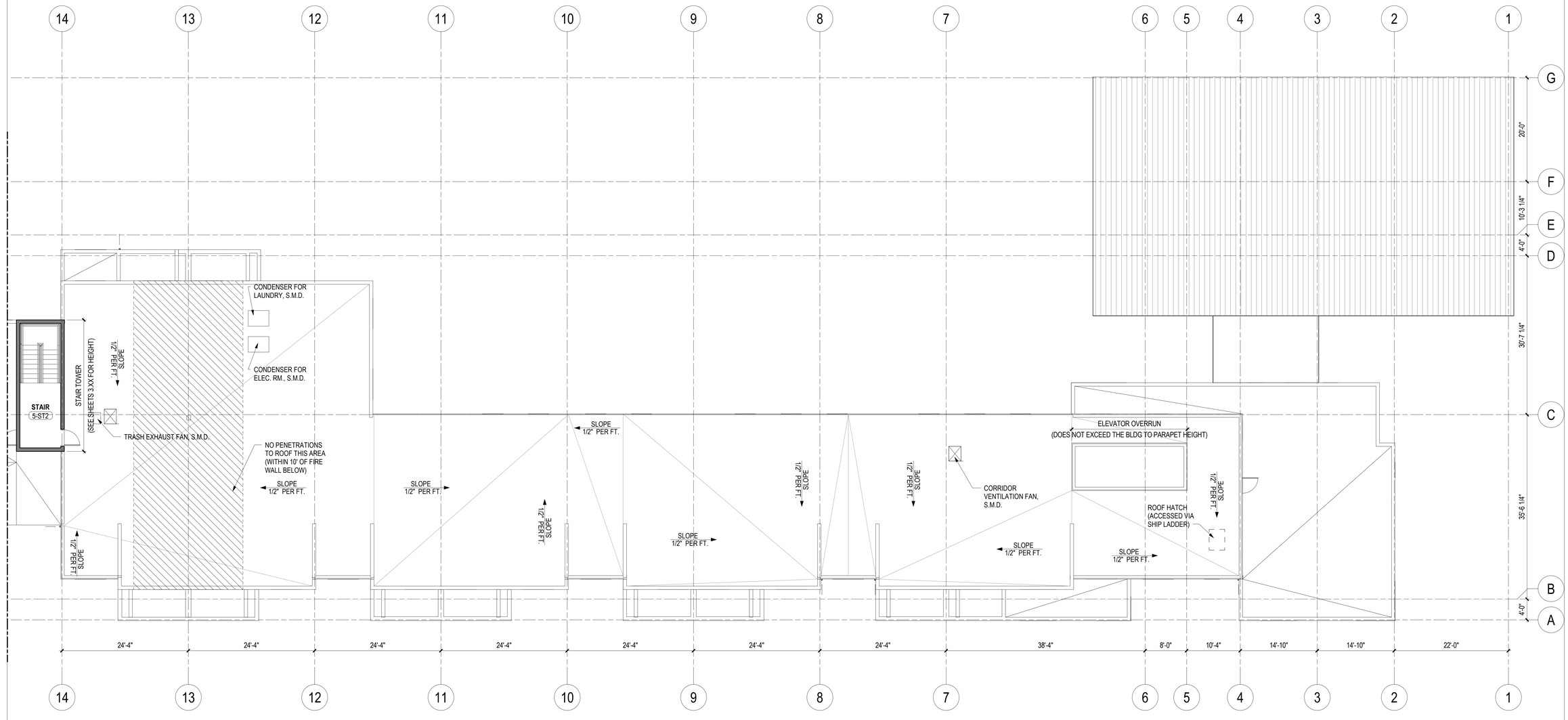

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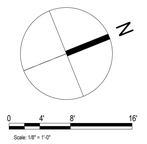

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Seattle, WA 98101 / 206.623.3344
SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688
mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
ROOF PLAN - C

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A2.05c
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

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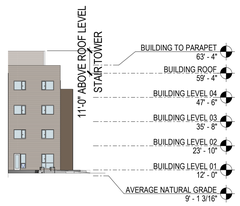
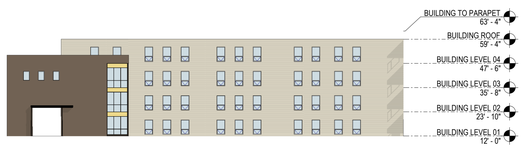
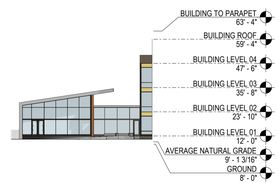


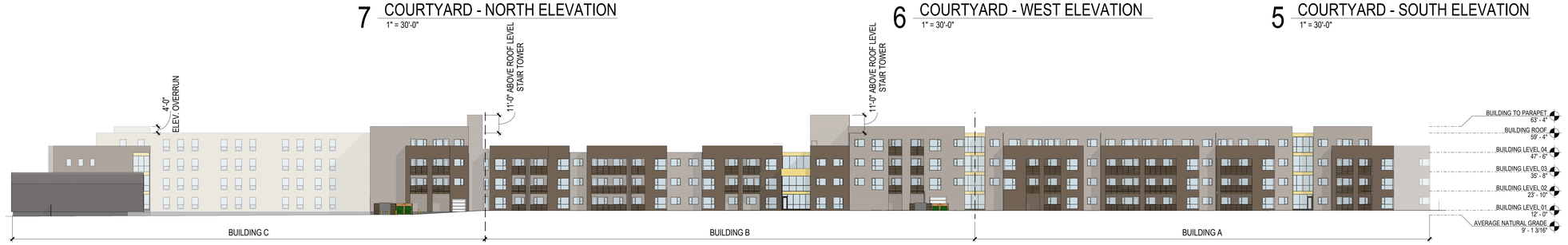
7 COURTYARD - NORTH ELEVATION
1" = 30'-0"



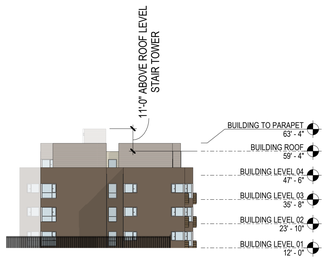
6 COURTYARD - WEST ELEVATION
1" = 30'-0"



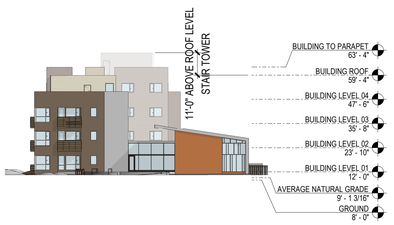
5 COURTYARD - SOUTH ELEVATION
1" = 30'-0"



4 WEST ELEVATION
1" = 30'-0"



3 EAST ELEVATION
1" = 30'-0"



2 SOUTH ELEVATION
1" = 30'-0"

1 NORTH ELEVATION
1" = 30'-0"

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
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AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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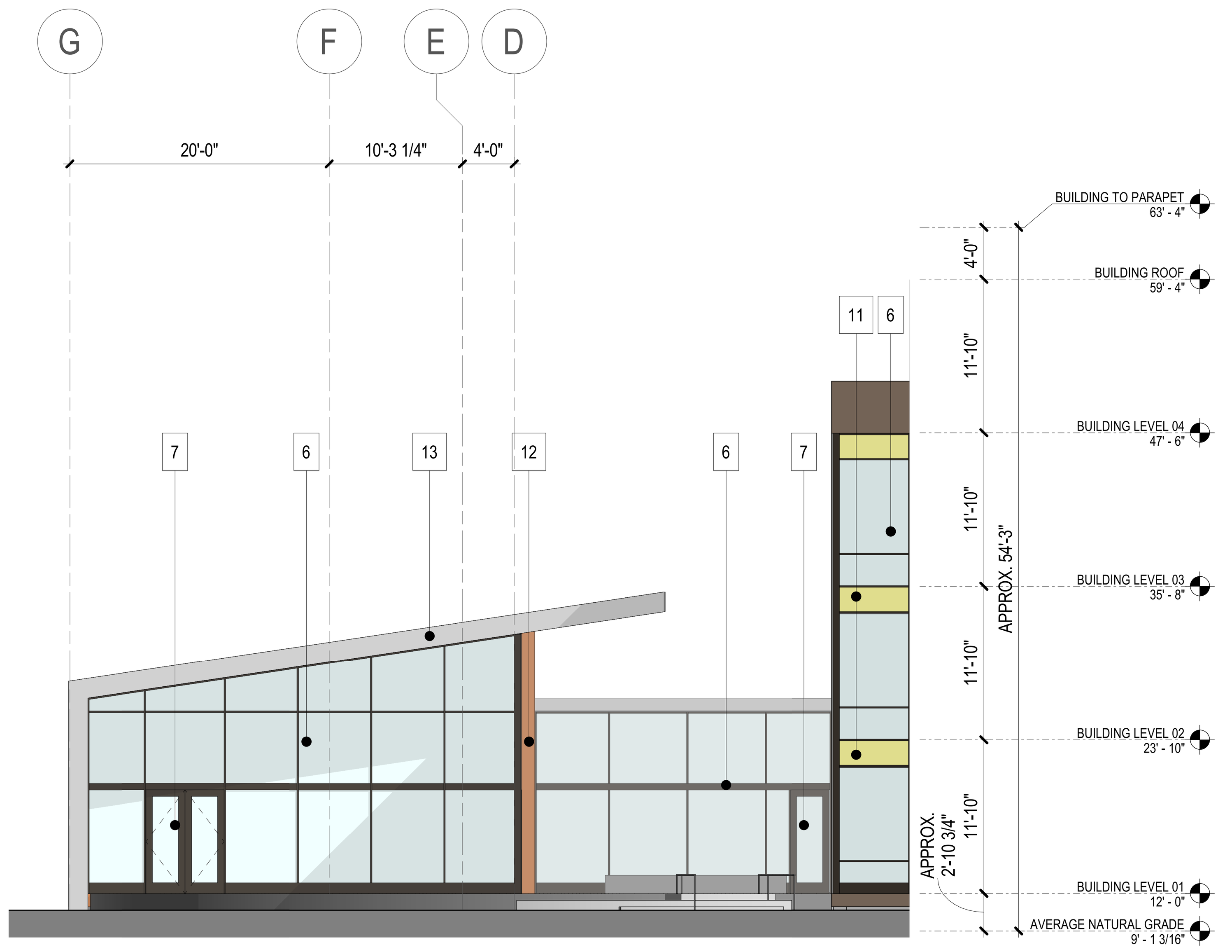
TITLE
OVERALL BUILDING ELEVATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

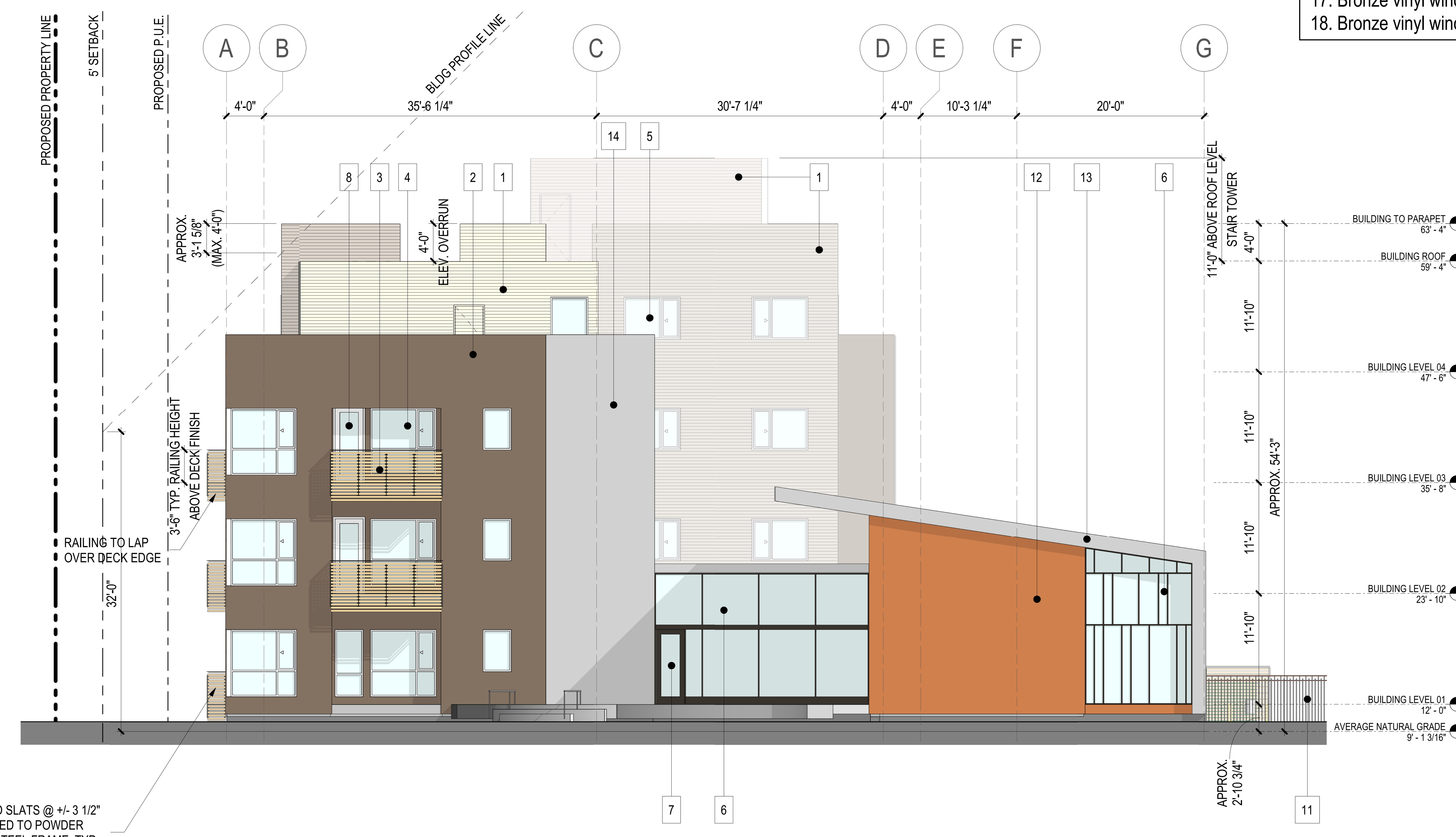
SHEET NUMBER
A3.00
ZONING COMPLIANCE RESUBMITTAL

MATERIAL LEGEND:

1. Fiber Cement Lap Siding, 6" reveal, alternating
2. Fiber Cement panel
3. Open wood slat screen / deck railing
4. White vinyl window in 2" recess w/ 10" sill, typ.
5. White vinyl window in 2" recess w/ 42" sill, typ.
6. Storefront System
7. Storefront Door
8. Fiberglass patio door
9. Metal roll-up door
10. Ptd. Aluminum Panel
11. 7'-0" steel picket security fence
12. Laminated Wood-Print Panel
13. Ptd. Metal Fascia w/ Mtl. Roofing
14. Painted Mural; T.B.D.
15. Metal Cladding
16. Metal Railings
17. Bronze vinyl window in 2" recess w/ 10" sill
18. Bronze vinyl window in 2" recess w/ 42" sill

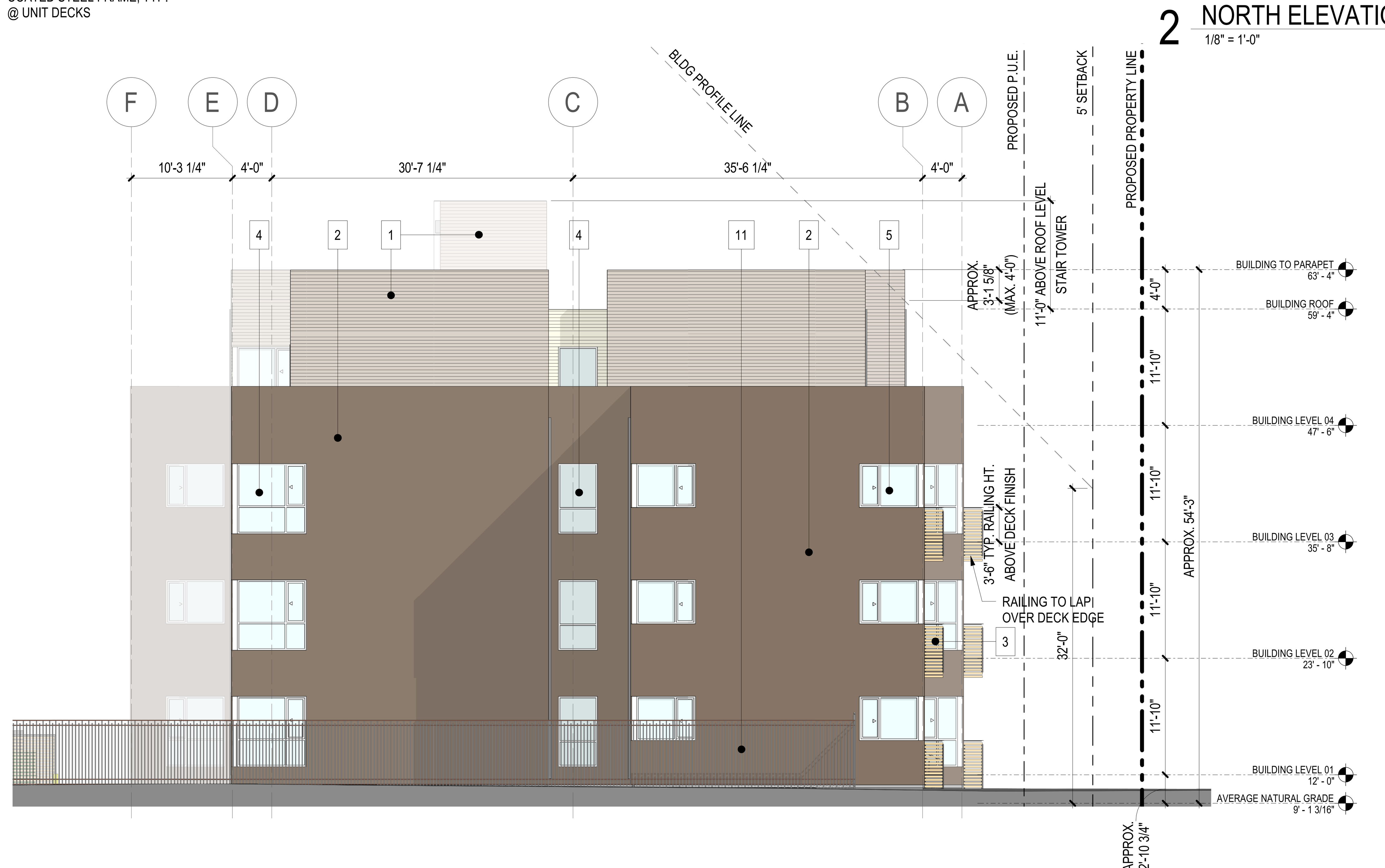


4 COURTYARD - SOUTH ELEVATION
1/8" = 1'-0"



2 NORTH ELEVATION
1/8" = 1'-0"

3 COURTYARD - NORTH ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
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TITLE
BUILDING ELEVATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
A3.01
ZONING COMPLIANCE RESUBMITTAL

NOT FOR CONSTRUCTION

2/22/2019 2:34:35 PM

2/22/2019 2:36:03 PM

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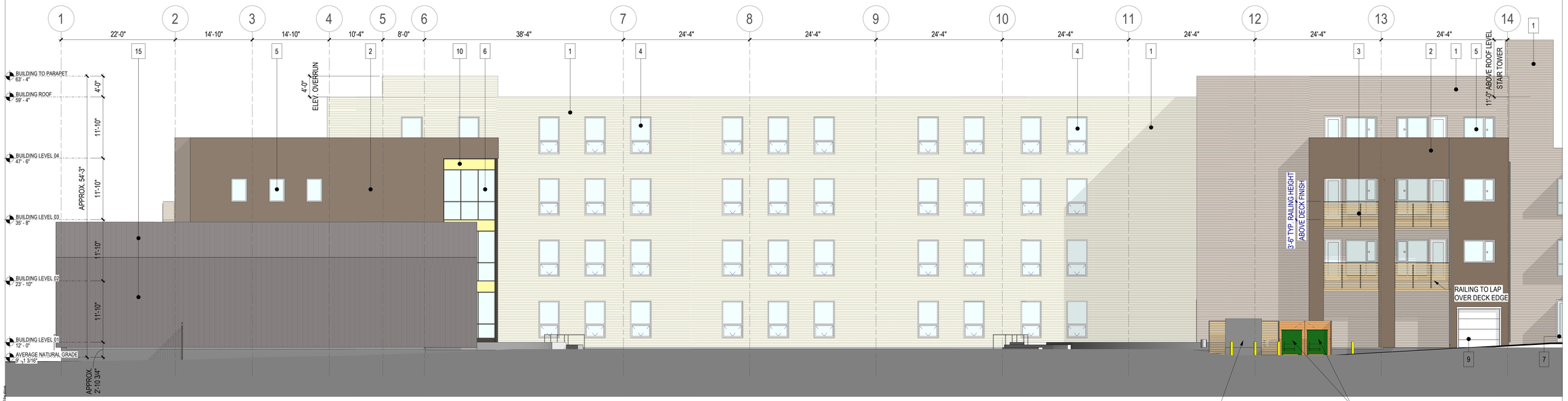
MATERIAL LEGEND:

1. Fiber Cement Lap Siding, 6" reveal, alternating
2. Fiber Cement panel
3. Open wood slat screen / deck railing
4. White vinyl window in 2" recess w/ 10" sill, typ.
5. White vinyl window in 2" recess w/ 42" sill, typ.
6. Storefront System
7. Storefront Door
8. Fiberglass patio door
9. Metal roll-up door
10. Ptd. Aluminum Panel
11. 7'-0" steel picket security fence
12. Laminated Wood-Print Panel
13. Ptd. Metal Fascia w/ Mtl. Roofing
14. Painted Mural; T.B.D.
15. Metal Cladding
16. Metal Railings
17. Bronze vinyl window in 2" recess w/ 10" sill
18. Bronze vinyl window in 2" recess w/ 42" sill

2 EAST ELEVATION - SECTION A

1/8" = 1'-0"



1 WEST ELEVATION - SECTION C

1/8" = 1'-0"

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE: 36" x 42"

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Seattle, WA 98101 / 206.623.3344

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San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

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PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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TITLE
BUILDING ELEVATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A3.02a
ZONING COMPLIANCE RESUBMITTAL

2/22/2019 2:37:22 PM

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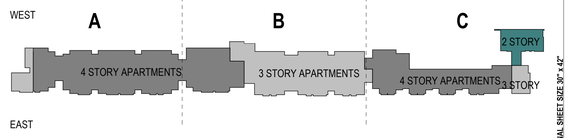
12. Laminated Wood-Print Panel
13. Ptd. Metal Fascia w/ Mtl. Roofing
14. Painted Mural; T.B.D.
15. Metal Cladding
16. Metal Railings
17. Bronze vinyl window in 2" recess w/ 10" sill
18. Bronze vinyl window in 2" recess w/ 42" sill

1 EAST ELEVATION - SECTION B

1/8" = 1'-0"

2 WEST ELEVATION - SECTION B

1/8" = 1'-0"



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ORIGINAL SHEET SIZE: 36" x 42"

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Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

1

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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TITLE
BUILDING ELEVATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A3.02b

ZONING COMPLIANCE RESUBMITTAL

2/22/2019 2:38:43 PM

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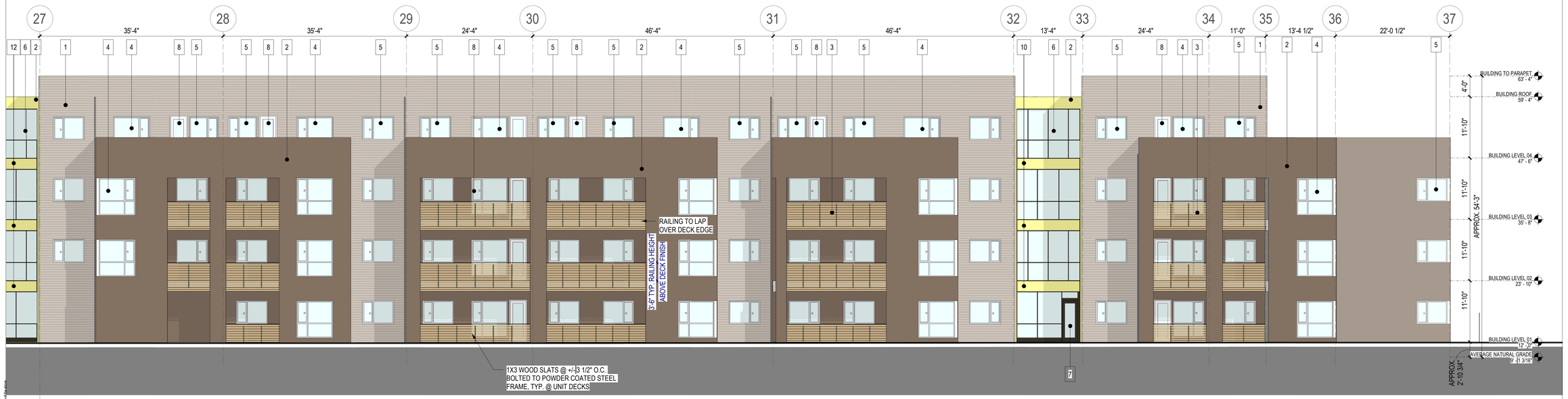
11. 7'-0" steel picket security fence
12. Laminated Wood-Print Panel
13. Ptd. Metal Fascia w/ Mtl. Roofing
14. Painted Mural; T.B.D.
15. Metal Cladding
16. Metal Railings
17. Bronze vinyl window in 2" recess w/ 10" sill
18. Bronze vinyl window in 2" recess w/ 42" sill

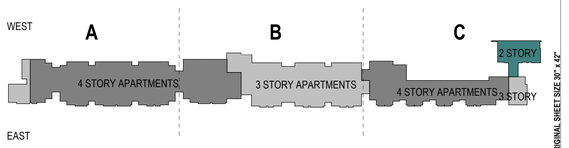
2 EAST ELEVATION - SECTION C

1/8" = 1'-0"



1 WEST ELEVATION - SECTION A

1/8" = 1'-0"



ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

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Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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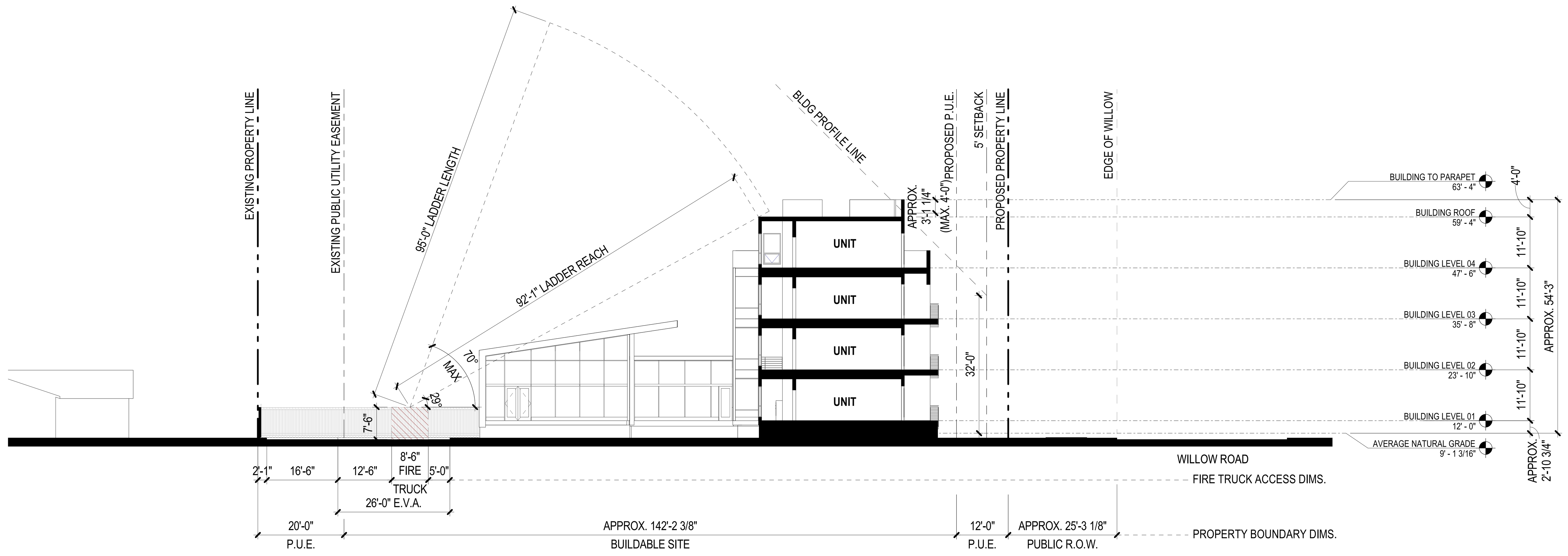
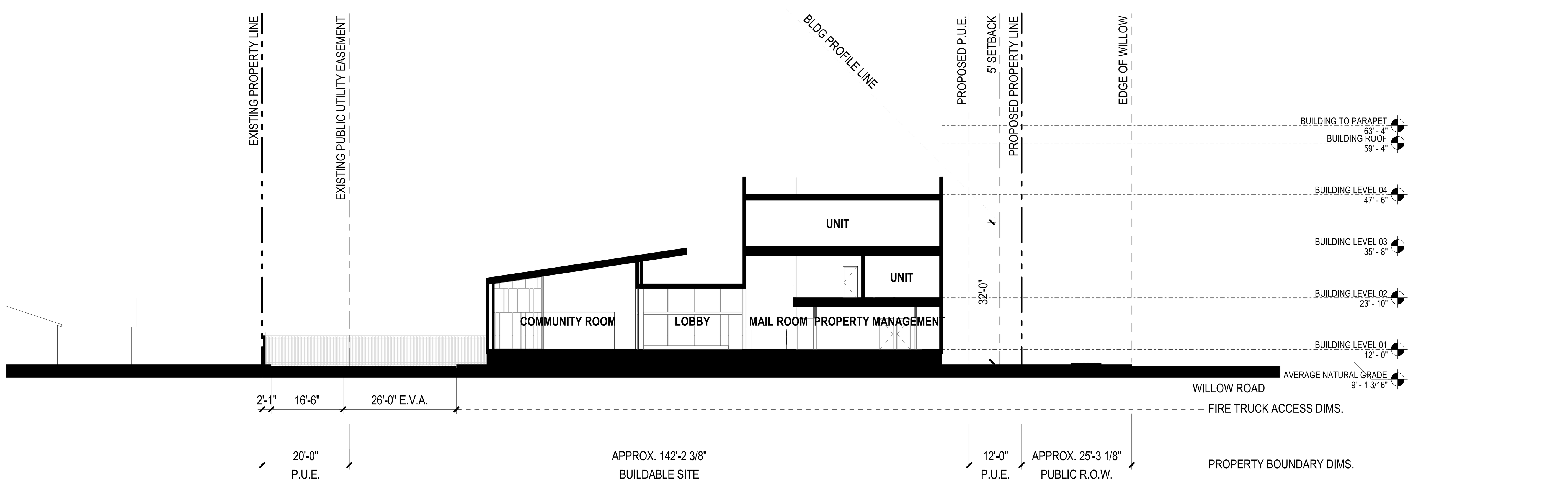
TITLE
BUILDING ELEVATIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

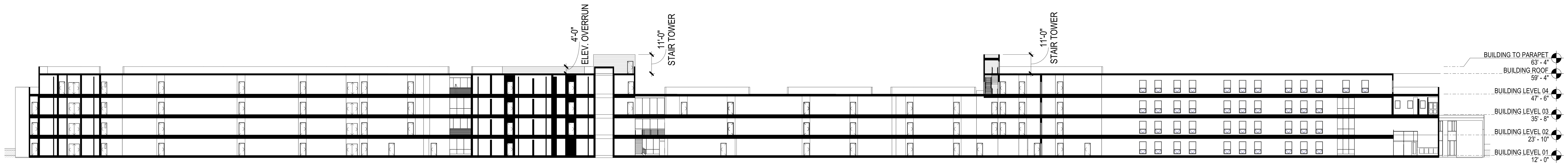
SHEET NUMBER
A3.02c
ZONING COMPLIANCE RESUBMITTAL



3 SECTION THRU COURTYARD
1/16" = 1'-0"



2 SECTION THRU MAIN LOBBY
1/16" = 1'-0"



1 LONGITUDINAL SECTION
1" = 30'-0"

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SAN FRANCISCO / 660 Market Street, #300 San Francisco, CA 94104 / 415.956.0686

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

DESIGN PARTNER AT
PROJECT MANAGER KB
PROJECT ARCHITECT AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS EO
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TITLE
BUILDING SECTIONS

PROJECT NO. 1526000
DATE FEBRUARY 25, 2019

SHEET NUMBER
A3.10
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

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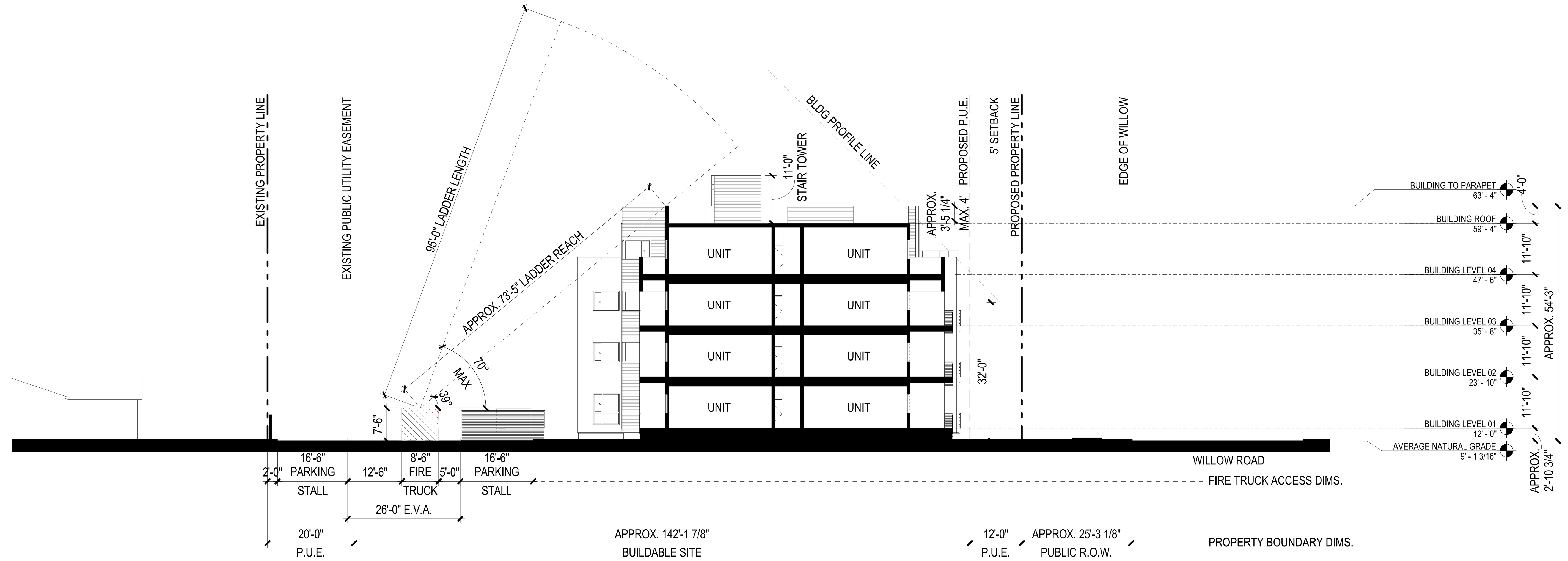
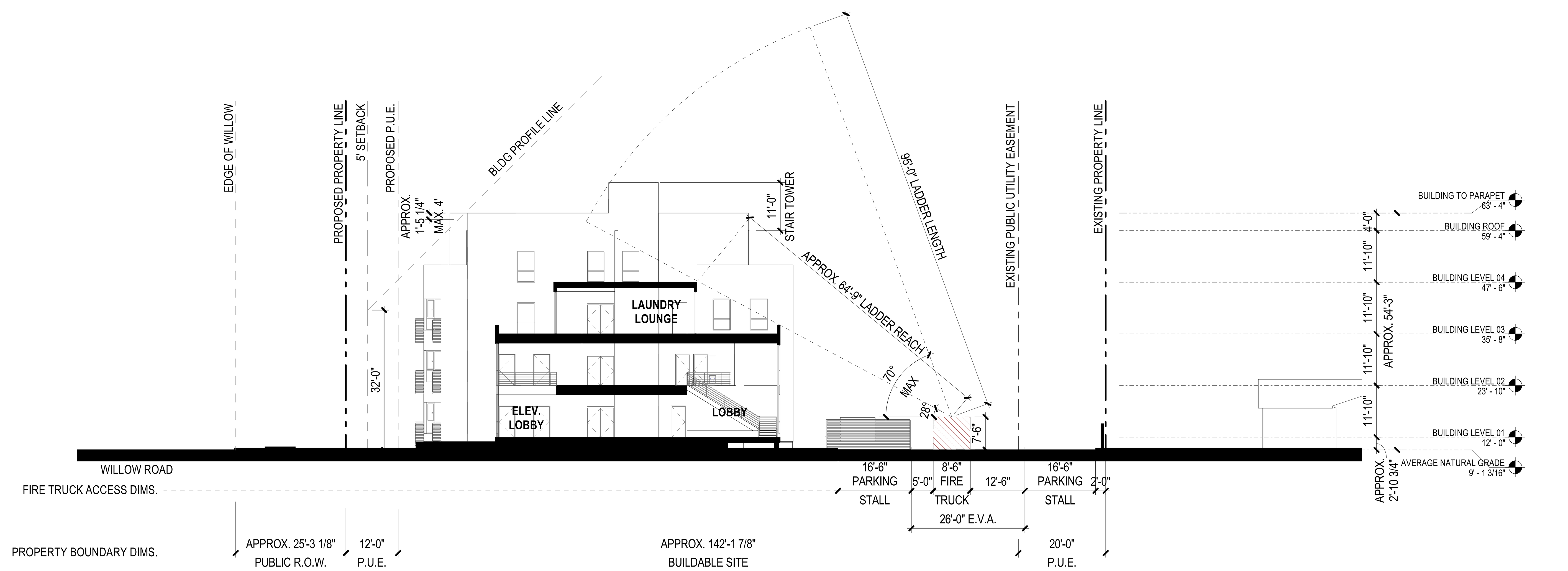
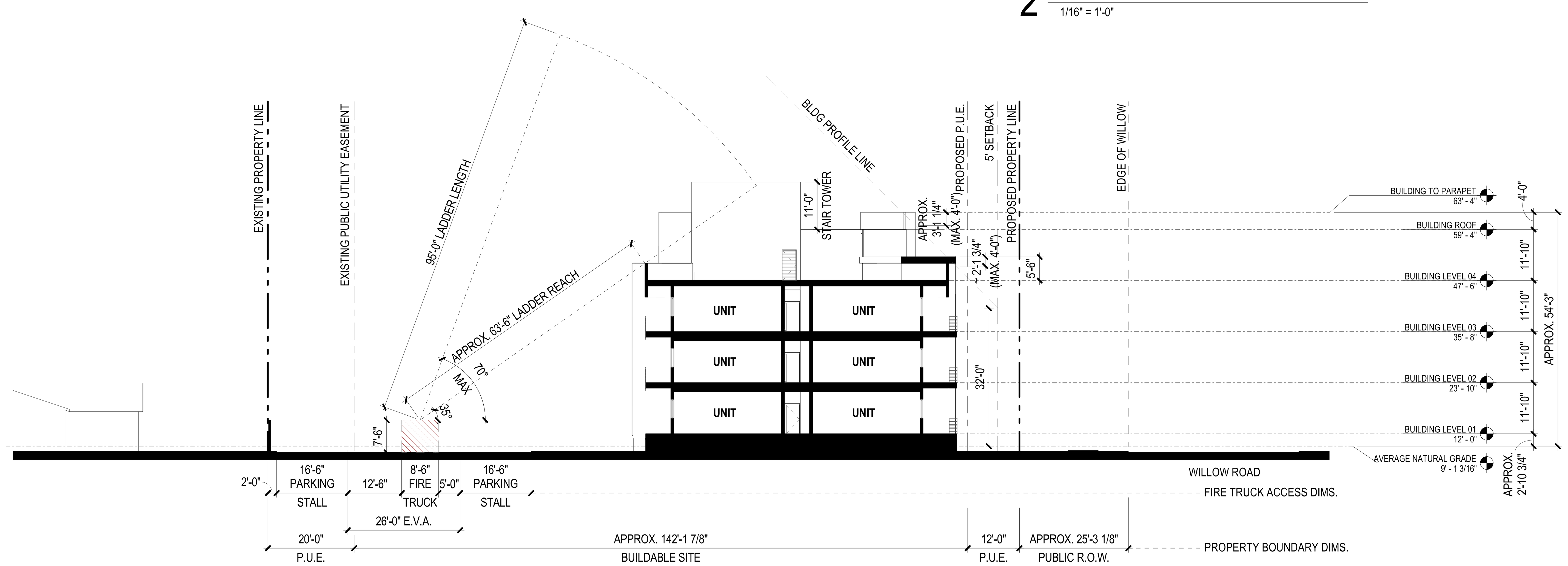
2/27/2019 7:55:29 PM



3 SECTION THROUGH 4-STORY
1/16" = 1'-0"



2 SECTION THROUGH 3-STORY
1/16" = 1'-0"



1 SECTION THROUGH 3-STORY
1/16" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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TITLE
BUILDING SECTIONS

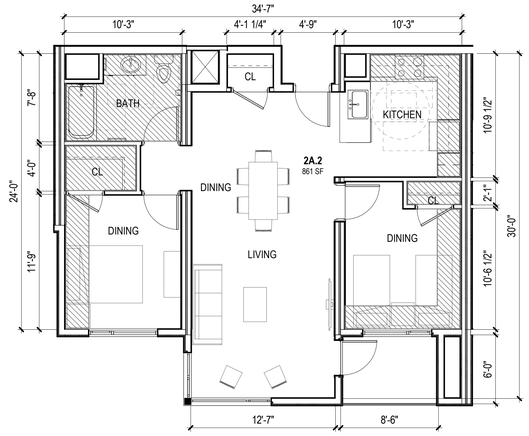
PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A3.11

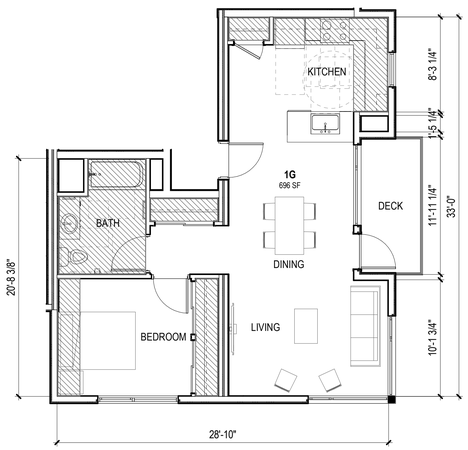
ZONING COMPLIANCE RESUBMITTAL

ORIGINAL SHEET SIZE 30" x 42"

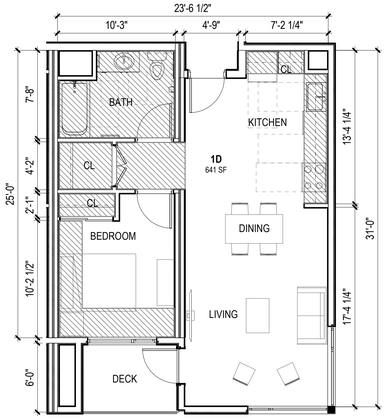
NOT FOR CONSTRUCTION



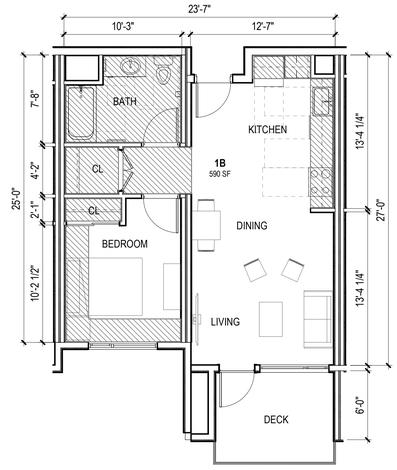
12 UNIT 2A.2
3/16" = 1'-0"



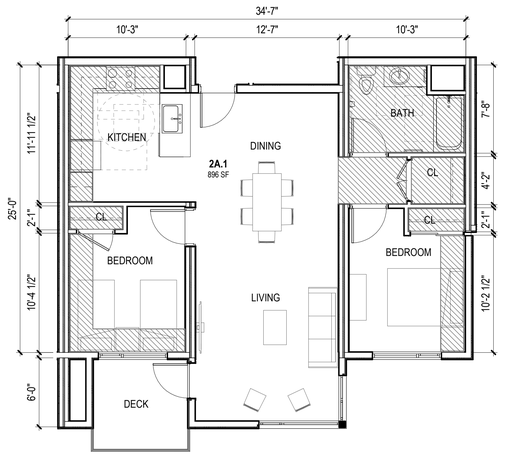
9 UNIT 1G
3/16" = 1'-0"



6 UNIT 1D
3/16" = 1'-0"



3 UNIT 1B
3/16" = 1'-0"



11 UNIT 2A.1
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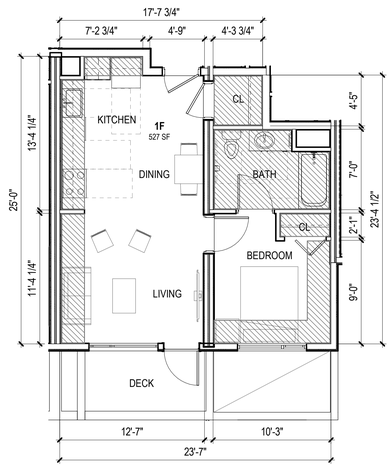
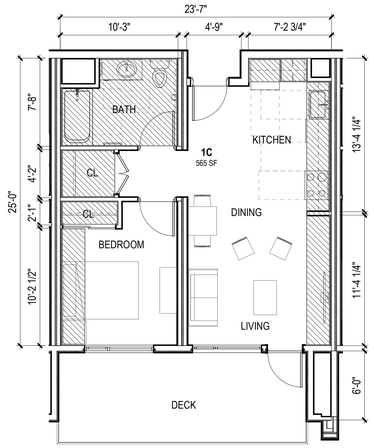
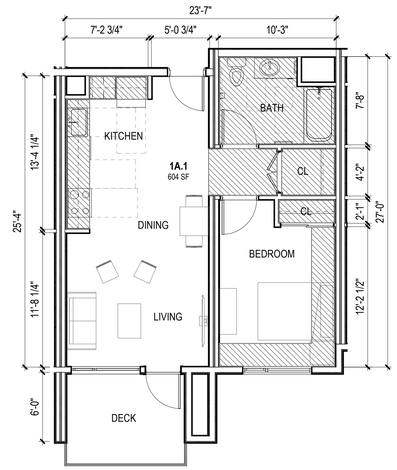


8 UNIT 1F
3/16" = 1'-0"



5 UNIT 1C
3/16" = 1'-0"



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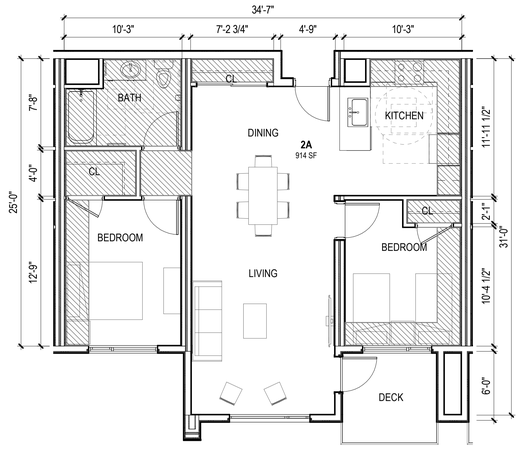
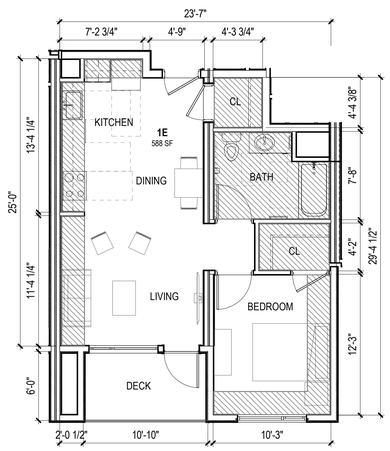
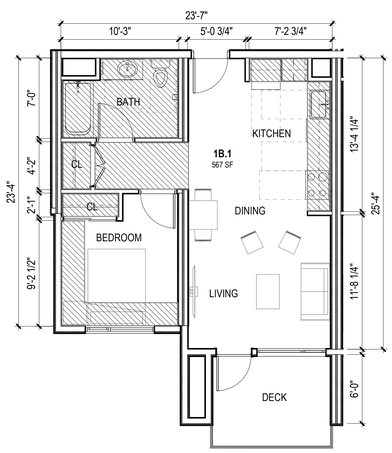


10 UNIT 2A
3/16" = 1'-0"



7 UNIT 1E
3/16" = 1'-0"



4 UNIT 1B.1
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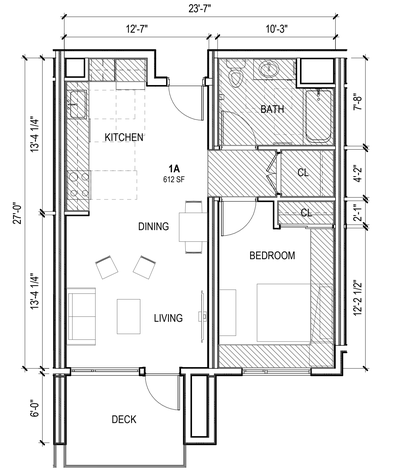

1 UNIT 1A
3/16" = 1'-0"

NOTE: PLEASE REFERENCE SHEETS A2.01a-2.04c FOR UNIT LOCATIONS. ALL UNIT TYPES ARE TYPICAL.

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ORIGINAL SHEET SIZE: 30" x 42"

2/22/2019 2:38:58 PM

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San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
UNIT PLANS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A6.01
ZONING COMPLIANCE RESUBMITTAL

2/22/2019 2:39:04 PM

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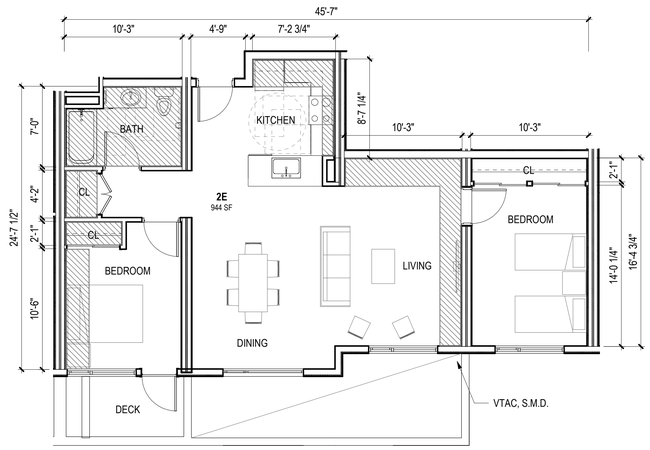
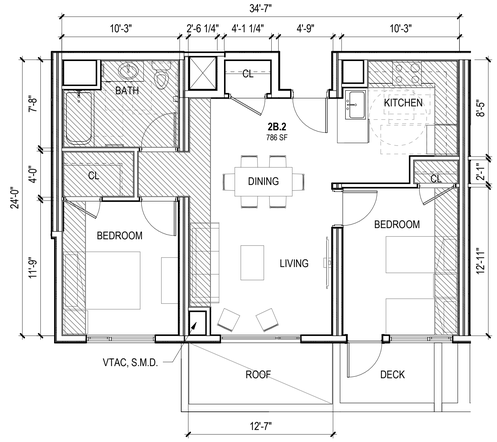
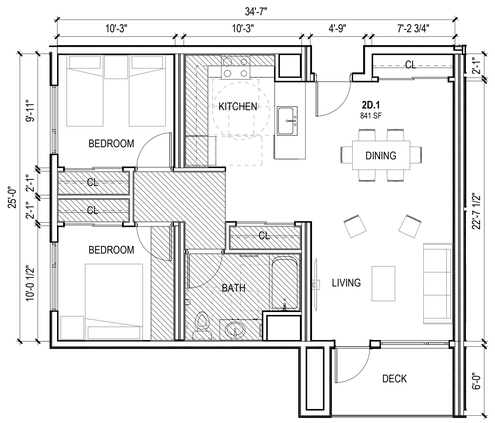


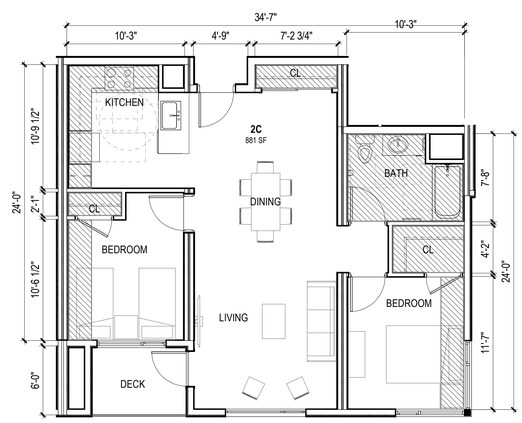
8 UNIT 2E
3/16" = 1'-0"



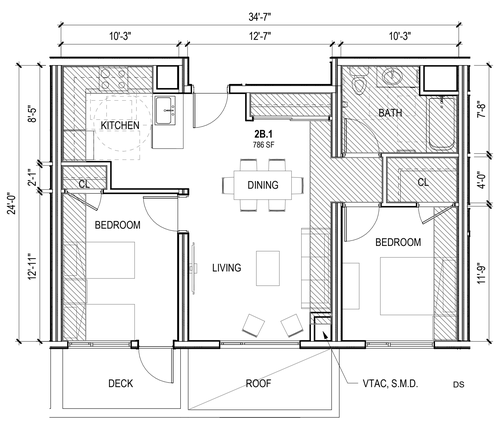
3 UNIT 2B.2
3/16" = 1'-0"



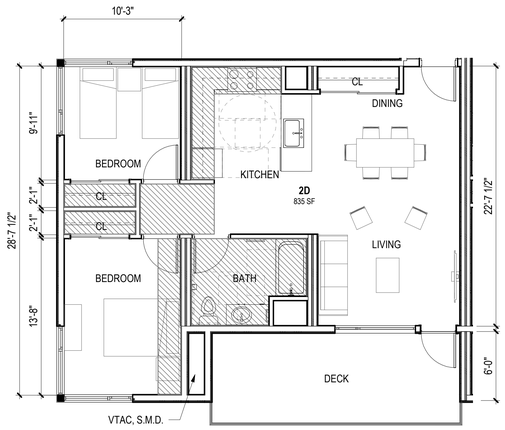
7 UNIT 2D.1
3/16" = 1'-0"



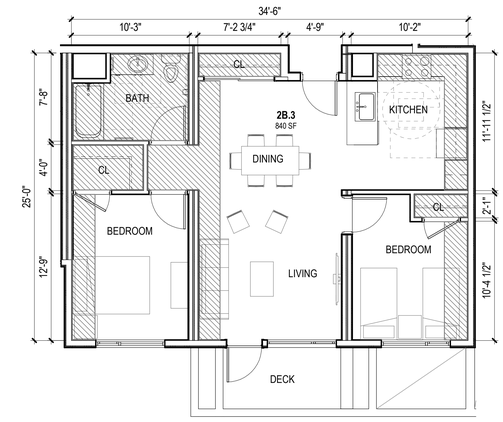
5 UNIT 2C
3/16" = 1'-0"



2 UNIT 2B.1
3/16" = 1'-0"



6 UNIT 2D
3/16" = 1'-0"



4 UNIT 2B.3
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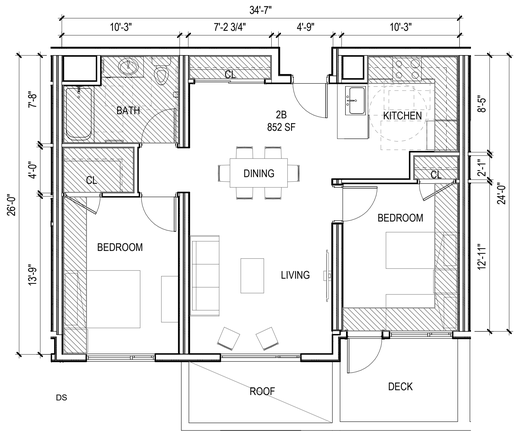

1 UNIT 2B
3/16" = 1'-0"

NOTE: PLEASE REFERENCE SHEETS A2.01a-2.04c FOR UNIT LOCATIONS. ALL UNIT TYPES ARE TYPICAL.

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 36" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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CHECK

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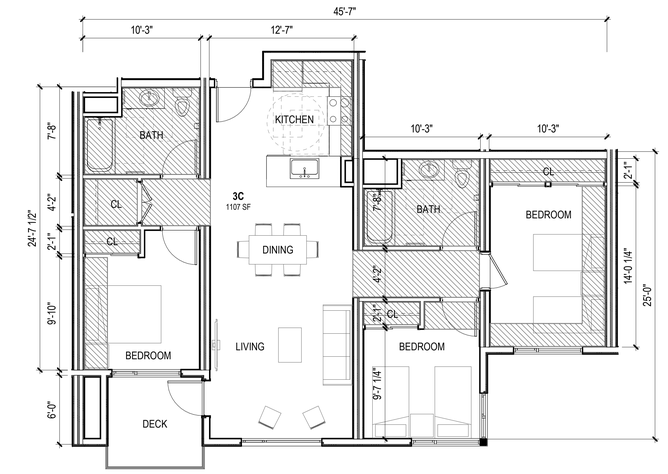
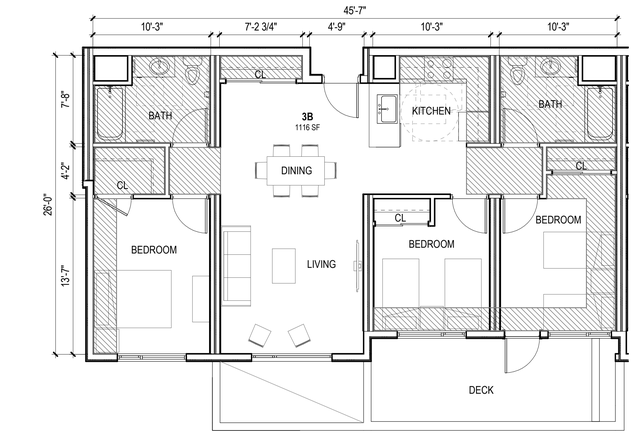
TITLE
UNIT PLANS

PROJECT NO
1526000
DATE
FEBRUARY 25, 2019

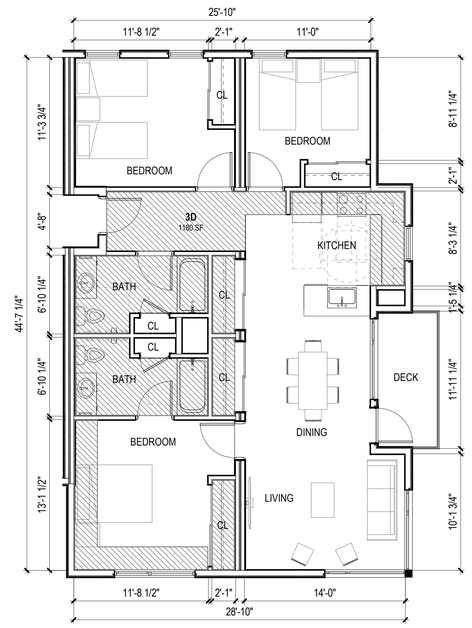
SHEET NUMBER
A6.02
ZONING COMPLIANCE RESUBMITTAL



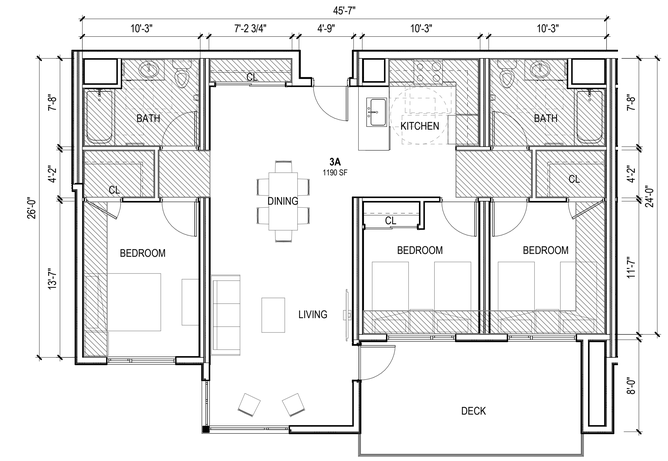
3 UNIT 3C
3/16" = 1'-0"



2 UNIT 3B
3/16" = 1'-0"



4 UNT 3D
3/16" = 1'-0"



1 UNIT 3A
3/16" = 1'-0"

NOTE: PLEASE REFERENCE SHEETS A2.01a-2.04c FOR UNIT LOCATIONS. ALL UNIT TYPES ARE TYPICAL.

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ORIGINAL SHEET SIZE 36" x 42"

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Seattle, WA 98101 / 206.623.3344

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San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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TITLE
UNIT PLANS

PROJECT NO
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
A6.03
ZONING COMPLIANCE RESUBMITTAL.

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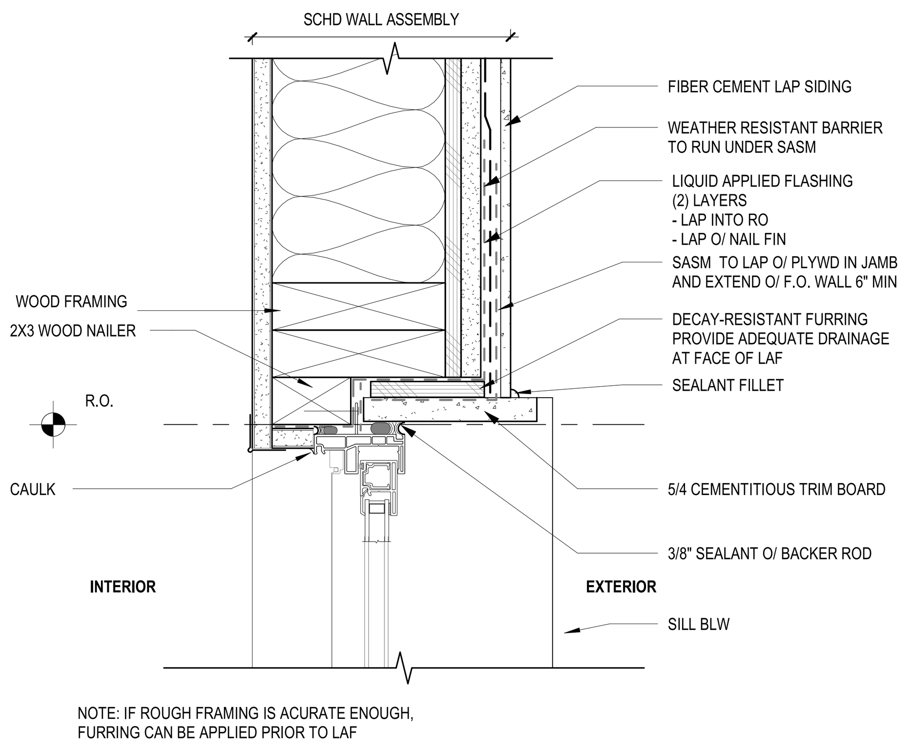
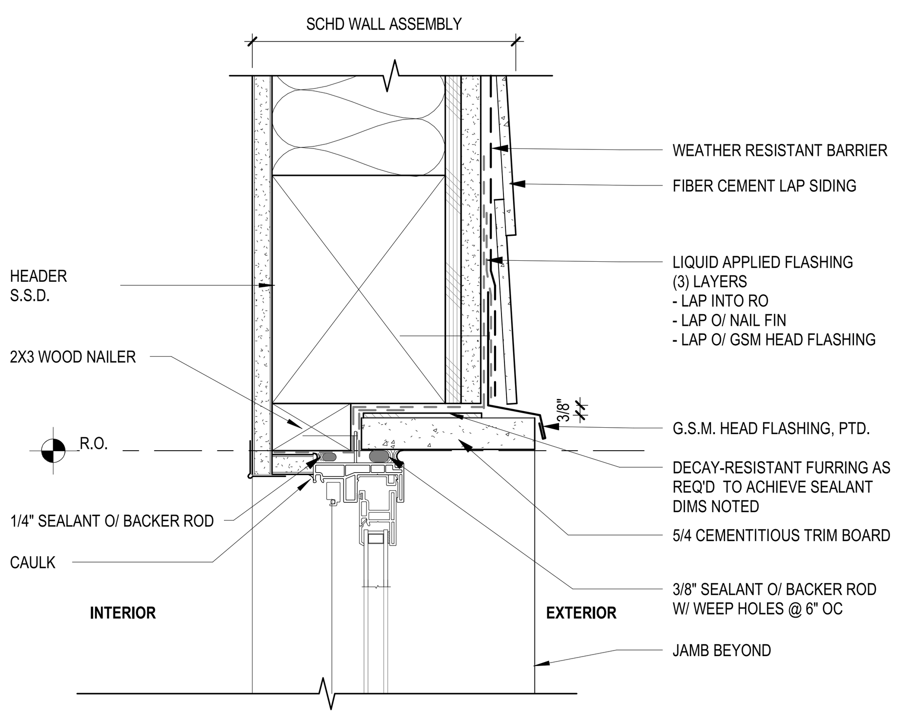
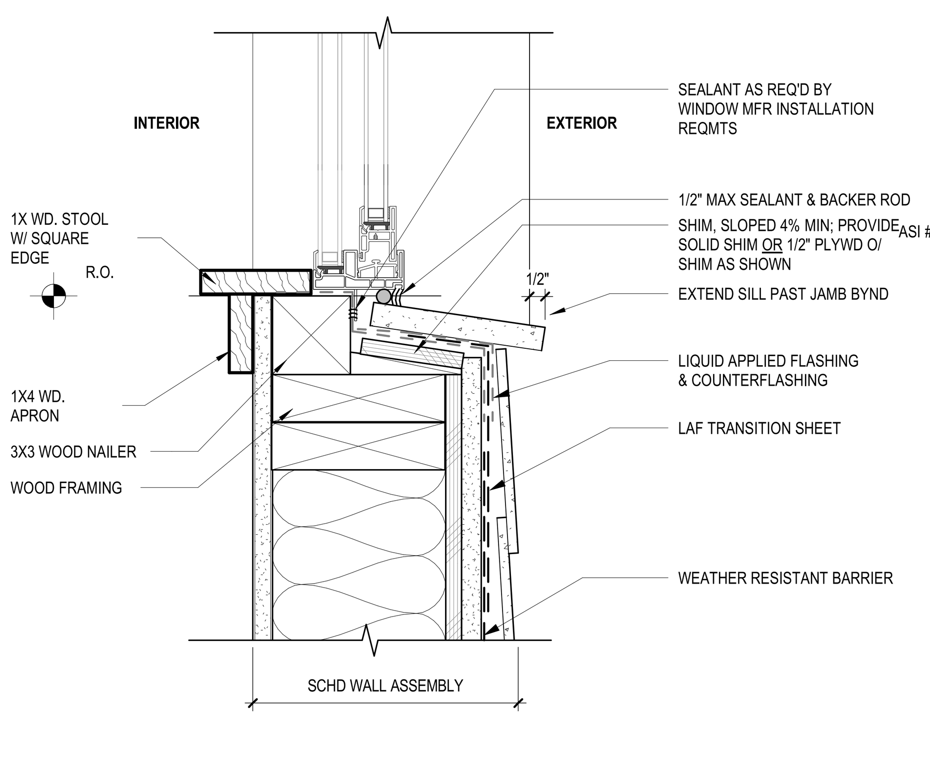


NOTE: IF ROUGH FRAMING IS ACURATE ENOUGH, FURRING CAN BE APPLIED PRIOR TO LAF

3 TYP WINDOW JAMB @ LAP SIDING
3" = 1'-0"



2 TYP WINDOW HEAD @ LAP SIDING
3" = 1'-0"



1 TYP WINDOW SILL @ LAP SIDING
3" = 1'-0"

2/22/2019 3:21:01 PM

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
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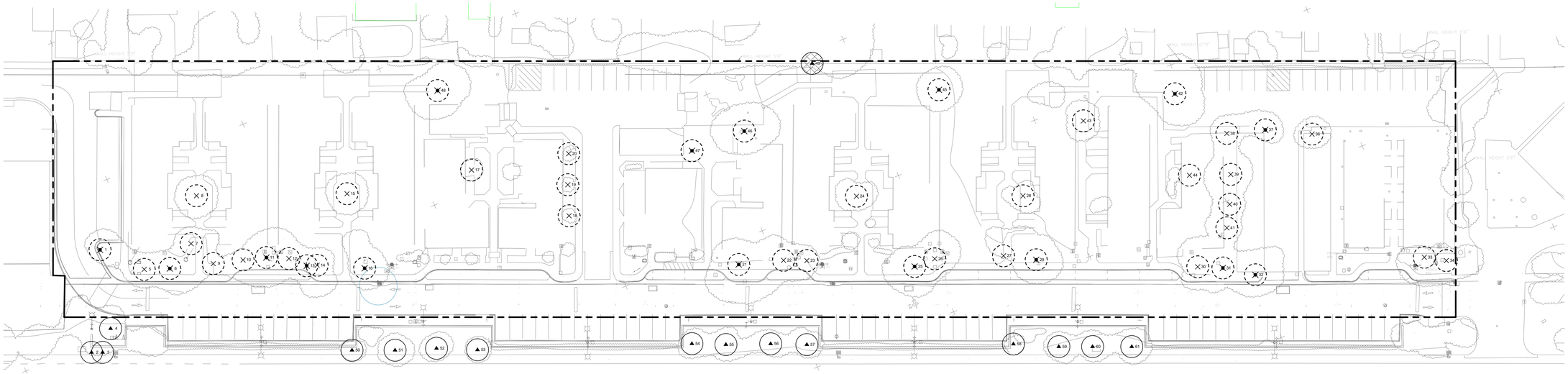
TITLE
TYPICAL DETAILS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

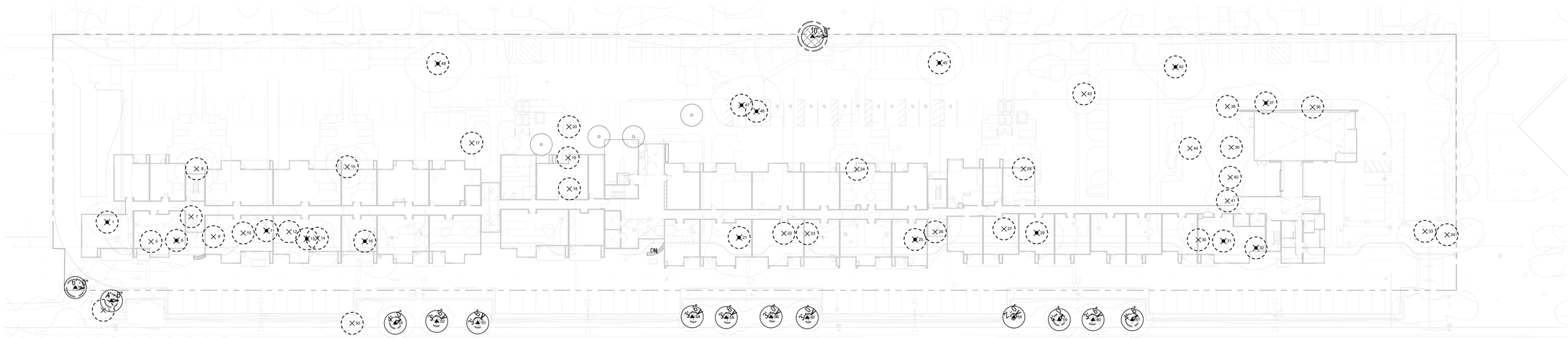
ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
A9.01
ZONING COMPLIANCE RESUBMITTAL

NOT FOR CONSTRUCTION



1 EXISTING TREE PLAN
1" = 30'-0"



2 TREE DEMOLITION PLAN PROPOSED
1" = 30'-0"

TREE DEMOLITION LEGEND

- XX — REMOVE (NON HERITAGE)
- XX — REMOVE (HERITAGE)
- ▲ XX — PRESERVE (NON HERITAGE)
- ▲ XX — PRESERVE (HERITAGE)
- RADIUS — TREE PROTECTION ZONE

ON-SITE TREE ASSESSMENT

Tree No.	Comments	Demolish	Tree Diameter (in.)	Heritage (Y/N)	Condition (1=poor 5=excellent)
1	#1 (Raywood Ash)	Yes	15	Yes	2
2	#2 (Raywood Ash)	No	13	No	3
3	#3 (Raywood Ash)	Yes	11	No	3
4	#4 (Raywood Ash)	No	10	No	3
5	#5 (Raywood Ash)	Yes	13	No	3
6	#6 (Raywood Ash)	Yes	18	Yes	4
7	#7 (Purpleleaf Plum; Elevation Estimated)	Yes	6	No	4
8	#8 (Callery Pear; Elevation Estimated)	Yes	14	No	3
9	#9 (Raywood Ash)	Yes	8	No	3
10	#10 (Raywood Ash)	Yes	12	No	4
11	#11 (Raywood Ash)	Yes	18	Yes	4
12	#12 (Raywood Ash)	Yes	12	No	4
13	#13 (Raywood Ash; Elevation Estimated)	Yes	15	Yes	3
14	#14 (Purpleleaf Plum)	Yes	6	No	4
15	#15 (Callery Pear; Elevation Estimated)	Yes	15	Yes	3
16	#16 (Raywood Ash)	Yes	20	Yes	3
17	#17 (Pear; Elevation Estimated)	Yes	7	No	3
18	#18 (Japanese Flowering Cherry; Elevation Estimated)	Yes	6	No	2
19	#19 (Japanese Flowering Cherry; Elevation Estimated)	Yes	6	No	3
20	#20 (Japanese Flowering Cherry; Elevation Estimated)	Yes	6	No	3

ON-SITE TREE ASSESSMENT

Tree No.	Comments	Demolish	Tree Diameter (in.)	Heritage (Y/N)	Condition (1=poor 5=excellent)
21	#21 (Modesto Ash)	Yes	24	Yes	3
22	#22 (Raywood Ash)	Yes	14	No	3
23	#23 (Raywood Ash)	Yes	12	No	2
24	#24 (Callery Pear; Elevation Estimated)	Yes	8	No	3
25	#25 (Raywood Ash)	Yes	20	Yes	3
26	#26 (Raywood Ash)	Yes	14	No	2
27	#27 (Purpleleaf Plum; Elevation Estimated)	Yes	6	No	4
28	#28 (African Sumac; Elevation Estimated)	Yes	7	No	3
29	#29 (Raywood Ash)	Yes	18	Yes	3
30	#30 (Raywood Ash)	Yes	15	Yes	3
31	#31 (Raywood Ash)	Yes	16	Yes	3
32	#32 (Raywood Ash)	Yes	16	Yes	4
33	#33 (Callery Pear)	Yes	15	Yes	3
34	#34 (Callery Pear)	Yes	11	No	3
36	#36 (Callery Pear; Elevation Estimated)	Yes	13	No	3
37	#37 (Raywood Ash; Elevation Estimated)	Yes	17	Yes	2
38	#38 (Raywood Ash; Elevation Estimated)	Yes	14	No	3
39	#39 (Raywood Ash; Elevation Estimated)	Yes	15	Yes	3
40	#40 (Raywood Ash; Elevation Estimated)	Yes	12	No	3
41	#41 (Raywood Ash; Elevation Estimated)	Yes	13	No	3
42	#42 (White Alder; Elevation Estimated)	Yes	31	Yes	4

ON-SITE TREE ASSESSMENT

Tree No.	Comments	Demolish	Tree Diameter (in.)	Heritage (Y/N)	Condition (1=poor 5=excellent)
43	#43 (Callery Pear; Elevation Estimated)	Yes	13	No	3
44	#44 (Callery Pear; Elevation Estimated)	Yes	13	No	3
45	#45 (White Alder; Elevation Estimated)	Yes	20	Yes	3
46	#46 (White Alder; Elevation Estimated)	Yes	15	Yes	3
47	#47 (White Alder; Elevation Estimated)	Yes	19	Yes	3
48	#48 (White Alder; Elevation Estimated)	Yes	27	Yes	4
49	#49 (California Black Walnut; Elevation Estimated)**Off site; codominant trunks at 5'; mostly dead; overhanging site	No	22, 18	Yes	1
50	#50 (London Plane; Elevation Estimated)	Yes	7	No	3
51	#51 (London Plane; Elevation Estimated)	No	8	No	4
52	#52 (London Plane; Elevation Estimated)	No	7	No	3
53	#53 (London Plane; Elevation Estimated)	No	7	No	3
54	#54 (London Plane; Elevation Estimated)	No	7	No	4
55	#55 (London Plane; Elevation Estimated)	No	7	No	4
56	#56 (London Plane; Elevation Estimated)	No	6	No	3
57	#57 (London Plane; Elevation Estimated)	No	6	No	4
58	#58 (London Plane; Elevation Estimated)	No	4	No	3
59	#59 (London Plane; Elevation Estimated)	No	8	No	4
60	#60 (London Plane; Elevation Estimated)	No	7	No	3
61	#61 (London Plane; Elevation Estimated)	No	9	No	3
62	#62 (Coast Live Oak)	Yes	6	No	2

NOTES:
#62 IS A VOLUNTEER GROWING WITHIN AN AUSTRALIAN TEA TREE SHRUB, AND IS NOT SHOWN ON THE PLAN. PROPOSED FOR REMOVAL FOR NEW WALKWAY.

HERITAGE TREE MITIGATION

Total Trees Proposed for Removal: 47
Heritage Trees Proposed for Removal: 21

Heritage Tree Replacements:

NO.	SPECIES	SIZE
(29)	PLATANUS X ACERIFOLIA COLUMBIA	24" BOX
(7)	QUERCUS AGRIFOLIA	48" BOX
(6)	LOPHOSTEMON CONFERTUS	24" BOX

42 TOTAL, 2:1 REPLACEMENT RATIO

Notes:
1. A total of 124 new trees are proposed for the site overall
2. See Planting Plan, sheet L2.01 for new tree locations

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
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PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

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LANDSCAPE ARCHITECT SEAL

TITLE
TREE MITIGATION PLAN

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L0.01
R4S ZONING COMPLIANCE

ORIGINAL SHEET SIZE: 36" x 42"

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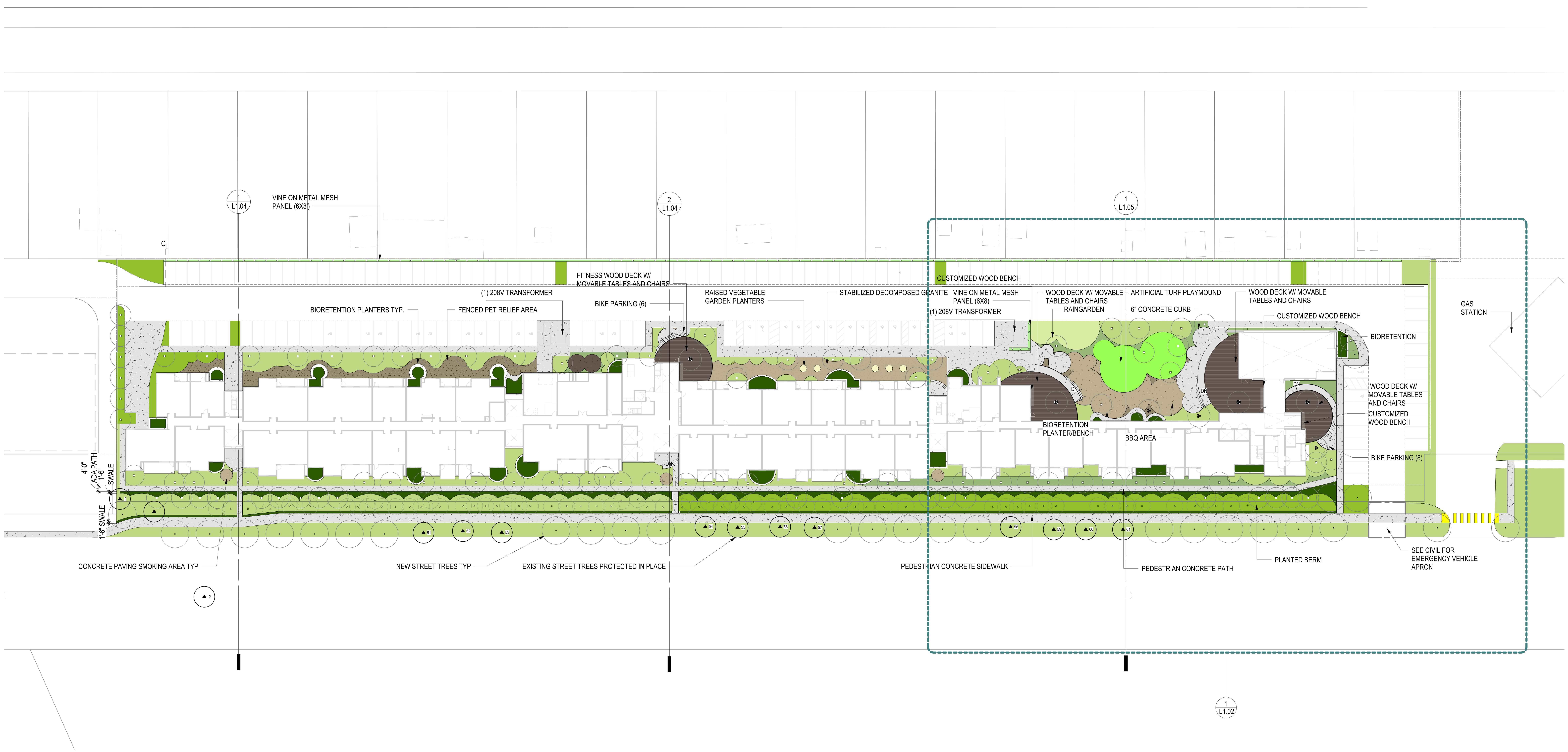

1 SITE LAYOUT PLAN-OVERALL
1" = 30'-0"

PLAN LEGEND

- CONCRETE
- DECOMPOSED GRANITE
- STABILIZED DECOMPOSED GRANITE
- WOOD DECK
- ARTIFICIAL TURF GRASS
- PLANTING AREA
- BIORETENTION AREA
- VEGETABLES GARDEN
- VINES
- RAIN GARDEN
- GRASSES
- TREES

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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MCU
PROJECT TEAM MEMBERS

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LANDSCAPE ARCHITECT SEAL

TITLE
SCHEMATIC LANDSCAPE PLAN

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
L1.01
R4S ZONING COMPLIANCE

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1 ENLARGEMENT 1 - COURTYARD

1" = 10'-0"

PLAN LEGEND

- CONCRETE
- DECOMPOSED GRANITE
- STABILIZED DECOMPOSED GRANITE
- WOOD DECK
- ARTIFICIAL TURF GRASS
- PLANTING AREA
- BIORETENTION AREA
- VEGETABLES GARDEN
- VINES
- RAIN GARDEN
- GRASSES
- TREES

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ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
DG
PROJECT MANAGER
TM
PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

CHECK

LANDSCAPE ARCHITECT SEAL

TITLE
SCHEMATIC LANDSCAPE ENLARGEMENTS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L1.02
R4S ZONING COMPLIANCE

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PLANTED BERM

STABILIZED DECOMPOSED GRANITE PATH

MOVEABLE TABLES AND CHAIRS, WOOD AND STEEL

WOOD DECK

RAINGARDEN

ARTIFICIAL TURF PLAYMOUND

STABILIZED DECOMPOSED GRANITE PATH

CONCRETE BIORETENTION PLANTER/BENCH TYP.

MOVEABLE TABLES AND CHAIRS, WOOD AND STEEL

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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DESIGN PARTNER
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PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

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LANDSCAPE ARCHITECT SEAL

TITLE
PERSPECTIVE VIEWS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
L1.03
R4S ZONING COMPLIANCE

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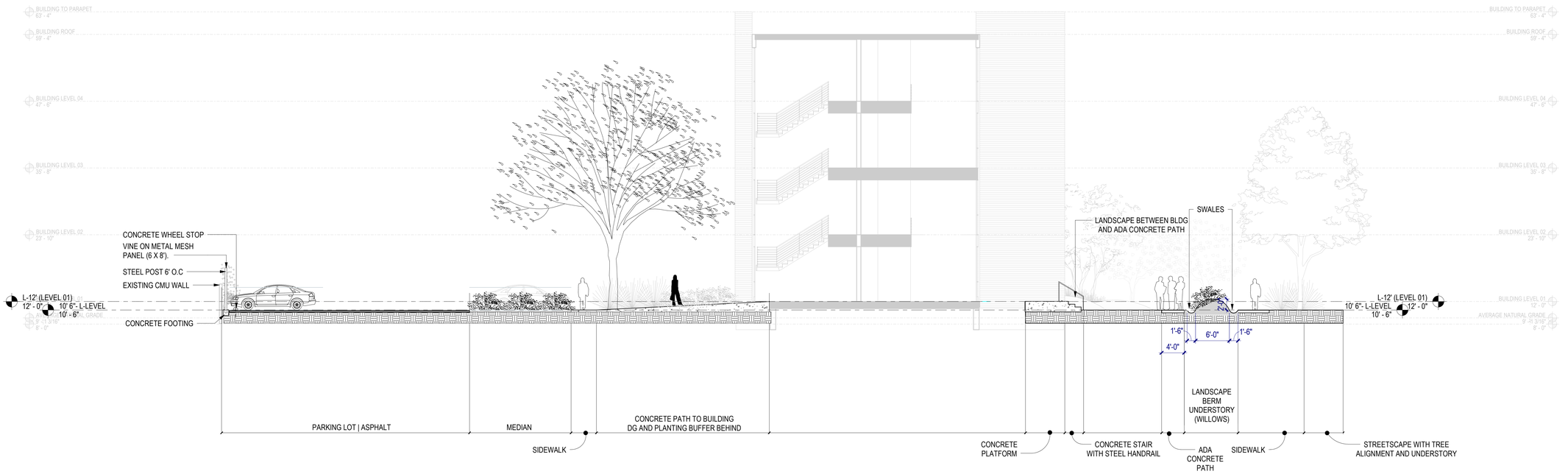
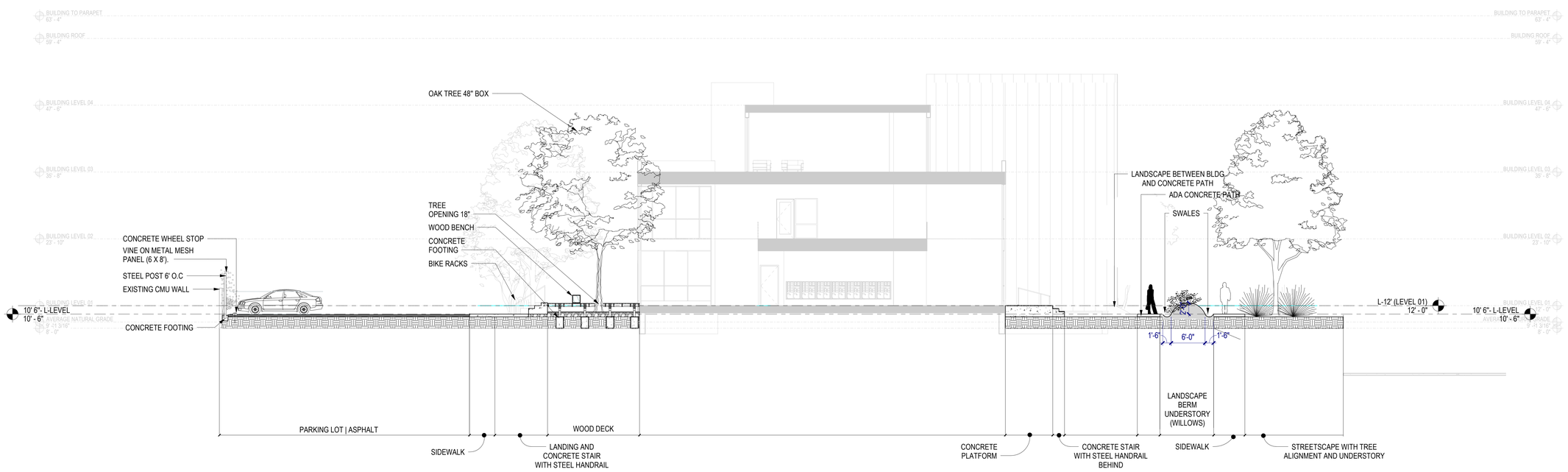


1 SECTION 2
1/8" = 1'-0"



2 SECTION 3
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LOCATION
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TITLE
SCHEMATIC SECTIONS

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1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
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R4S ZONING COMPLIANCE

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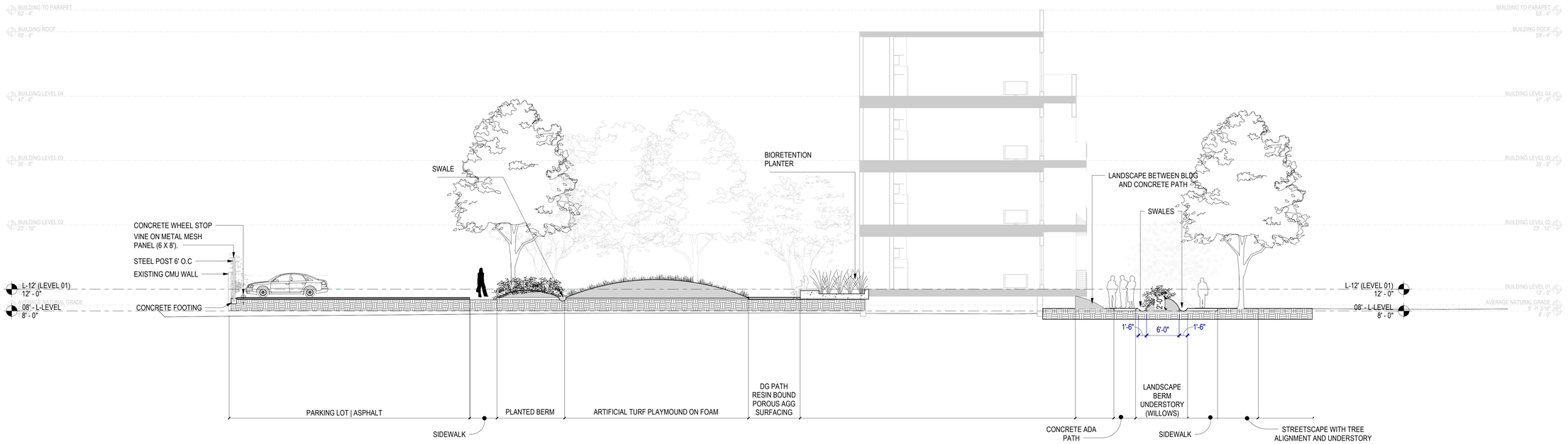

1 SECTION COURTYARD
1/8" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
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PROJECT MANAGER
TM
PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

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TITLE
SCHEMATIC SECTIONS

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L1.05
R4S ZONING COMPLIANCE

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TREES LEGEND

QTY	BOTANICAL NAME	COMMON NAME	FOLIAGE	SIZE	ON-CENTER SPACING	WATER USE	LIGHT REQUIREMENTS
TREE							
88	Lophostemon confertus	BRISBANE BOX	EVERGREEN	24" BOX	AS SHOWN	LOW	FULL SUN
28	Platanus x acerifolia 'Columbia'	LONDON PLANE	DECIDUOUS	24" BOX	AS SHOWN	MEDIUM	FULL SUN
7	Quercus agrifolia	COAST LIVE OAK	EVERGREEN	48" BOX	AS SHOWN	LOW	FULL SUN
123							

TREES TO REMAIN

Tree No.	Comments	Tree Diameter (in.)	Heritage (Y/N)	Condition (1=poor 5=excellent)
2	#2 (Raywood Ash)	13	No	3
4	#4 (Raywood Ash)	10	No	3
49	#49 (California Black Walnut; Elevation Estimated)**Off site; codominant trunks at 5'; mostly dead; overhanging site	22, 18	Yes	1
51	#51 (London Plane; Elevation Estimated)	8	No	4
52	#52 (London Plane; Elevation Estimated)	7	No	3
53	#53 (London Plane; Elevation Estimated)	7	No	3
54	#54 (London Plane; Elevation Estimated)	7	No	4
55	#55 (London Plane; Elevation Estimated)	7	No	4
56	#56 (London Plane; Elevation Estimated)	6	No	3
57	#57 (London Plane; Elevation Estimated)	6	No	4
58	#58 (London Plane; Elevation Estimated)	4	No	3
59	#59 (London Plane; Elevation Estimated)	8	No	4
60	#60 (London Plane; Elevation Estimated)	7	No	3
61	#61 (London Plane; Elevation Estimated)	9	No	3

NOTE: ALL PROPOSED TREE SPECIES IN PUBLIC ROW SHALL BE SUBJECT TO APPROVAL BY THE CITY ARBORIST

UNDERSTORY LEGEND

SHRUBS AND GROUNDCOVERS MIX

VINES MIX

GRASSES MIX

UNDERSTORY

BOTANICAL NAME	COMMON NAME	SIZE	ON-CENTER SPACING	WATER USE
Arctostaphylos densiflora	MANZANITA	5 GALLON	3' - 0"	DROUGHT TOLERANT
Coprosma repens	GOLD SPLASH MIRROR PLANT	5 GALLON	2' - 6"	LOW
Erigeron karvinskianus	SANTA BARBARA DAISY	1 GALLON	0' - 6"	MEDIUM
Fragaria chiloensis	ORNAMENTAL STRAWBERRY	1 GALLON	0' - 6"	LOW
Hemerocallis spp	DAYLILIES	5 GALLON	2' - 0"	MEDIUM
Mahonia aquifolium	OREGON-GRAPE	5 GALLON	3' - 0"	DROUGHT TOLERANT
Muhlenbergia rigens	DEER GRASS	5 GALLON	2' - 6"	DROUGHT TOLERANT
Passiflora 'Blue Horizon'	PASSION VINE	5 GALLON	2' - 0"	LOW
Penstemon heterophyllus	FOOTHILL PENTESMON	1 GALLON	0' - 6"	DROUGHT TOLERANT
Salix spp.	SALIX SHRUB	5 GALLON	2' - 6"	MEDIUM-HIGH
Salvia leucophylla	PURPLE SAGE	5 GALLON	3' - 0"	DROUGHT TOLERANT
Sisyrinchium bellum	BLUE-EYED GRASS	1 GALLON	0' - 6"	DROUGHT TOLERANT
Solanum jasminoides	POTATOE VINE	5 GALLON	2' - 6"	LOW

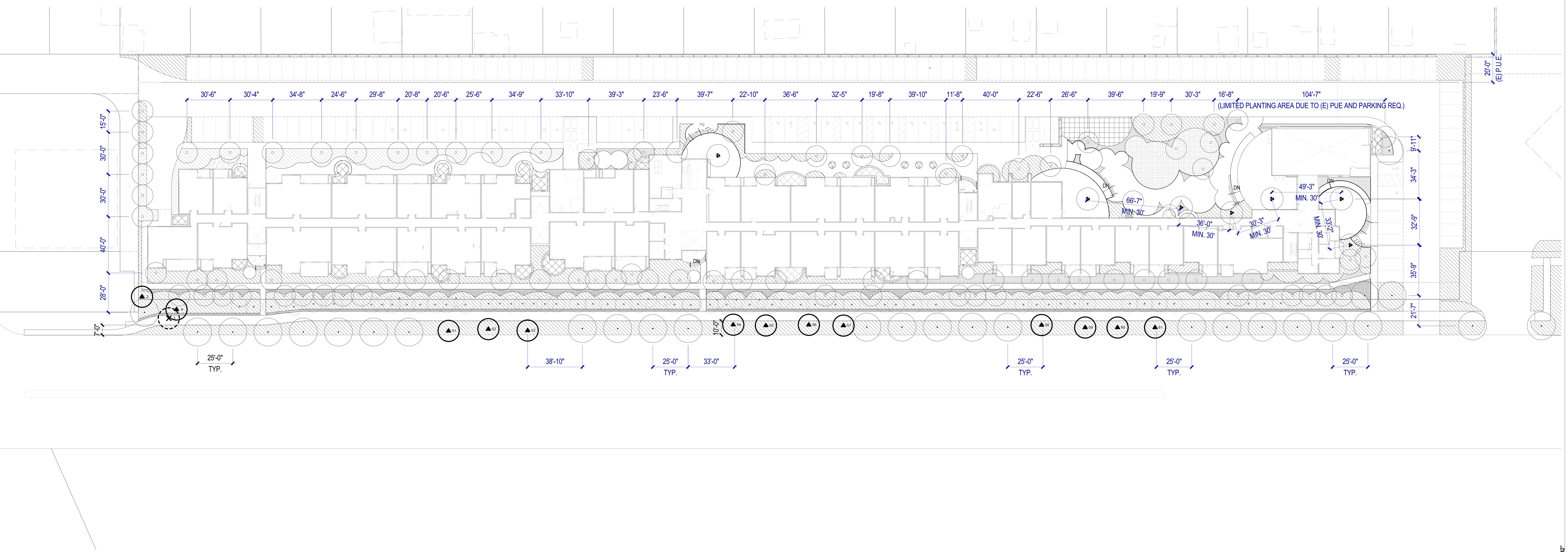
BIORETENTION LEGEND

BIORETENTION MIX

RAINGARDEN MIX

BIORETENTION

BOTANICAL NAME	COMMON NAME	SIZE	ON-CENTER SPACING	WATER USE
Chondropetalum tectorum 'El Campo'	CAPE RUSH	1 GALLON	3' - 0"	LOW
Festuca idahoensis 'Siskiyou Blue'	IDAHO FESCUE	1 GALLON	2' - 0"	LOW
Leymus condensatus 'Canyon Prince'	WILD RYE	5 GALLON	4' - 0"	LOW
Lomandra longifolia 'Breeze'	DWARF MAT RUSH	1 GALLON	2' - 6"	LOW
Mimulus aurantiacus	STICKY MONKEY FLOWER	1 GALLON	4' - 0"	LOW
Mimulus cardinalis	STICKY MONKEY FLOWER	1 GALLON	2' - 6"	LOW
Juncus patens	CALIFORNIA GREY RUSH	1 GALLON	2' - 0"	LOW
Salvia spathacea	HUMMINBIRD SAGE	1 GALLON	3' - 6"	LOW



1 PLANTING PLAN
1" = 30'-0"

NOTE:
1. HERITAGE TREE REPLACEMENT MINIMUN SPACING FOR QUERCUS AGRIFOLIA IS 30' ON CENTER (SEE PLAN)
2. ALL PROPOSED TREE SPECIES IN PUBLIC ROW (HERITAGE OR OTHERWISE) SHALL BE SUBJECT TO APPROVAL FROM THE CITY ARBORIST PRIOR TO APPROVAL.

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO DATE REVISION

DESIGN PARTNER
DG
PROJECT MANAGER
TM
PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

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LANDSCAPE ARCHITECT SEAL

TITLE
PLANTING PLAN AND PLANT LIST

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L2.01
R4S ZONING COMPLIANCE

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ORIGINAL SHEET SIZE 30" x 42"

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IRRIGATION DIAGRAM LEGEND

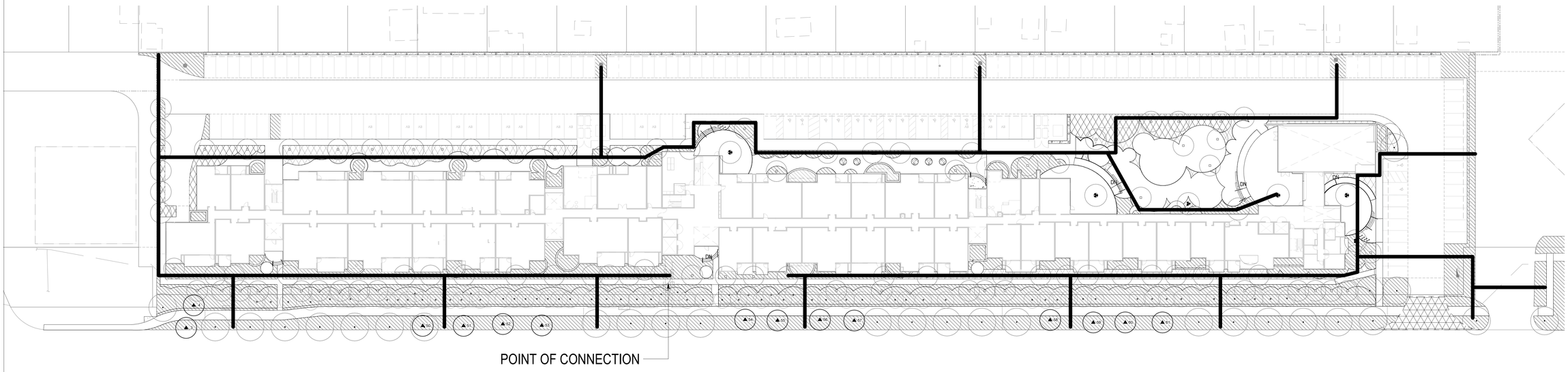
IRRIGATION MAINLINE ROUTING IS SCHEMATIC. FINAL ALIGNMENT TO BE COORDINATED WITH WET/DRY UTILITIES AND VERIFIED IN FIELD; PROVIDE SLEEVING WHEN ALIGNMENT IS BENEATH ANY PAVED SURFACES

NOTES:

1.IRRIGATION SYSTEM TO BE DESIGNED WITH CONTEMPORARY COMPONENTS AND 'SMART' IRRIGATION CONTROL. MASTER CONTROL VALVE AND FLOW SENSOR.
2. EQUIPMENT TO INCLUDE:
PLASTIC REMOTE CONTROL VALVES WITH LOW-FLOW CAPABILITIES
3. IN LINE DRIP IRRIGATION WITH MINIMUM 3" MULCH COVER IN PLANTING BEDS
4. BUBBLER IRRIGATION FOR TREES ON SEPARATE CONTROLS FOR DEEP ROOT WATERING
5. PROVIDE SEPARATE CONTROLLERS FOR OFF-SITE PLANTING
6. SYSTEM TO COMPLY WITH MINIMUM 81% IRRIGATION EFFICIENCY.
7. QUICK COUPLERS EVERY 150' ALONG NEW SUPPLY LINE

WATER USE ZONES - PRELIMINARY

LOW WATER	21979 SQ. FT
MODERATE	3659 SQ. FT
MODERATE TO HIGH	7761 SQ. FT



1 PRELIMINARY HYDROZONE PLAN & IRRIGATION DIAGRAM
1" = 30'-0"

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mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
DG
PROJECT MANAGER
TM
PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

CHECK

LANDSCAPE ARCHITECT SEAL

TITLE
PRELIMINARY HYDROZONE & IRRIGATION DIAGRAM

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

ORIGINAL SHEET SIZE: 30" x 42"

SHEET NUMBER
L2.02
R4S ZONING COMPLIANCE

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PROPOSED PLANT PALETTE - trees

Brisbane Box

Lophostemon confertus

Platanus Columbia

Platanus acerifolia var. 'Columbia'

Oak

Quercus agrifolia

Gray Willow

Salix bebbiana

Gooding's Willow

Salix gooddingii

Arroyo Willow

Salix lasiolepis

Red Willow

Salix laevigata

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
DG
PROJECT MANAGER
TM
PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

CHECK

LANDSCAPE ARCHITECT SEAL

TITLE
PLANT PALETTE - TREES

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L3.01
R4S ZONING COMPLIANCE

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ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

PROPOSED PLANT PALETTE - understory

Manzanita
Arctostaphylos densiflora

Gold Splash Mirror plant
Coprosma repens

Santa Barbara Daisy
Erigeron karvinskianus

Ornamental Strawberry
Fragaria chiloensis

Daylilies
Hemerocallis spp

Oregon-grape
Mahonia aquifolium

Deer Grass
Muhlenbergia rigens

Foothill Penstemon
Penstemon heterophyllus

Purple Sage
Salvia leucophylla

Blue-eyed Grass
Sisyrinchium bellum

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO. DATE REVISION

DESIGN PARTNER
DG
PROJECT MANAGER
TM
PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

CHECK

LANDSCAPE ARCHITECT SEAL

TITLE
PLANT PALETTE - UNDERSTORY

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L3.02
R4S ZONING COMPLIANCE

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ORIGINAL SHEET SIZE: 36" x 42"

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PROPOSED PLANT PALETTE - understory - vines

Passion Vine

Passiflora 'Blue Horizon'

Solanum jasminoides

Potatoe Vine

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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DESIGN PARTNER
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PROJECT LANDSCAPE ARCHITECT
MCU
PROJECT TEAM MEMBERS

CHECK

LANDSCAPE ARCHITECT SEAL

TITLE
PLANT PALETTE - UNDERSTORY - VINES

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L3.03
R4S ZONING COMPLIANCE

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ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

PROPOSED PLANT PALETTE - bioretation

Cape Rush

Chondropetalum tectorum 'El Campo'

Idaho Fescue

Festuca idahoensis 'Siskiyou Blue'

Dwarf Mat Rush

Lomandra longifolia 'Breeze'

Sticky Monkey Flower

Mimulus aurantiacus

California Grey Rush

Juncus patens

Hummingbird Sage

Salvia spathacea

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

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PROJECT LANDSCAPE ARCHITECT
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LANDSCAPE ARCHITECT SEAL

TITLE
PLANT PALETTE BIORETENTION

PROJECT NO.
1526000
DATE
FEBRUARY 25, 2019

SHEET NUMBER
L3.04
R4S ZONING COMPLIANCE

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ORIGINAL SHEET SIZE 30" x 42"

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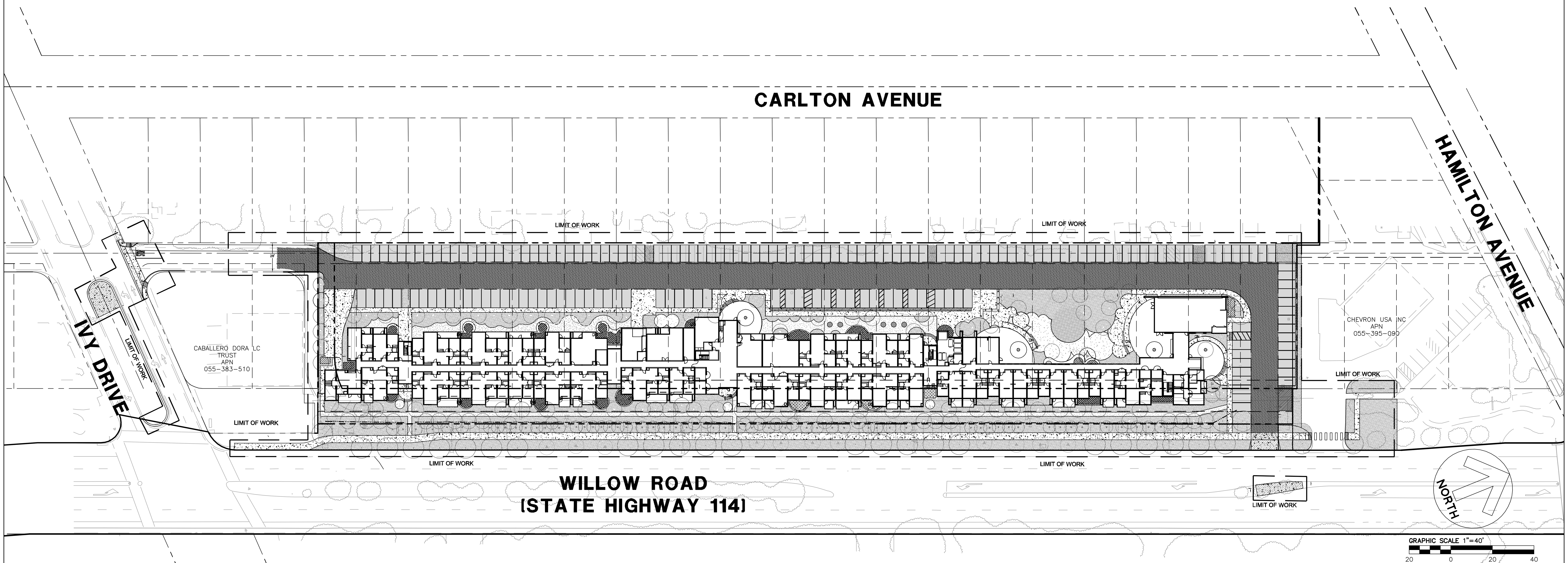
R4S ZONING COMPLIANCE

GATEWAY FAMILY HOUSING

1345 WILLOW ROAD
MENLO PARK, SAN MATEO COUNTY, CALIFORNIA



PROJECT DATA

1. OWNER/DEVELOPER: MIDPEN HOUSING
   MID–PENINSULA HOUSING COALITION
   303 VINTAGE PARK DRIVE, SUITE 250
   FOSTER CITY, CA. 94404
   CONTACT: NESREEN KAWAR
   (650) 393–3601

2. CIVIL ENGINEER: BKF ENGINEERS
   1730 N. FIRST ST. DRIVE, SUITE 600
   SAN JOSE, CA 95112
   CONTACT: COLE GAUMNITZ
   (408) 467–9100

4. PROPERTY DESCRIPTION: LOTS 1 & 2, & PORTIONS OF FRONTAGE ROAD OF BOOK 59 OF MAPS PAGE 17.

5. ASSESSORS PARCEL NO: 055–383–560, 570

6. GENERAL PLAN: R4S (AHO) – HIGH–DENSITY RESIDENTIAL DISTRICT, SPECIAL, AFFORDABLE HOUSING OVERLAY

7. EXISTING ZONING: R4S (AHO)

8. PROPOSED ZONING: R4S (AHO)

9. EXISTING USE: RESIDENTIAL

10. PROPOSED USE: RESIDENTIAL

11. GROSS AREA: 3.75± ACRES

12. NUMBER OF UNITS: 140 UNITS

13. NUMBER OF LOTS: 1

14. UTILITIES:
   A. WATER:
      PUBLIC: MENLO PARK MUNICIPAL WATER DISTRICT
      PRIVATE: MIDPEN HOUSING
   B. SANITARY SEWER: WEST BAY SANITARY DISTRICT
   C. STORM DRAIN:
      PUBLIC: CITY OF MENLO PARK
      PRIVATE: MIDPEN HOUSING
   D. GAS/ELECTRIC: PACIFIC GAS & ELECTRIC
   E. TELEPHONE: AT&T/SBC
   F. CABLE TV: COMCAST

15. BASIS OF BEARING: THE BEARING N22°05'09"E OF THE EASTERLY LINE OF WILLOW ROAD, AS SHOWN ON THIS EXHIBIT MAP IS BASED ON THE RECORD OF SURVEY 2337, FILED FOR RECORD ON JUNE 4, 2012 IN BOOK 37 OF LLS MAPS AT PAGE 28, RECORDS OF SAN MATEO COUNTY, CALIFORNIA.

16. FLOOD ZONE: THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.
   A. THE PROJECT IS BUILT IN COMPLIANCE WITH THE CITY'S FLOOD DAMAGE PREVENTION ORDINANCE, CHAPTER 12, SECTION 42.
   B. ALL MATERIALS BELOW BFE SHALL BE RESISTANT TO FLOOD DAMAGE. (I.E., CONCRETE, REDWOOD OR PRESSURE TREATED DOUGLAS FIR).
   C. THE BOTTOM ELEVATION OF ALL APPLIANCES AND UTILITIES (METERS, AIR CONDITIONING UNITS, ETC) SHALL BE AT DFE, 12" ABOVE BFE. (DFE = 12" + BFE)
   D. STORM RUNOFF RESULTING FROM THE PROJECT'S GRADING AND DRAINAGE ACTIVITIES SHALL NOT ENCROACH ONTO ANY NEIGHBORING LOT. RUNOFF MUST BE CONTAINED ON–SITE.

17. R/W VACATION: VACATION IS PENDING APPROVAL AND WILL BE RECORDED AT A LATER DATE.

SHEET INDEX

	NO.	TITLE
1	C0.0	TITLE SHEET
2	C1.01	BOUNDARY AND TOPOGRAPHIC SURVEY
3	C1.02	BOUNDARY AND TOPOGRAPHIC SURVEY
4	C2.01	DEMOLITION PLAN
5	C2.02	DEMOLTION PLAN
6	C3.01	PRELIMINARY SITE PLAN
7	C3.02	PRELIMINARY SITE PLAN
8	C3.03	PRELMINARY FIRE ACCESS PLAN
9	C3.04	PRELIMINARY FIRE ACCESS PLAN
10	C3.05	PRELIMINARY FIRE ACCESS PLAN
11	C4.01	PRELIMINARY GRADING PLAN
12	C4.02	PRELIMINARY GRADING PLAN
13	C4.03	AVERAGE GRADE
14	C5.01	PRELIMINARY STORMWATER PLAN
15	C6.01	PRELIMINARY UTILITY PLAN
16	C6.02	PRELIMINARY UTILITY PLAN
17	C7.01	CONSTRUCTION DETAILS
18	C7.02	CONSTRUCTION DETAILS
19	C7.03	CONSTRUCTION DETAILS

PROJECT DESCRIPTION

MIDPEN HOUSING CORPORATION IS REDEVELOPING THE EXISTING PROPERTY INTO AFFORDABLE APARTMENTS FOR LOW INCOME FAMILIES AND ASSOCIATED AMENITIES, INCLUDING RESIDENT SERVICE SPACES, BUILDING MANAGEMENT SPACES, LOUNGE AND COMMUNITY GATHERING SPACES, LAUNDRY ROOMS, AND AN EXERCISE ROOM.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- LOT LINES
- CALTRANS RIGHT OF WAY
- STREET CENTER LINE
- EASEMENT LINE

ABBREVIATIONS

BFE	=	BASE FLOOD ELEVATION
D	=	DELTA ANGLE
DFE	=	DESIGN FLOOD ELEVATION
E	=	EAST
EVAE	=	EMERGENCY VEHICLE ACCESS EASEMENT
L	=	LENGTH
MAE	=	MAINTENANCE ACCESS EASEMENT
N	=	NORTH
O.R.	=	OFFICIAL RECORD
PAE	=	PUBLIC ACCESS EASEMENT
PM	=	PARCEL MAP
PUE	=	PUBLIC UTILITY EASEMENT
R	=	RADIUS
R/W	=	RIGHT–OF–WAY
ROS	=	RECORD OF SURVEY
RTE	=	ROUTE
S	=	SOUTH
S.E.	=	SIDEWALK EASEMENT
W	=	WEST

ENGINEER'S STATEMENT

THIS R4S ZONING COMPLIANCE RESUBMITTAL HAS BEEN PREPARED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE.

2/25/2019
COLE GAUMNITZ, P.E. DATE
BKF ENGINEERS
R.C.E. NO. 75787

REGISTERED PROFESSIONAL ENGINEER
FRITZ COLE GAUMNITZ
75787
CIVIL
STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

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SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
www.bkf.com

PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
TITLE SHEET
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C0.00

ORIGINAL SHEET SIZE 30" x 42"

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LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- LOT LINES
- CALTRANS RIGHT OF WAY
- STREET CENTER LINE
- EASEMENT LINE
- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- FO — EXISTING FIBER OPTIC LINE
- SL — EXISTING STREET LIGHT LINE
- COMM — EXISTING COMMUNICATIONS LINE

BENCHMARK

A FOUND BRONZE DISK SET IN THE TOP OF A CONCRETE CURB AT THE EASTERLY CURB RETURN OF THE SOUTHERLY CURB LINE OF CONSTITUTION DRIVE, EASTERLY OF JEFFERSON DRIVE (CITY OF MENLO PARK BM#2)

ELEVATION = 7.50 FEET
DATUM = NAVD88

A VERTICAL SHIFT OF +2.70 FEET WAS APPLIED TO THE RECORD ELEVATION OF CITY OF MENLO PARK BM#2 IN ORDER TO CONVERT FROM NGVD29 TO NAVD88

SURVEY STATEMENT

I CERTIFY THAT THIS PARCEL'S BOUNDARY WAS ESTABLISHED BY ME OR UNDER MY SUPERVISION AND IS BASED ON A FIELD SURVEY IN CONFORMANCE WITH THE LAND SURVEYOR'S ACT. ALL MONUMNETS ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED ARE SUFFICIENT AND ENABLE THE SURVEY TO BE RETRACED.

JOHN KOROYAN, P.L.S DATE
BKF ENGINEERS
P.L.S. NO 8883

REGISTERED PROFESSIONAL SURVEYOR JOHN KOROYAN No. 8883 STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 30" x 42"

DRAWING NAME: K:\2015\15415A_1300_Willow_Rd_Gateway_Family\END\PLANNING\SHEETS\PHS\21-1300M-PHSEXCO.dwg
PLOT TIME: 02/25/19
PLOTTED BY: jerre

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PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
-
CHECK
ENGINEER SEAL

TITLE
BOUNDARY AND TOPOGRAPHIC SURVEY
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C1.01

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MATCHLINE - SEE SHEET C1.01

15 16 17 18 19 20 21 22 23 25

PARCEL 1
59 PM 52

PARCEL 1
71 PM 15-16

HAMILTON AVENUE

1.20' PER
O.R. 98-222813

WALL HEIGHT 5'10"

WALL HEIGHT 2.10'

14' S.S.E. PER
71 PM 15-16

22.08'
N22°04'54"E

20' CITY OF MENLO PARK P.U.E.
PER PARCEL 3, O.R. 86-052876

N22°04'54"E

PARCEL 2
59 PM 17

LANDS OF MENLO
GATEWAY, INC., PER
O.R. 98-222813
APN: 055-383-570

50' 50' 50' 50' 50' 50' 50' 50' 50' 50'

APN: 055-383-560

NEWBRIDGE PARK, BLOCK 8, 14 MAPS 6 & 7

38 37 36 35 34 33 32 31 30 29 28 27 26

EXISTING LOT AREA
0.14 ACRE

N67°58'13"W 138.11'

WALL HEIGHT 5'6"

CHEVRON USA INC
APN
055-395-090

PARCEL 1
71 PM 15-16

8' CITY OF MENLO PARK
S.E. & P.U.E.
O.R. 90-097195

2" x 10' STATE OF CALIFORNIA
ANCHOR EASEMENT
RE. 7961 IM. 1757

4.20'

FULL OF DEBRIS

ASSUMED LINE

N22° 05' 09"E 917.90'

59.26'

CITY OF MENLO PARK
PUBLIC UTILITY & ACCESS EASEMENT
O.R. 98-144569

5'± HIGH WALL WITH 2' IRON TOP

BOLLARDS

ELECTROLIER

WILLOW ROAD

FOUND 2" BRASS DISK WITH PUNCH MARK, SET IN CONCRETE INSIDE ROUND MONUMENT WELL, STAMPED "CA. DEPT. OF TRANS. X601", PER CALIFORNIA STATE DEPT. OF TRANSPORTATION HIGHWAY MAP, RTE. 84, P.M. 27.6 DR. "R-1054a" AND ROS NO. 2337, 36 LLS 25-30

WILLOW ROAD

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- LOT LINES
- CALTRANS RIGHT OF WAY
- STREET CENTER LINE
- EASEMENT LINE
- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- FO — EXISTING FIBER OPTIC LINE
- SL — EXISTING STREET LIGHT LINE
- COMM — EXISTING COMMUNICATIONS LINE

NORTH

GRAPHIC SCALE SCALE: 1"=20'
20 0 20 40

BENCHMARK

A FOUND BRONZE DISK SET IN THE TOP OF A CONCRETE CURB AT THE EASTERLY CURB RETURN OF THE SOUTHERLY CURB LINE OF CONSTITUTION DRIVE, EASTERLY OF JEFFERSON DRIVE (CITY OF MENLO PARK BM#2)

ELEVATION = 7.50 FEET
DATUM = NAVD88

A VERTICAL SHIFT OF +2.70 FEET WAS APPLIED TO THE RECORD ELEVATION OF CITY OF MENLO PARK BM#2 IN ORDER TO CONVERT FROM NGVD29 TO NAVD88

SURVEY STATEMENT

I CERTIFY THAT THIS PARCEL'S BOUNDARY WAS ESTABLISHED BY ME OR UNDER MY SUPERVISION AND IS BASED ON A FIELD SURVEY IN CONFORMANCE WITH THE LAND SURVEYOR'S ACT. ALL MONUMNETS ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED ARE SUFFICIENT AND ENABLE THE SURVEY TO BE RETRACED.

JOHN KOROYAN, P.L.S DATE
BKF ENGINEERS
P.L.S. NO 8883

REGISTERED PROFESSIONAL SURVEYOR
JOHN KOROYAN
No. 8883
STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 36" x 42"

DRAWING NAME: K:\2015\156154_1300_Willow_Rd_Gateway_Fam\ENG\PLANNING\SHEETS\PHS\21-1300M-RASEXSD.dwg
PLOT TIME: 02-25-19
PLOTTED BY: pete

MITHUN
SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344
SAN FRANCISCO / 660 Market Street, #300
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PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
BOUNDARY AND TOPOGRAPHIC SURVEY
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C1.02

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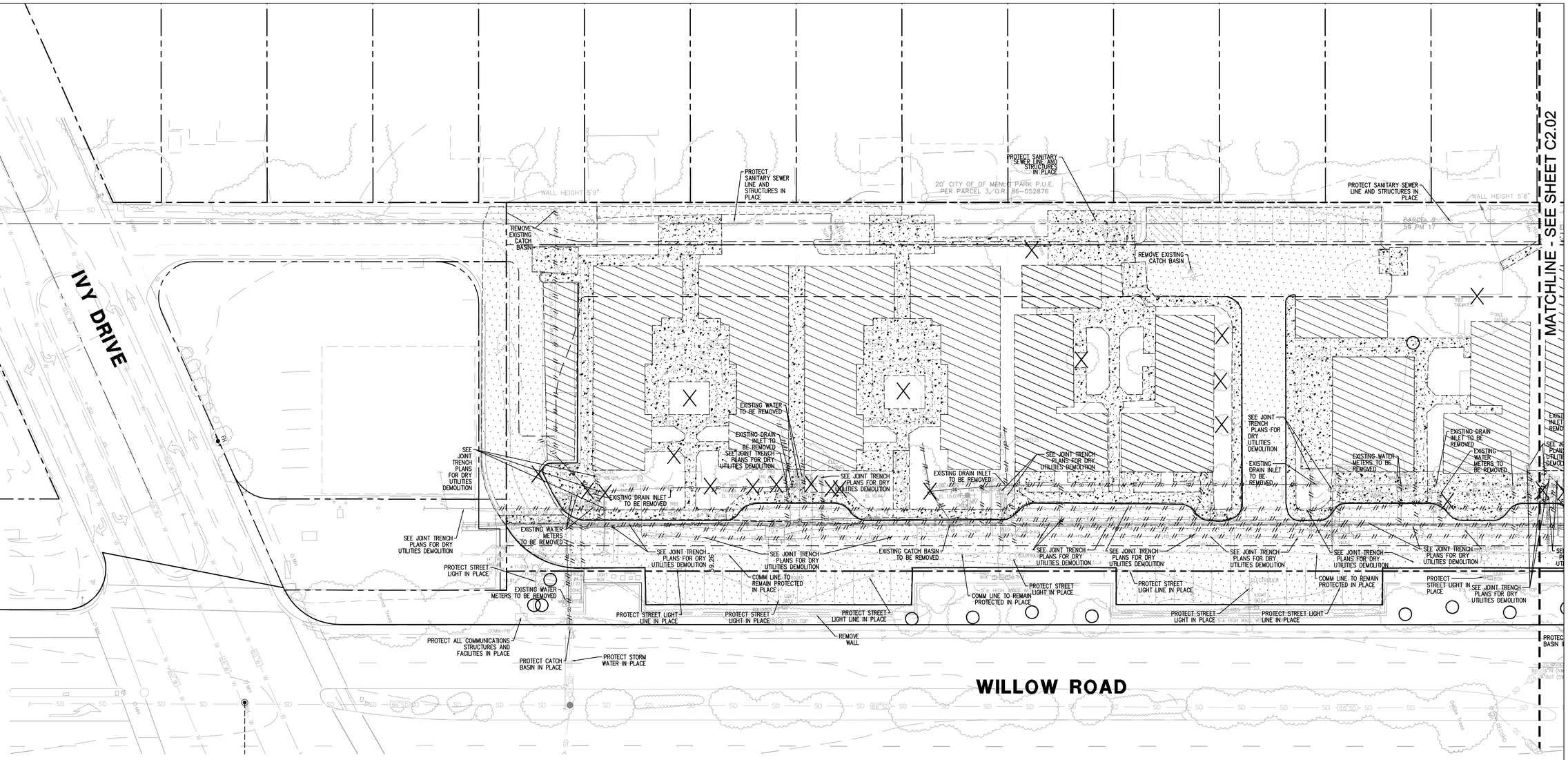

DEMOLITION KEY NOTES

SHEET NOTES

1. ALL EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR TO WALK THROUGH AND SURVEY EXISTING UTILITIES, INCLUDING POTHOLING ALL CROSSINGS AND RELEVANT LOCATIONS PRIOR TO REMOVAL OF EXISTING IMPROVEMENTS AND UTILITY LINES.
2. ALL ON-SITE UTILITIES SHALL BE REMOVED AND CAPPED AT PROPERTY LINE UNLESS OTHERWISE NOTED.
3. ALL EXISTING WATER METERS ARE TO BE REMOVED AND DELIVERED TO THE CITY FOR FINAL READING.
4. THIS PROJECT MUST COMPLY WITH THE CITY'S CONSTRUCTION AND DEMOLITION ORDINANCE.
5. CONTRACTOR SHALL REMOVE ALL IRRIGATION LINES AND APPURTENANCES, WHETHER INDICATED ON THIS PLAN OR NOT. MAINTAIN EXISTING OR PROVIDE TEMPORARY IRRIGATION FOR PLANTING/TREES TO REMAIN.
6. ITEMS SHOWN TO BE REMOVED OR ABANDONED ARE INDICATED PER INFORMATION AVAILABLE TO THE ENGINEER. THE PRESENCE OF ANY ADDITIONAL UTILITIES NOT SHOWN ON THIS PLAN SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION AND INCLUDED IN THE BASE CONTRACT PRICE.
7. CONTRACTOR SHALL COORDINATE WITH COMCAST AND AT&T TO DISCONNECT AND REMOVE EXISTING CABLE TELEVISION SERVICE(s) AND TELEPHONE SERVICE(S).
8. CONTRACTOR SHALL CLEAR, GRUB AND REMOVE ALL EXISTING VEGETATION AND TOP SOIL FROM LANDSCAPED AREA. TOP SOIL MAY BE STOCKPILED FOR LATER USE IN LANDSCAPE AREAS UPON APPROVAL.
9. ALL PRIVATE LIGHT CONDUIT TO BE REMOVED BY CONTRACTOR.
10. ALL EXISTING STORM DRAIN AND WASTE WATER SERVICES THAT WILL NOT BE REUSED SHALL BE ABANDONED AT THE MAIN PER CITY STANDARD PROCEDURES BEFORE ANY NEW UTILITY SERVICES ARE INSTALLED.
11. TREE REMOVAL AND TREE PROTECTION OF TREES ARE SHOWN FOR REFERENCE ONLY. PLEASE SEE LANDSCAPE FOR PLAN TREE PROTECTION AND REMOVAL

LEGEND

- PROJECT'S PROPERTY LINE
- REMOVE/ABANDON EX. UTILITY
- CAP AND PLUG EX. UTILITY
- REMOVE CURB/CURB & GUTTER
- REMOVE CONCRETE AND BASEROCK
- REMOVE EX. BUILDING AND FOUNDATIONS. REMOVE ALL UTILITY STRUCTURES TO MAIN AND CAP OR SAFE OFF.
- REMOVE EX. AC PAVEMENT AND BASEROCK
- TREES TO BE PROTECTED
- TREES AND ASSOCIATED ROOTBALLS TO BE REMOVED
- W — EXISTING WATER LINE
- SS — EXISTING SANITARY SEWER LINE
- SD — EXISTING STORM DRAIN LINE
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TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

ORIGINAL SHEET SIZE 36" x 42"

NOT FOR CONSTRUCTION

DRAWING NAME: K:\20155\156154_1300_Willow_Rd_Gateway_Family\END\PLANNING\SHEETS\PAD\20-1300M-R4SDEMO.dwg
PLOT TIME: 03-25-19
PLOTTED BY: pr1a

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PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

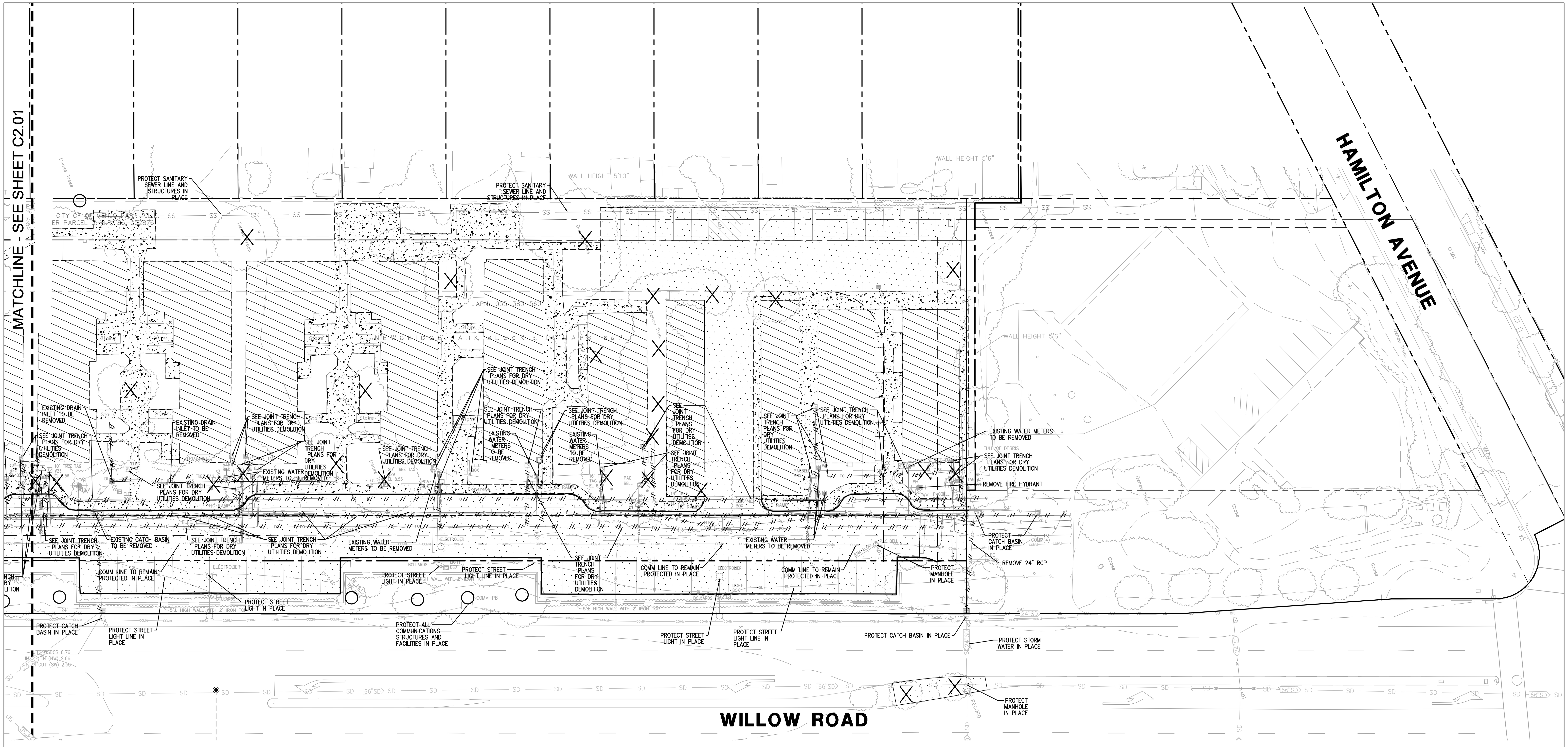
PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
DEMOLITION PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C2.01



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LEGEND

Symbol	Description	Symbol	Description
— — —	PROJECT'S PROPERTY LINE	W	EXISTING WATER LINE
// // //	REMOVE/ABANDON EX. UTILITY	SS	EXISTING SANITARY SEWER LINE
⌴	CAP AND PLUG EX. UTILITY	SD	EXISTING STORM DRAIN LINE
——	REMOVE CURB/CURB & GUTTER	E	EXISTING ELECTRIC LINE
	REMOVE CONCRETE AND BASEROCK	G	EXISTING GAS LINE
	REMOVE EX. BUILDING AND FOUNDATIONS. REMOVE ALL UTILITY STRUCTURES TO MAIN AND CAP OR SAFE OFF.	FO	EXISTING FIBER OPTIC LINE
	REMOVE EX. AC PAVEMENT AND BASEROCK	SL	EXISTING STREET LIGHT LINE
○	TREES TO BE PROTECTED	COMM	EXISTING COMMUNICATIONS LINE
X	TREES AND ASSOCIATED ROOTBALLS TO BE REMOVED		

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

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PROJECT

GATEWAY FAMILY HOUSING

LOCATION

1345 WILLOW ROAD

MENLO PARK, CA

PREPARED FOR

MIDPEN HOUSING

MidPen HOUSING

SUBMISSION

R45 ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL

JACOB NGUYEN

PROJECT MANAGER

COLE GAUMNITZ

PROJECT ENGINEER

PROJECT TEAM MEMBERS

CHECK

ENGINEER SEAL

TITLE

DEMOLTION PLAN

PROJECT NO.

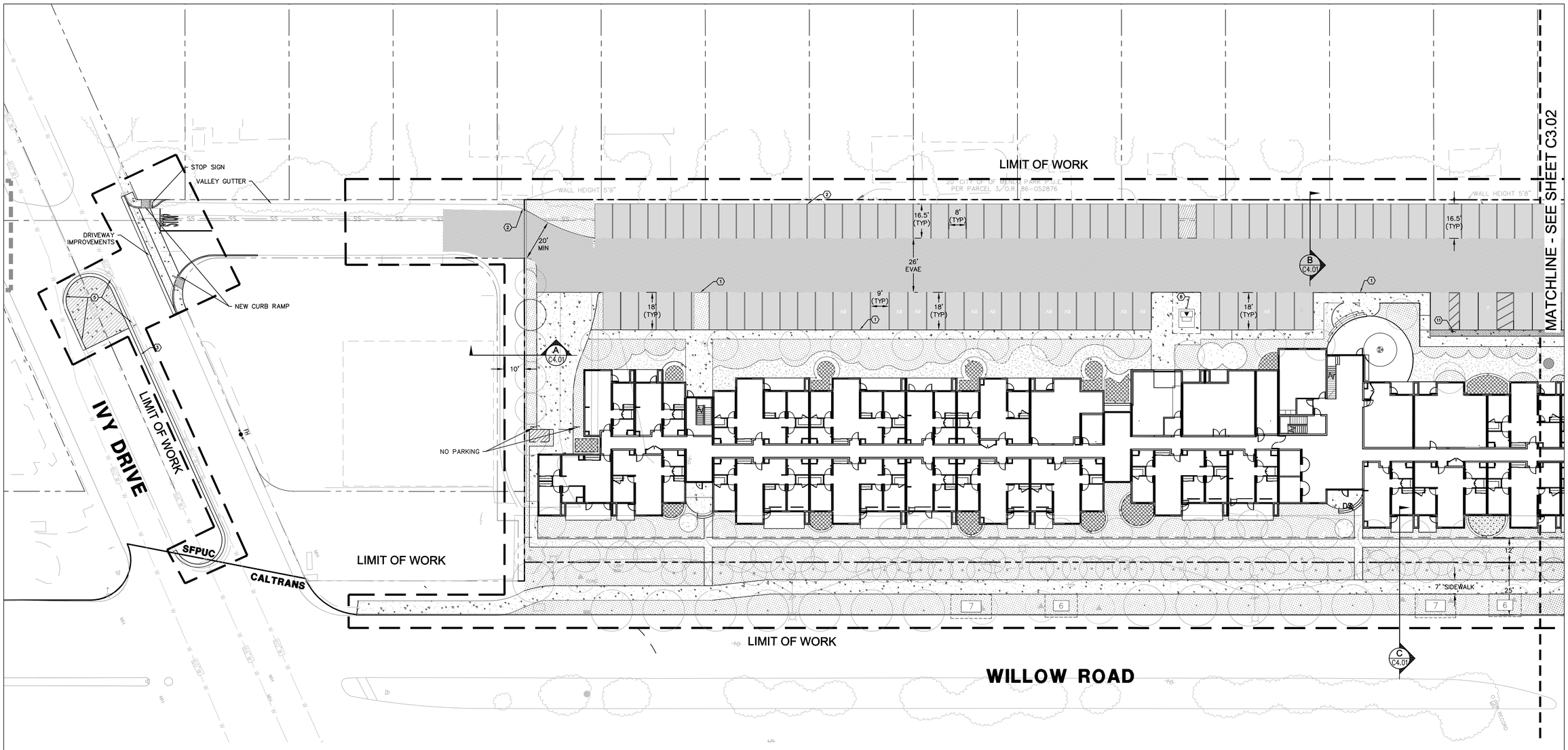
20156154

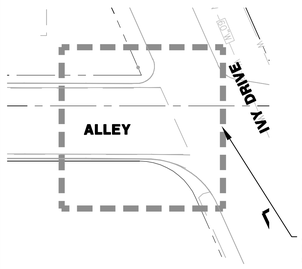
DATE

FEBRUARY 22, 2019

SHEET NUMBER

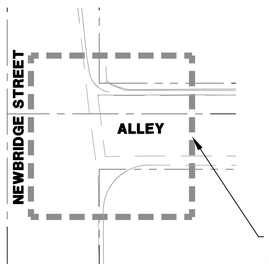
C2.02





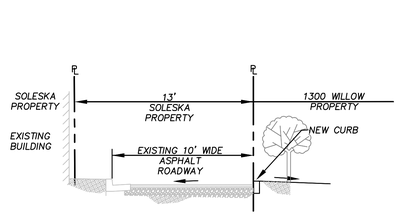
ALLEY AND IVY DRIVE NEW DRIVEWAY

ALLEY INTERSECTION IMPROVEMENTS AT EITHER END OF 1200 BLOCK AT HAMILTON & IVY SUGGESTED BY THE CITY. CITY & PROJECT TEAM TO COORDINATE ON CONSTRUCTION & FINANCING LOGISTICS.

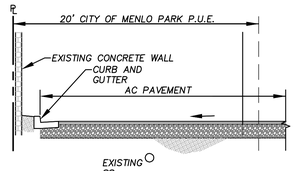


ALLEY AND NEWBRIDGE STREET NEW DRIVEWAY

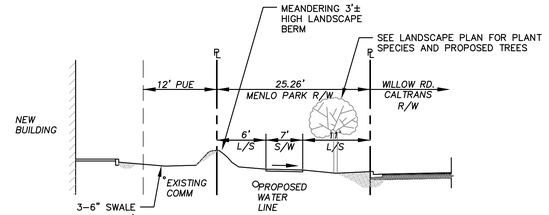
ALLEY INTERSECTION IMPROVEMENTS AT EITHER END OF 1200 BLOCK AT HAMILTON & IVY SUGGESTED BY THE CITY. CITY & PROJECT TEAM TO COORDINATE ON CONSTRUCTION & FINANCING LOGISTICS.



SECTION A
N.T.S.



SECTION B
N.T.S.



SECTION C
N.T.S.

CONSTRUCTION KEY NOTES

1. 6" VERTICAL CURB PER DETAIL 1, SHEET C7.01.
2. 6" VERTICAL CURB AND GUTTER PER DETAIL 2, SHEET C7.01.
3. CONSTRUCT CUT-THROUGH MEDIAN FOR EMERGENCY ACCESS VEHICLES
4. ADA CURB RAMP PER DETAIL 12, SHEET C7.01.
5. CONSTRUCT ROLLED CURB
6. SILVA CELL, OR APPROVED EQUAL. SEE DETAIL PER DETAIL 1, SHEET C7.03.
7. WOOD DECK, SEE LANDSCAPE PLAN
8. PROPOSED TRANSFORMER AREA, SEE JOINT TRENCH PLAN.
9. NEW DRIVEWAY PER DETAIL CG-14 PER C7.03
10. NOT USED
11. DETECTABLE WARNING SURFACE PER DETAIL 12, SHEET C7.01

SHEET NOTES

1. SEE LANDSCAPE PLANS FOR ALL FENCE, GATE, AND PLANTER WALL DETAILS. SEE LANDSCAPE PLANS FOR ALL PLANTING INFORMATION.
2. UNLESS OTHERWISE SPECIFIED, ALL STANDARD PARKING STALLS ARE 8.5'x16.5' PER MENLO PARK STANDARD DETAIL T-1.

ABBREVIATIONS

EVAE	EMERGENCY VEHICLE ACCESS EASEMENT
R	RADIUS
R/W	RIGHT OF WAY
SFPUC	SAN FRANCISCO PUBLIC UTILITIES COMMISSION

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- CURB AND GUTTER PER DETAIL 2, SHEET C7.01.
- 6" VERTICAL CURB PER DETAIL 1, SHEET C7.01.
- SAWCUT LINE
- FLOW THROUGH PLANTER PER DETAIL 7, SHEET C7.02
- AC PAVEMENT PER DETAIL 5, SHEET C7.01.
- AC PAVEMENT IN FIRE LANE PER DETAIL 6, SHEET 7.01.
- PEDESTRIAN CONCRETE PER DETAIL 7, SHEET C7.01.
- CONCRETE SECTION FIRE LANE PER DETAIL 8, SHEET C7.01.
- BIORETENTION BASIN
- LANDSCAPING, SEE LANDSCAPE PLAN FOR DETAILS.
- DECOMPOSED GRANITE, SEE LANDSCAPE PLAN FOR DETAILS.

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

ORIGINAL SHEET SIZE 30" x 42"

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KEYMAP

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R4S ZONING COMPLIANCE RESUBMITTAL

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PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
-
PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
PRELIMINARY SITE PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C3.01

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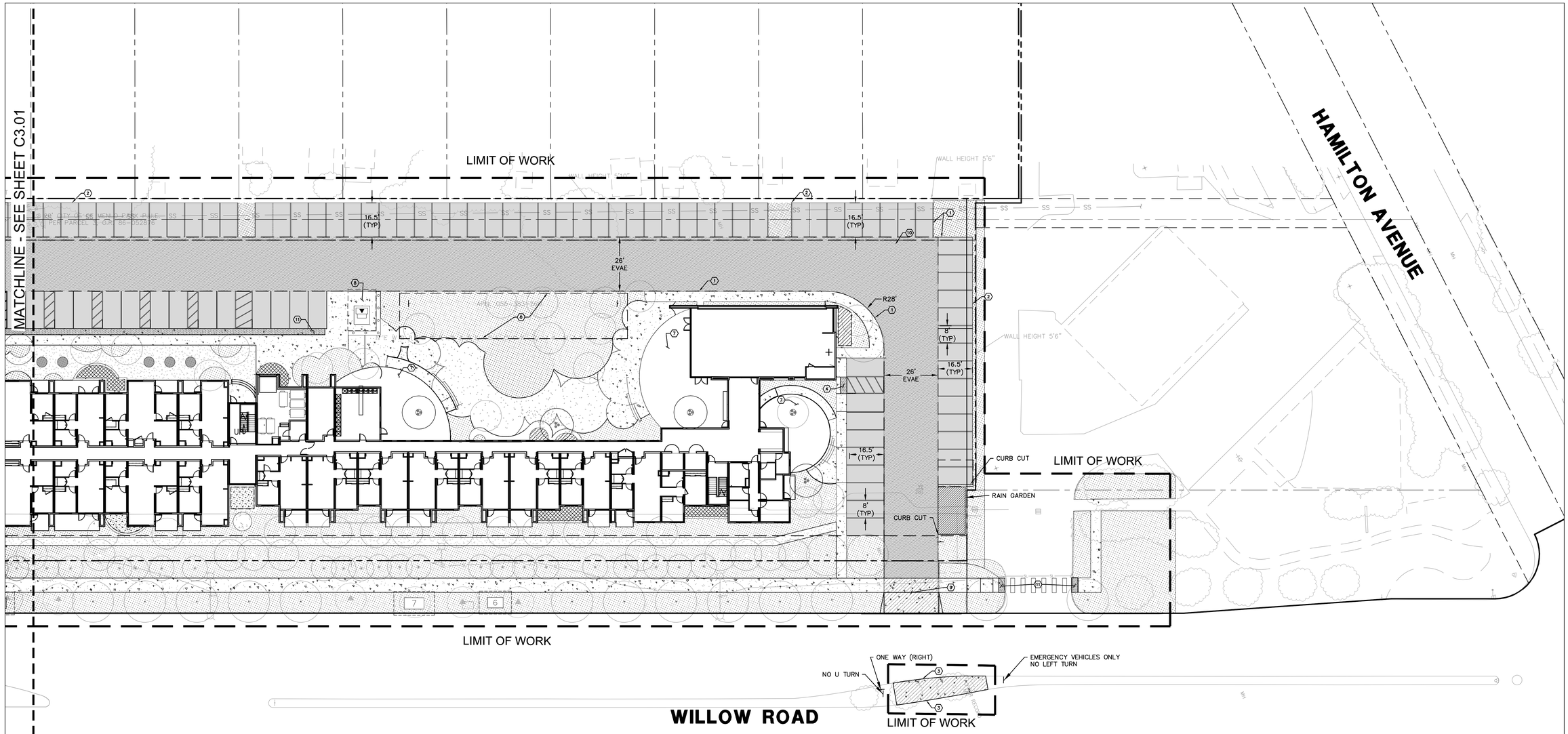
DRAWING NAME: K:\20215\20156154_1300_Willow_Rd_Gateway_Family\CAD\PLANSET\SHEETS\A20-1300W-RASSITEPLN.dwg
PLOT DATE: 02-20-19
PLOTTED BY: pr14



CONSTRUCTION KEY NOTES

1. 6" VERTICAL CURB PER DETAIL 1, SHEET C7.01.
2. 6" VERTICAL CURB AND GUTTER PER DETAIL 2, SHEET C7.01.
3. CONSTRUCT CUT–THROUGH MEDIAN FOR EMERGENCY ACCESS VEHICLES
4. ADA CURB RAMP PER DETAIL 12, SHEET C7.01.
5. CONSTRUCT ROLLED CURB
6. SILVA CELL, OR APPROVED EQUAL. SEE DETAIL PER DETAIL 1, SHEET C7.03.
7. WOOD DECK, SEE LANDSCAPE PLAN
8. PROPOSED TRANSFORMER AREA, SEE JOINT TRENCH PLAN.
9. NEW DRIVEWAY PER DETAIL CG–14 PER C7.03
10. NOT USED
11. DETECTABLE WARNING SURFACE PER DETAIL 12, SHEET C7.01

SHEET NOTES

1. SEE LANDSCAPE PLANS FOR ALL FENCE, GATE, AND PLANTER WALL DETAILS. SEE LANDSCAPE PLANS FOR ALL PLANTING INFORMATION.
2. UNLESS OTHERWISE SPECIFIED, ALL STANDARD PARKING STALLS ARE 8.5'x16.5' PER MENLO PARK STANDARD DETAIL T–1.

ABBREVIATIONS

EVAE	EMERGENCY VEHICLE ACCESS EASEMENT
R	RADIUS
R/W	RIGHT OF WAY
SFPUC	SAN FRANCISCO PUBLIC UTILITIES COMMISSION

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- CURB AND GUTTER PER DETAIL 2, SHEET C7.01.
- 6" VERTICAL CURB PER DETAIL 1, SHEET C7.01.
- SAWCUT LINE
- FLOW THROUGH PLANTER PER DETAIL 7, SHEET C7.02
- AC PAVEMENT PER DETAIL 5, SHEET C7.01.
- AC PAVEMENT IN FIRE LANE PER DETAIL 6, SHEET 7.01.
- PEDESTRIAN CONCRETE PER DETAIL 7, SHEET C7.01.
- CONCRETE SECTION FIRE LANE PER DETAIL 8, SHEET C7.01.
- BIORETENTION BASIN
- LANDSCAPING, SEE LANDSCAPE PLAN FOR DETAILS.
- DECOMPOSED GRANITE, SEE LANDSCAPE PLAN FOR DETAILS.

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

NOT FOR CONSTRUCTION

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PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
PRELIMINARY SITE PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C3.02

ORIGINAL SHEET SIZE 30" x 42"

DRAWING NAME: E:\2015\20156154_1300_Willow_Rd_Gateway_Fam\CAD\PLANNING\SHEETS\R4S\C3-1300M-R4SSITEPLN.dwg
PLOT TIME: 02-25-19
PLOTTED BY: pr1a

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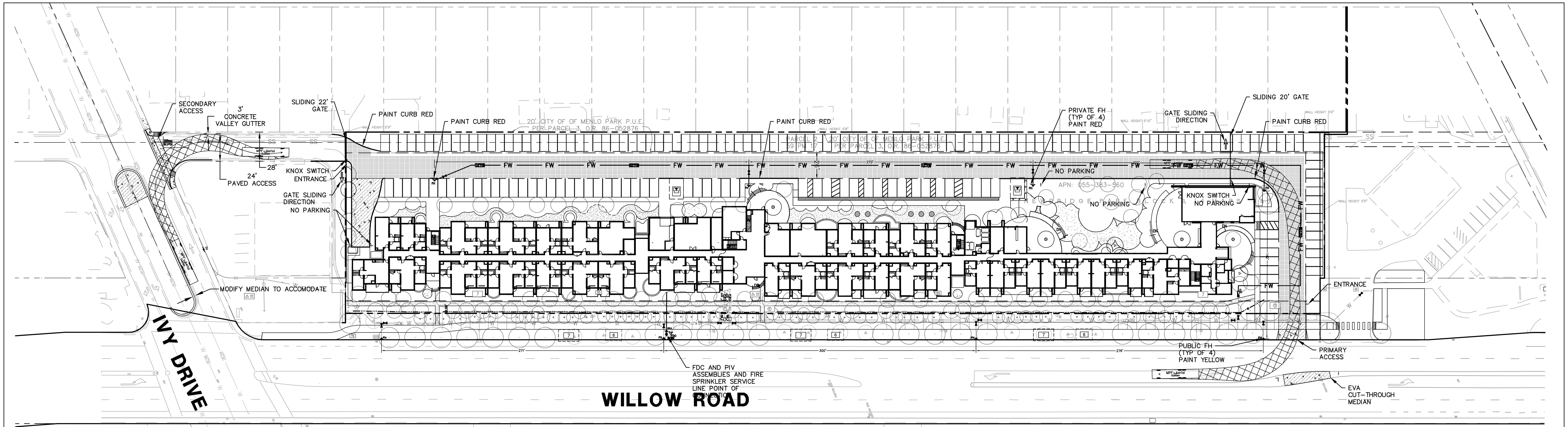
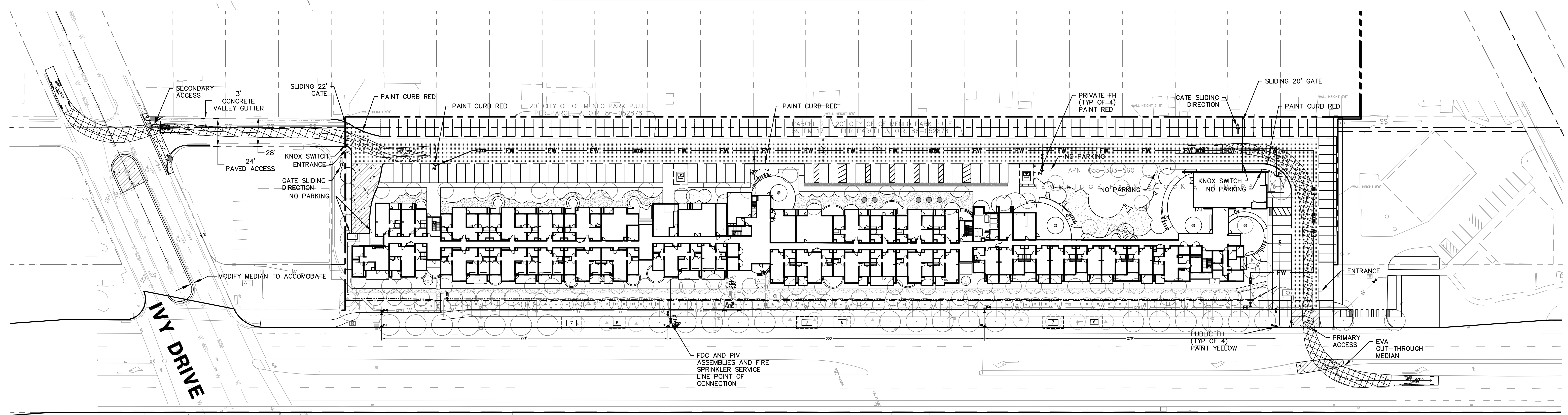


FIRE ACCESS INGRESS - IVY DRIVE



FIRE ACCESS INGRESS - IVY DRIVE

CONSTRUCTION KEY NOTES

1. KNOX OVERRIDE KEY SWITCH

SHEET NOTES

1. FIRE APPARATUS ROADWAYS SHALL BE CAPABLE OF SUPPORTING THE IMPOSED WEIGHT OF A 75,000 POUND FIRE APPARATUS AND SHALL BE PROVIDED WITH AN ALL WEATHER DRIVING SURFACE. ONLY PAVED OR CONCRETE SURFACES ARE CONSIDERED TO BE ALL WEATHER DRIVING SURFACES. CALIFORNIA FIRE CODE (CFC) 2013, APPENDIX D.
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- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- PAINT CURB RED "NO PARKING FIRE LANE"
- KNOX KEY OVERRIDE SWITCH
- AC PAVEMENT IN FIRE LANE PER DETAIL 6, SHEET C7.01
- VEHICULAR CONCRETE PER DETAIL 8, SHEET C7.01.

TRUE NORTH

NORTH

GRAPHIC SCALE

40 0 40 80

SCALE: 1"=40'

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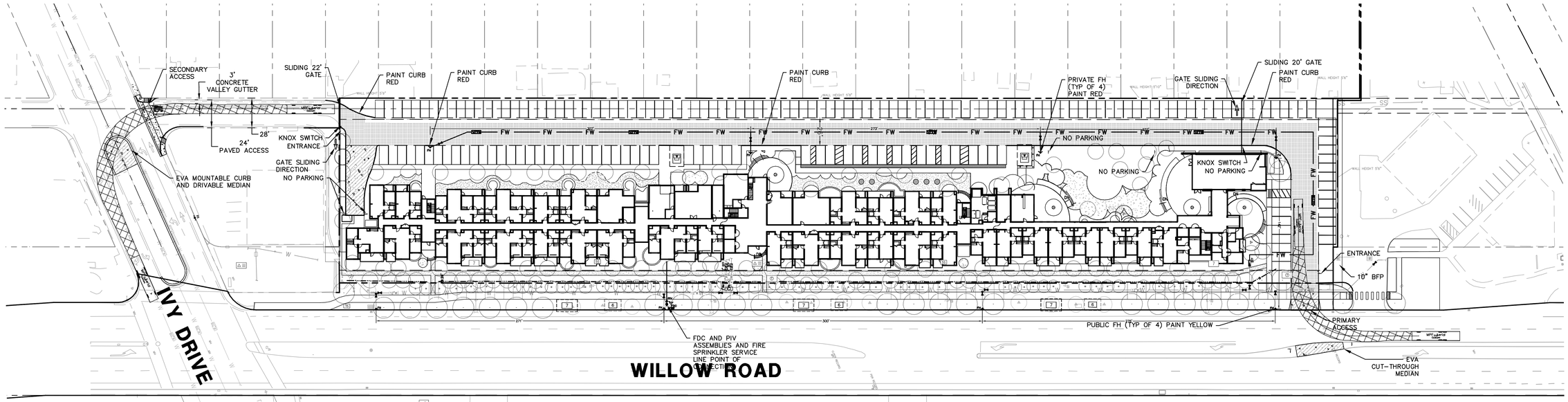
R4S ZONING COMPLIANCE RESUBMITTAL

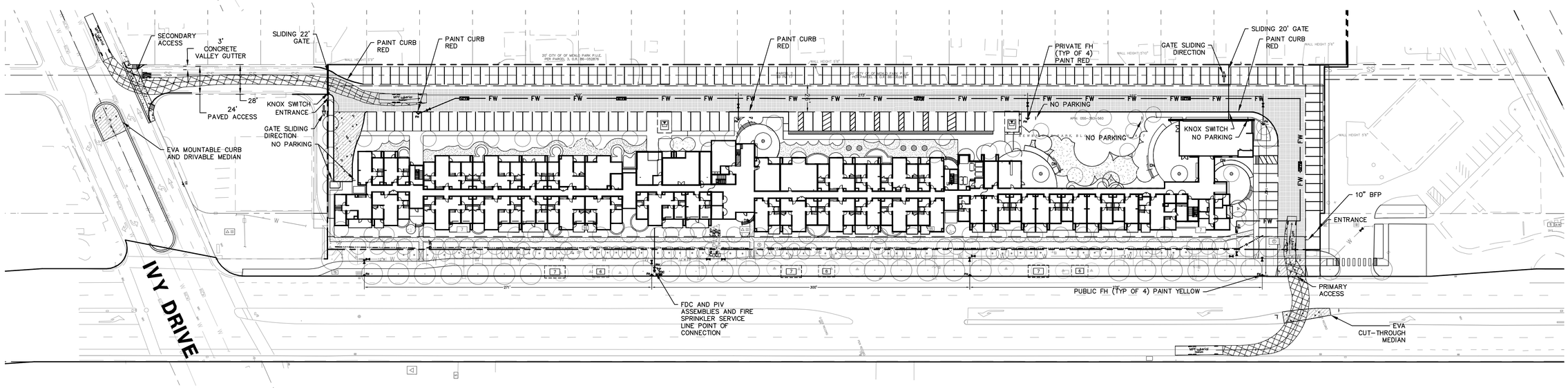
PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

TITLE
PRELMINARY FIRE ACCESS PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C3.03

NOT FOR CONSTRUCTION



FIRE ACCESS INGRESS - WILLOW ROAD



FIRE ACCESS INGRESS - WILLOW ROAD

CONSTRUCTION KEY NOTES

① KNOX OVERRIDE KEY SWITCH

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- AC PAVEMENT IN FIRE LANE PER DETAIL 6, SHEET C7.01
- VEHICULAR CONCRETE PER DETAIL 8, SHEET C7.01.

TRUE NORTH

NORTH

GRAPHIC SCALE

40 0 40 80

SCALE: 1"=40'

ORIGINAL SHEET SIZE: 30" x 42"

NOT FOR CONSTRUCTION

DRAWING NAME: K:\20153\156154_1300_Willow_Rd_Gateway_Family\ENG\PLANNING\SHEETS\PHD\C4-1300W-R4SFIRE.dwg
PLOT TIME: 02/20/19
PLOTTED BY: pyle

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KEYMAP

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R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
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COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
PRELIMINARY FIRE ACCESS PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C3.04

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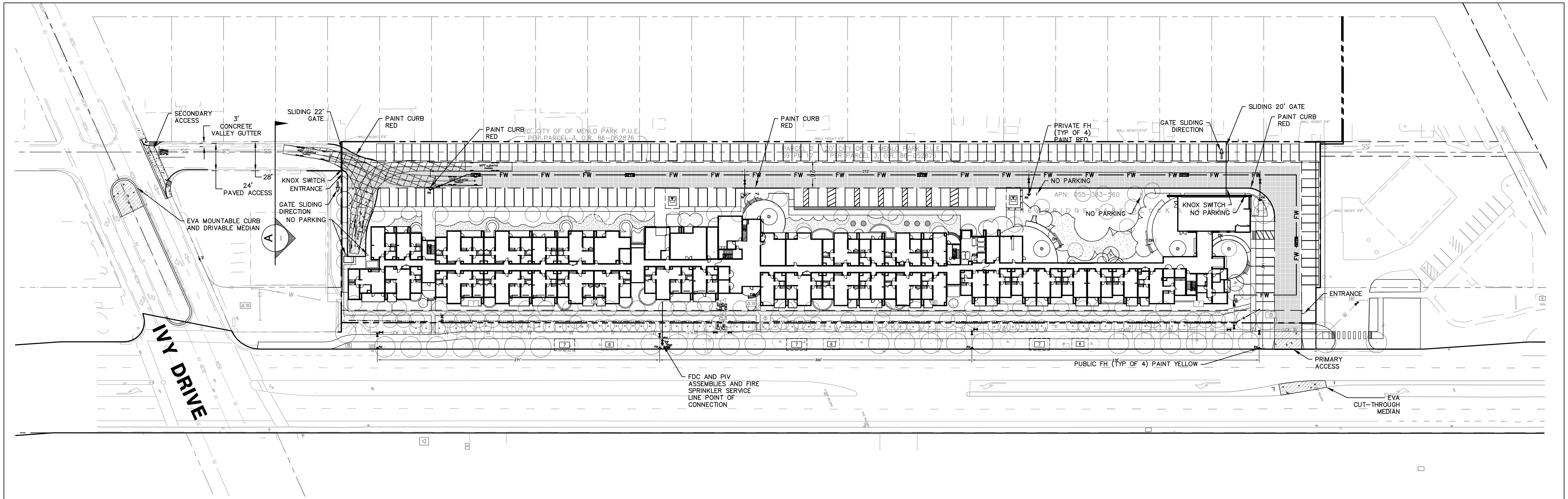
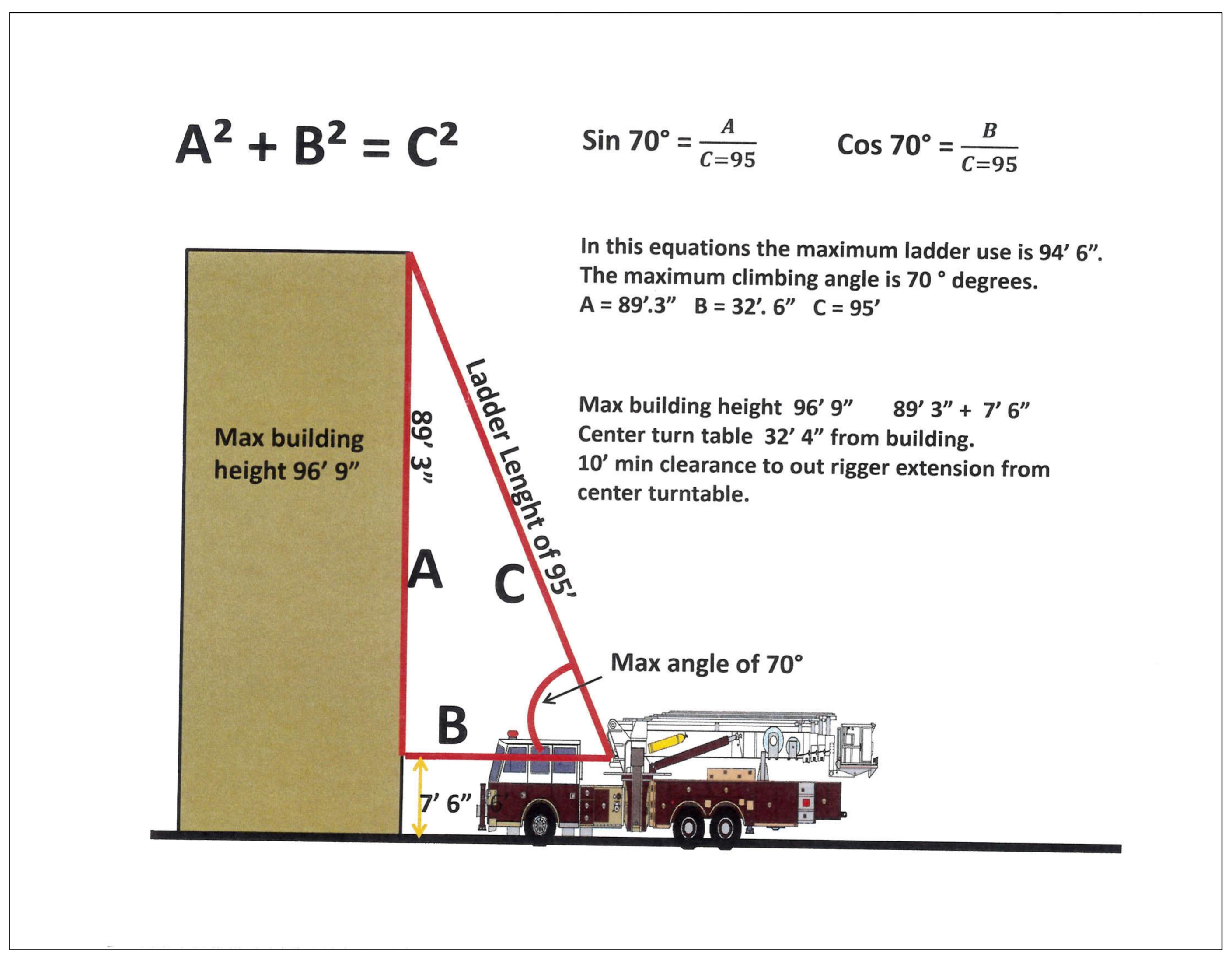
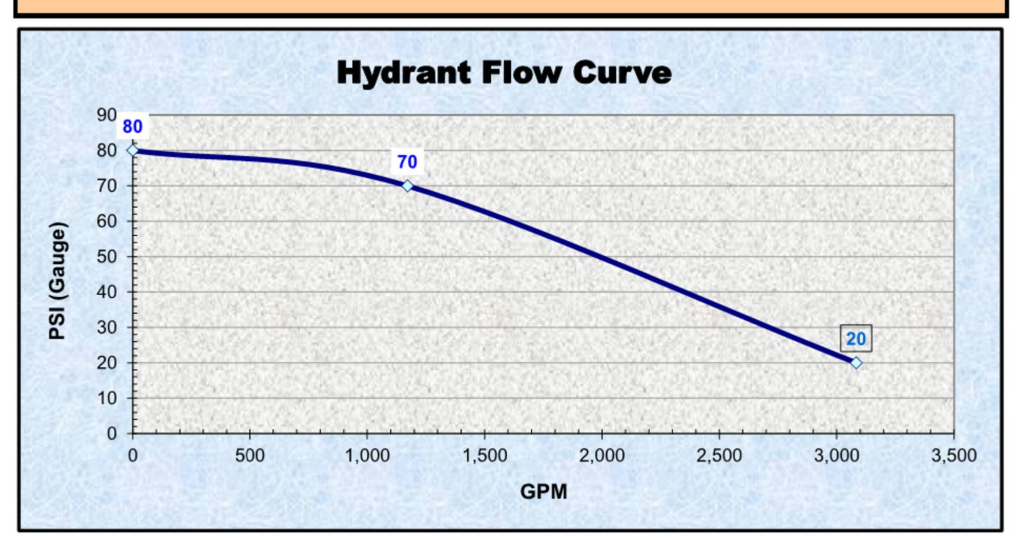




Fire Flow Test Report

City of Menlo Park - Fire Flow Test Data					
Test Crew Names	J.L, D.A., D.K>	Test Date	04/16/18		
Address	1345 Willow Rd.	Zone	Lower		
Residual Hydrant Location: 1329 Willow Rd.		Hydrant No.	B52pg.H7	Static	80 PSI
				Residual	70 PSI
Flow Hydrant #1 Location: 1349 Willow Rd.		Hydrant No.	B51pg.H7	Pitot	51 PSI
				coefficient	0.9
				Flow	1,172 GPM
Flow Hydrant #2 Location		Hydrant No.		Pitot	PSI
				coefficient	
				Flow	GPM
Flow Hydrant #3 Location		Hydrant No.		Pitot	PSI
				coefficient	
				Flow	GPM
				Total Flow	1,172 GPM
Fire Flow Test Calculator				Calculated Flow @ 20 PSI	3,083 GPM



PRELIMINARY FIRE FLOW CALCS.

BASED ON THE 2016 CALIFORNIA FIRE CODE

APPENDIX B
FLOW REQUIREMENTS

CONSTRUCTION TYPE V-A, SPRINKLERED

GFA

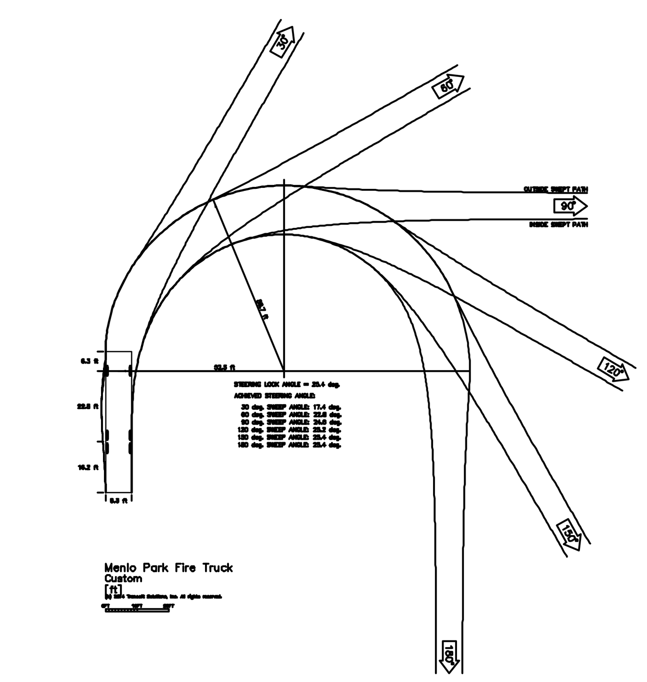
TOTAL 168,653 SF

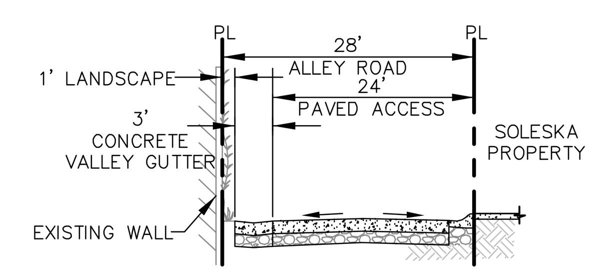
PER TABLE B105.1 THE REQUIRED FLOW = 7,500 GPM WITH THE 50% REDUCTION PER EXCEPTION B105.2.1 THE REQUIRED FLOW IS REDUCED TO 3,750 GPM FOR A 2 HOUR DURATION.

APPENDIX C
FIRE HYDRANT REQUIREMENTS

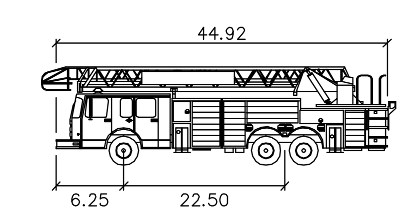
USING THE FLOW REQUIREMENTS OF 3,750 GPM IN TABLE C105.1 THE REQUIRED MINIMUM NUMBER OF HYDRANTS IS 4 WITH AVERAGE SPACING OF 300 FEET.

AVERAGE HYDRANT SPACING
276.2+300.3+271.4+288.5+284.4+224.6+142=
1,787.4/8 =223.43 FEET





A ALLEY ROAD SECTION
NTS



MPF-Aerial

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 25.4

CONSTRUCTION KEY NOTES

1. KNOX OVERRIDE KEY SWITCH

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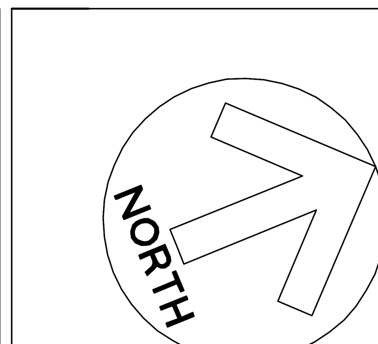
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- PAINT CURB RED "NO PARKING FIRE LANE"
- KNOX KEY OVERRIDE SWITCH
- AC PAVEMENT IN FIRE LANE PER DETAIL 6, SHEET C7.01
- VEHICULAR CONCRETE PER DETAIL 8, SHEET C7.01.

TRUE NORTH



GRAPHIC SCALE

40 0 40 80
SCALE: 1"=40'

PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

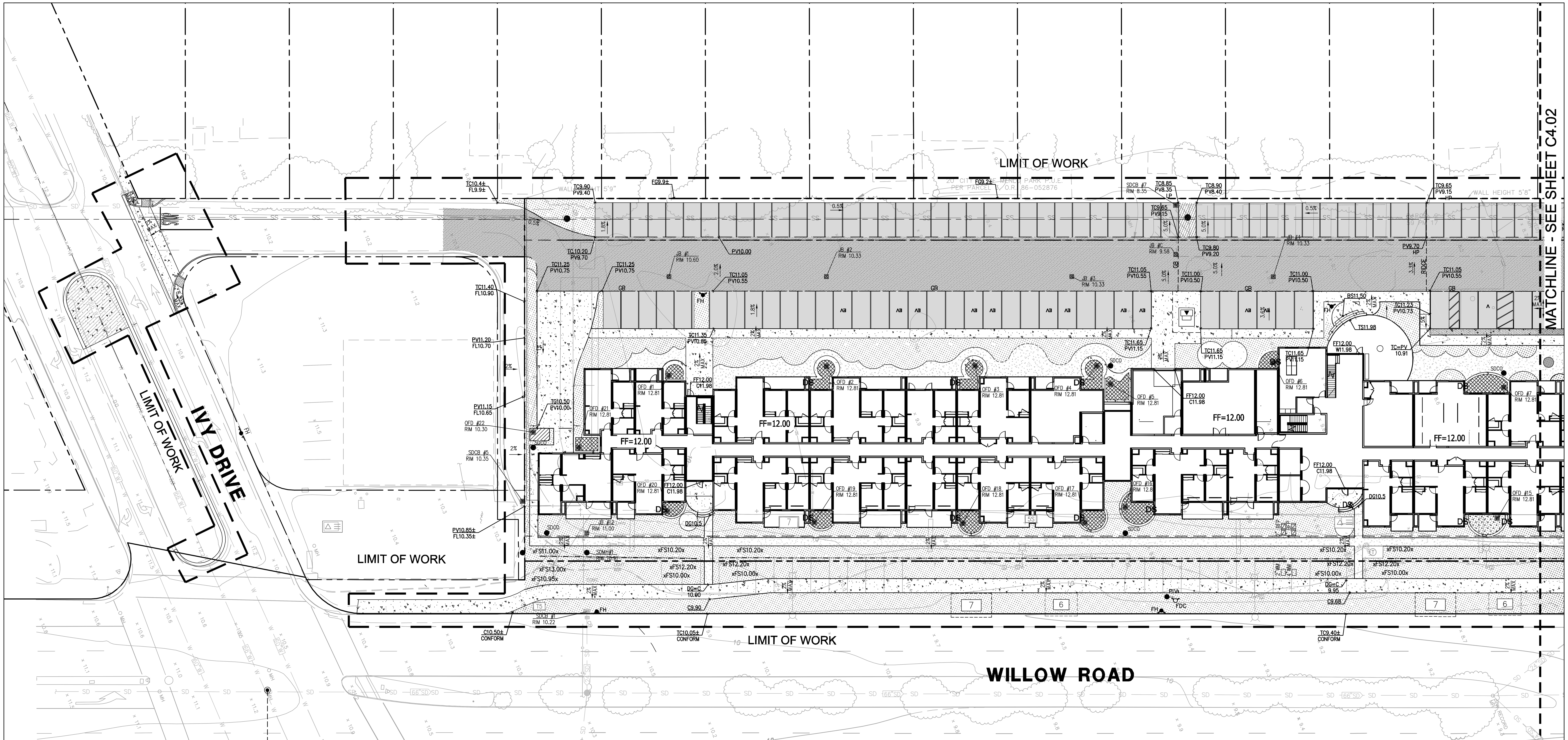
MidPen HOUSING

SUBMISSION
R45 ZONING COMPLIANCE RESUBMITTAL

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

TITLE
PRELIMINARY FIRE ACCESS PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C3.05

NOT FOR CONSTRUCTION



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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
PRELIMINARY GRADING PLAN

PROJECT NO.
20156154

DATE
FEBRUARY 22, 2019

SHEET NUMBER
C4.01

CONSTRUCTION KEY NOTES

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BS	BOTTOM OF STEP
C	CONCRETE
DN	DOWN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
GB	GRADE BREAK
L/S	LANDSCAPE
N.T.S.	NOT TO SCALE
O.R.	OFFICIAL RECORD
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PV	PAVEMENT
RD	ROAD
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
S/W	SIDEWALK
TC	TOP OF CURB
TS	TOP OF STEP
W	WOOD

SHEET NOTES

1. PER CALIFORNIA BUILDING CODE (CBC) §1804.A3 REQUIRES A MINIMUM 5% SLOPE ON LANDSCAPE, AND 2% SLOPE ON PAVEMENT WITHIN 10 FEET OF THE BUILDING UNLESS INTERCEPTED BY A SWALE.
2. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ALL DIRECTIONS. ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 5% IN THE DIRECTION OF TRAVEL AND THE SLOPE CROSSWAYS TO THE DIRECTION OF TRAVEL SHALL BE AT A MAXIMUM OF 2%. ANY ACCESSIBLE PATHS THAT SLOPE MORE THAN 5% SHALL HAVE A HANDRAIL UP TO 8.33%. NO ACCESSIBLE PATHS SHALL SLOPE GREATER THAN 8.33%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER/ARCHITECT PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK, FORM WORK AND/OR FLATWORK.
3. SEE CURB RAMP DETAILS ON SHEET C7.01
4. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT ARE IN CONTACT WITH EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD PER CBC 2304.12.1.2.

FEMA STATEMENT

THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- OVERLAND RELEASE

TRUE NORTH

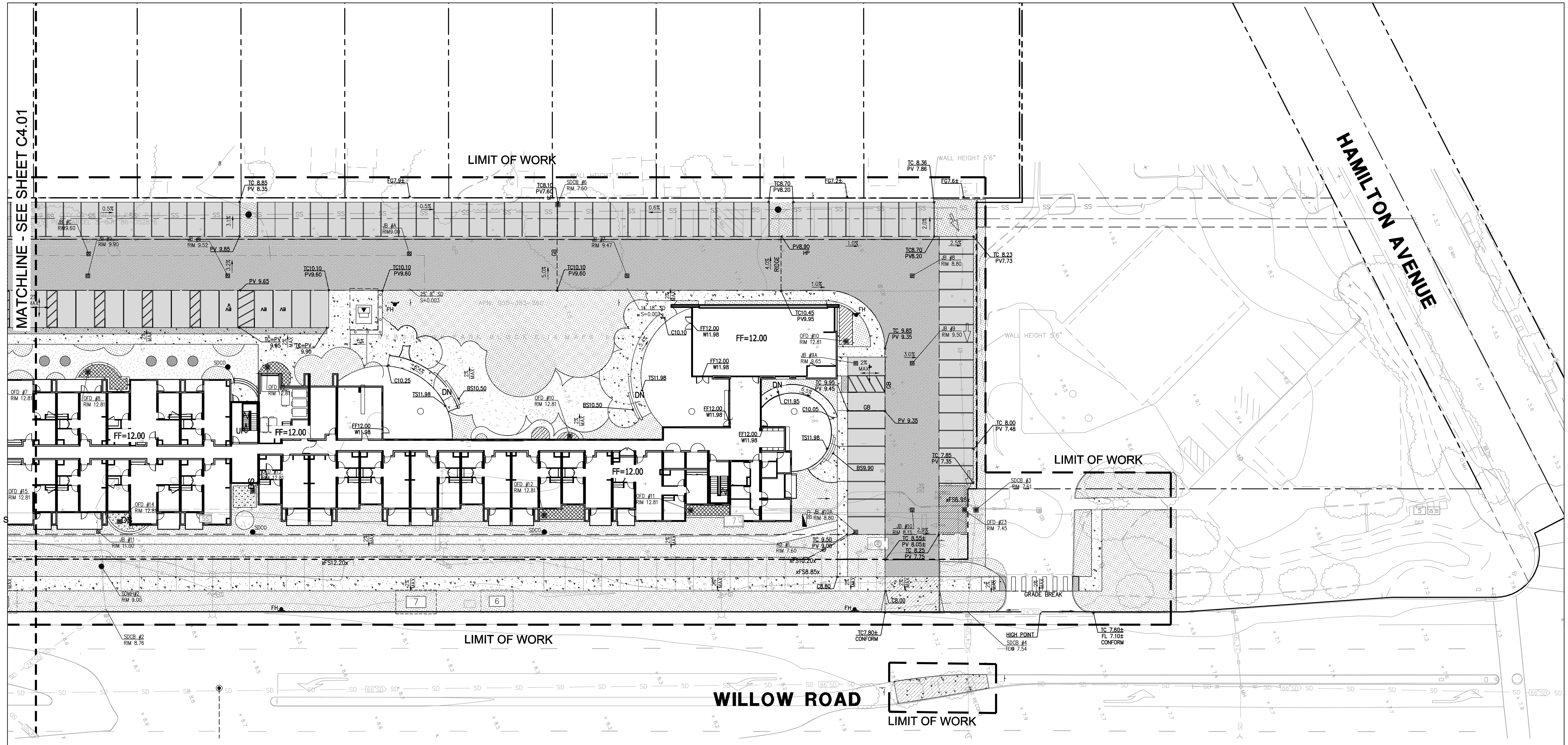
NORTH

GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

DRAWING NAME: K:\2015\156154_1300_Willow_Rd_Gateway_Fam\ENG\PLANNING\SHEETS\R4S\05-1300W-R4SGRAD.dwg
PLOT TIME: 02-25-19
PLOTTED BY: pria

NOT FOR CONSTRUCTION



CONSTRUCTION KEY NOTES

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BS	BOTTOM OF STEP
C	CONCRETE
DN	DOWN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
GB	GRADE BREAK
L/S	LANDSCAPE
N.T.S.	NOT TO SCALE
O.R.	OFFICIAL RECORD
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PV	PAVEMENT
RD	ROAD
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
S/W	SIDEWALK
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3. SEE CURB RAMP DETAILS ON SHEET C7.01
4. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT ARE IN CONTACT WITH EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD PER CBC 2304.12.1.2.

FEMA STATEMENT

THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- OVERLAND RELEASE

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

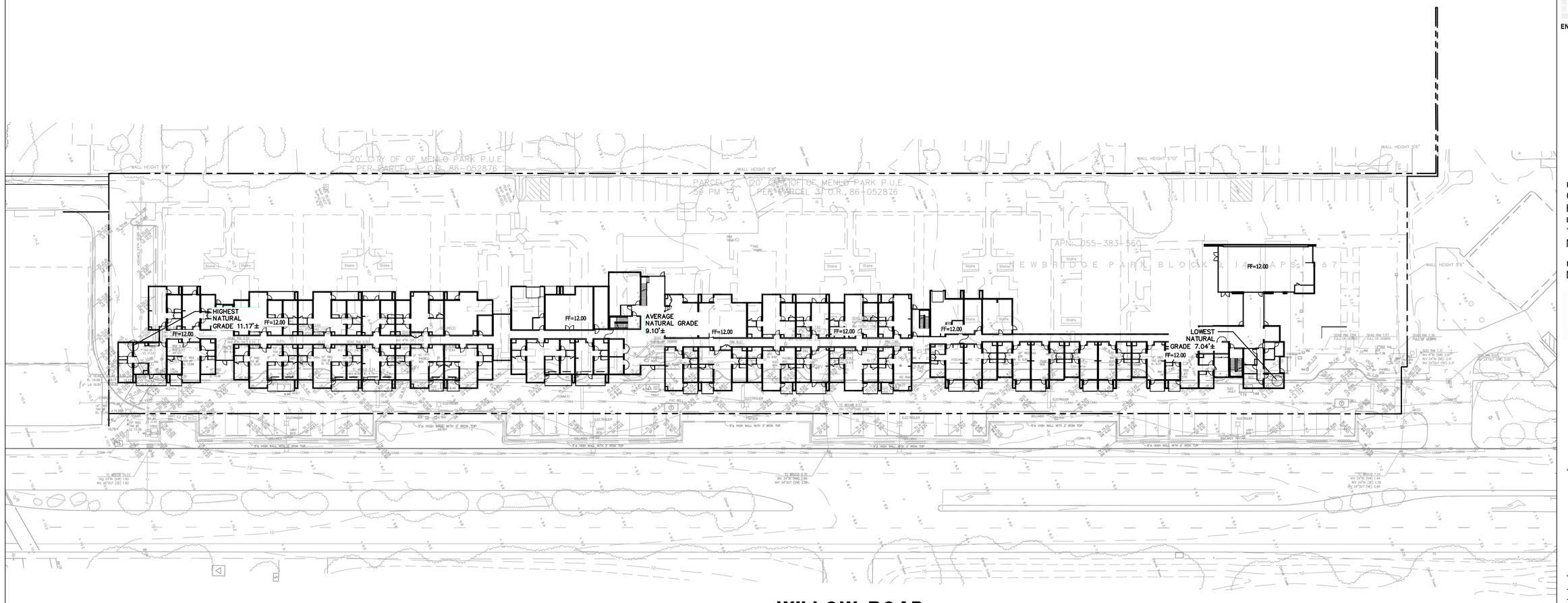
KEYMAP

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
-
CHECK
ENGINEER SEAL

TITLE
PRELIMINARY GRADING PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C4.02



CONSTRUCTION KEY NOTES

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
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DN	DOWN
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SS	SANITARY SEWER
S/W	SIDEWALK
TC	TOP OF CURB
W	WOOD

SHEET NOTES

LEGEND

PROJECT PROPERTY LINE

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 30" x 42"

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DRAWING NAME: n:\20151\154154_1300_Willow_Rd_Gateway_Family\ENG\PLANNING\SHEETS\R4S\09-13DOM-R4SAVGGRAD.dwg
PLOT TIME: 02-26-19
PLOTTED BY: pr14

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PROJECT
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LOCATION
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MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

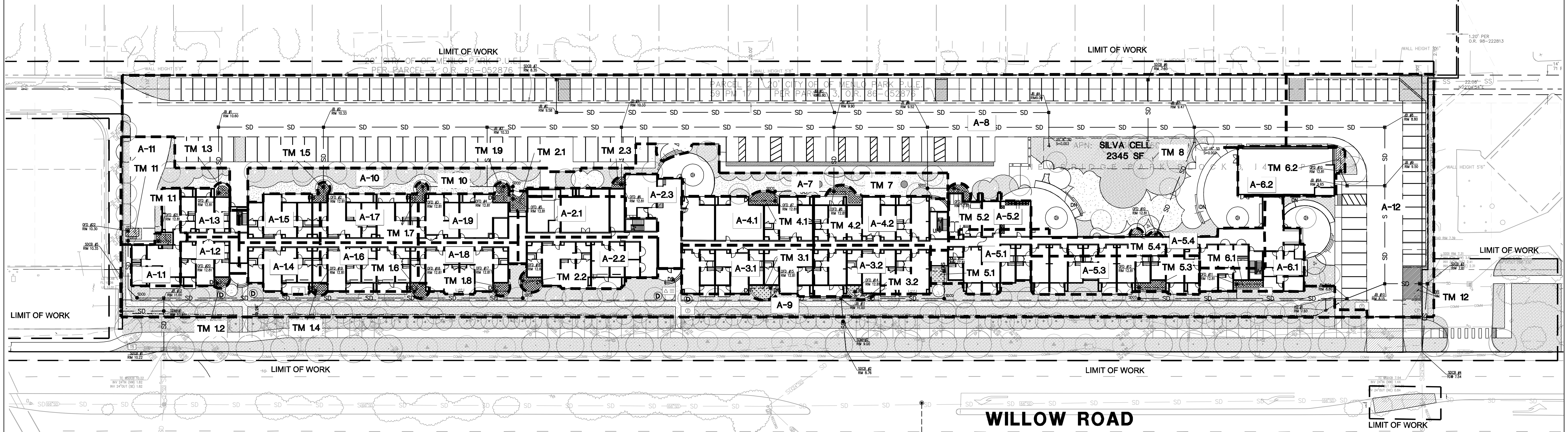
PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
AVERAGE GRADE
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C4.03



DRAINAGE AREA	DRAINAGE AREA SIZE (SF)	PERVIOUS SURFACE (SF)	TYPE OF PERVIOUS SURFACE	IMPERVIOUS SURFACE (SF)	TYPE OF IMPERVIOUS SURFACE	TREATMENT AREA*		TREATMENT CONTROL	CONFORMS TO SIZE STANDARDS?
						REQUIRED (SF)	PROVIDED (SF)		
A-1.1	1,685	70	LANDSCAPE	1,615	ROOF	65	70	FLOW THROUGH PLANTER TM 1.1	YES
A-1.2	1,420	60	LANDSCAPE	1,360	ROOF	54	60	FLOW THROUGH PLANTER TM 1.2	YES
A-1.3	1,400	60	LANDSCAPE	1,340	ROOF	54	60	FLOW THROUGH PLANTER TM 1.3	YES
A-1.4	1,980	80	LANDSCAPE	1,900	ROOF	76	80	FLOW THROUGH PLANTER TM 1.4	YES
A-1.5	2,020	105	LANDSCAPE	1,915	ROOF	77	105	FLOW THROUGH PLANTER TM 1.5	YES
A-1.6	2,555	115	LANDSCAPE	2,440	ROOF	98	115	FLOW THROUGH PLANTER TM 1.6	YES
A-1.7	2,560	105	LANDSCAPE	2,455	ROOF	98	105	FLOW THROUGH PLANTER TM 1.7	YES
A-1.8	2,425	95	LANDSCAPE	2,330	ROOF	93	95	FLOW THROUGH PLANTER TM 1.8	YES
A-1.9	2,500	110	LANDSCAPE	2,390	ROOF	96	110	FLOW THROUGH PLANTER TM 1.9	YES
A-2.1	2,800	120	LANDSCAPE	2,680	ROOF	107	120	FLOW THROUGH PLANTER TM 2.1	YES
A-2.2	3,450	150	LANDSCAPE	3,300	ROOF	132	150	FLOW THROUGH PLANTER TM 2.2	YES
A-2.3	2,195	90	LANDSCAPE	2,105	ROOF	84	90	FLOW THROUGH PLANTER TM 2.3	YES
A-3.1	3,425	155	LANDSCAPE	3,270	ROOF	131	155	FLOW THROUGH PLANTER TM 3.1	YES
A-3.2	3,030	120	LANDSCAPE	2,910	ROOF	116	120	FLOW THROUGH PLANTER TM 3.2	YES
A-4.1	3,400	150	LANDSCAPE	3,250	ROOF	130	150	FLOW THROUGH PLANTER TM 4.1	YES
A-4.2	3,580	140	LANDSCAPE	3,440	ROOF	138	140	FLOW THROUGH PLANTER TM 4.2	YES
A-5.1	2,765	120	LANDSCAPE	2,645	ROOF	106	120	FLOW THROUGH PLANTER TM 5.1	YES
A-5.2	1,470	85	LANDSCAPE	1,385	ROOF	55	85	FLOW THROUGH PLANTER TM 5.2	YES
A-5.3	3,300	330	LANDSCAPE	2,970	ROOF	119	130	FLOW THROUGH PLANTER TM 5.3	YES
A-5.4	3,140	125	LANDSCAPE	3,015	ROOF	121	125	FLOW THROUGH PLANTER TM 5.4	YES
A-6.1	2,375	105	LANDSCAPE	2,270	ROOF	91	105	FLOW THROUGH PLANTER TM 6.1	YES
A-6.2	2,630	115	LANDSCAPE	2,515	ROOF	101	115	FLOW THROUGH PLANTER TM 6.2	YES
A-7	3,820	775	LANDSCAPE ARTIFICIAL TURF WOOD DECK	3,045	WALKING PATH	122	170	BIORETENTION AREA TM 7	YES
A-8	64,230	5635	LANDSCAPE, SILVA CELLS	58,595	DRIVE AISLE SIDEWALK	2345	2345	SILVA CELLS	YES
A-9	18,225	18025	LANDSCAPE DECOMPOSED GRANITE (PERVIOUS)	200	STAIRS	200	TREE CREDITS TABLE 2	TREE CREDIT	YES
A-10	4,840	2490	LANDSCAPE	2,350	SIDEWALK DECOMPOSED GRANITE (IMPERVIOUS)	1,175	1,175	SELF RETAINING AREA	YES
A-11	3,070	1615	LANDSCAPE	1,455	SIDEWALK DECOMPOSED GRANITE (IMPERVIOUS)	58	70	BIORETENTION PLANTER TM 11	YES
A-12	15,825	3085	LANDSCAPE	12,740	PAVEMENT	510	510	BIORETENTION PLANTER TM 12	

*TREATMENT AREAS REQUIRED: BIORETENTION (4% OF IMPERVIOUS AREA), SELF-RETAINING (1/2 OF IMPERVIOUS AREA)

TABLE 2

INTERCEPTOR TREE CREDIT					
(DRAINAGE AREA 9)	TREE TYPE	IMPERVIOUS SURFACE (SQ. FT.)	CREDIT ALLOWED (SQ. FT.)	NUMBER OF TREES	TOTAL CREDIT
	D		100	4	400
	E		200	0	0
		200			200
	REMAINDER OF IMPERVIOUS SURFACE REQUIRING TREATMENT				0

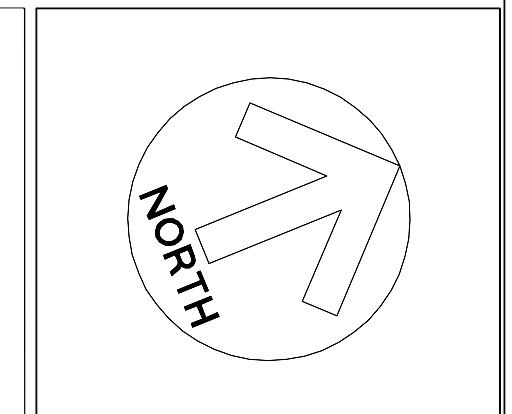
CONSTRUCTION KEY NOTES

SHEET NOTES

LEGEND

PROJECT PROPERTY LINE
ADJACENT PROPERTY LINES
CALTRANS RIGHT OF WAY
LOT LINES
EASEMENT LINE
CENTER LINE
MONUMENT LINE
LIMIT OF WORK
PROPOSED SIGNAGE
A-X DRAINAGE AREA BOUNDARY
FLOW THROUGH PLANTER
BIORETENTION

TRUE NORTH



GRAPHIC SCALE

30 0 30 60
SCALE: 1"=30'

NOT FOR CONSTRUCTION

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PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

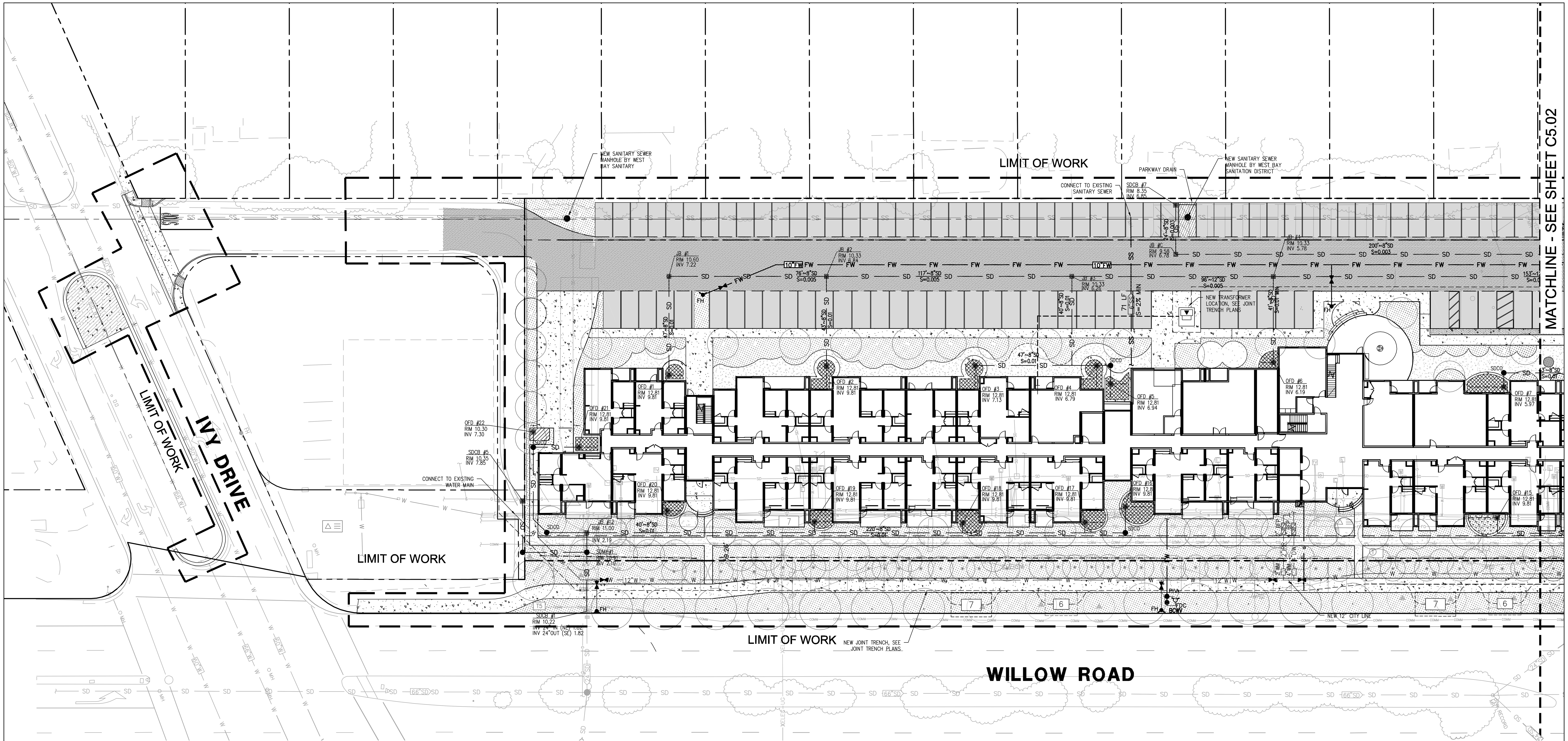
SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

NO. DATE REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
CHECK
ENGINEER SEAL

TITLE
PRELIMINARY STORMWATER PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C5.01

ORIGINAL SHEET SIZE 30"x42"



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PROJECT
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LOCATION
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MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
CHECK
ENGINEER SEAL

CONSTRUCTION KEY NOTES

SHEET NOTES

1. ONSITE SANITARY SEWER SEWER MAIN IS OWNED BY WEST BAY SANITATION DISTRICT. STORM DRAIN SYSTEMS AND LATERALS ARE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER AS WELL AS WATER LINES AND APPURTENANCES DOWNSTREAM OF DOMESTIC METERS AND FIRE BACKFLOWS. THE WATER MAIN, FIRE HYDRANTS, FIRE BACKFLOW DEVICES AND WATER METERS ARE OWNED AND MAINTAINED BY MENLO PARK MUNICIPAL WATER DISTRICT (MPMWD).
2. FIRE WATER, TELEPHONE/COMMUNICATION, GAS, ELECTRICAL, AND STREET LIGHT LINES & STRUCTURES ARE SHOWN FOR COORDINATION PURPOSES ONLY. SEE ELECTRICAL, FIRE PROTECTION, PLUMBING, AND PG&E PLANS FOR MORE INFORMATION.
3. SEE LANDSCAPE PLANS FOR LANDSCAPE AREA DRAINS AND IRRIGATION LINES.
4. CONTRACTOR SHALL MAINTAIN 12" VERTICAL CLEARANCE ABOVE OR BELOW EXISTING AND NEW UTILITIES CROSSING.
5. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
6. TRENCHES :
   A) UTILITY TRENCHES PER GEOTECHNICAL REPORT.
7. PIPE MATERIAL:
   A) PRIVATE SD: PVC SDR-26, UNLESS OTHERWISE NOTED
   B) PUBLIC SD: RCP CLASS 3
   C) PRIVATE SS: PVC SDR-26
   E) PRIVATE WATER: PVC AWWA C900, DR 14, CLASS 350 PER MPMWD.
   PUBLIC WATER: FUSED HDPE
8. SOILS ARE FOUND TO BE CORROSIVE. ALL BURIED METAL COMPONENTS SHALL BE PROTECTED. CORROSION PROTECTION TO BE DESIGNED BY A CORROSION ENGINEER.
9. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
10. UNLESS OTHERWISE NOTED, IT IS THE INTENT TO PROTECT AND ADJUST TO GRADE ALL EXISTING FACILITIES.
11. VIDEO INSPECTION OF THE EXISTING LATERAL WILL BE PERFORMED PRIOR TO CONSTRUCTION. IF THE CONDITION OF THE EXISTING PIPE IS DEGRADED, THE PROJECT WILL BE REQUIRED TO REPLACE IT.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- PROPOSED JOINT TRENCH
- GAS — GAS: PROPOSED GAS
- W: PROPOSED WATER LINE
- FW: PROPOSED FIRE WATER LINE
- SS: PROPOSED SANITARY SEWER LINE
- SD: PROPOSED STORM DRAIN LINE
- E — E: EXISTING ELECTRIC LINE
- G — G: EXISTING GAS LINE
- FO — FO: EXISTING FIBER OPTIC LINE
- SL — SL: EXISTING STREET LIGHT LINE
- COMM — COMM — COMM: EXISTING COMMUNICATIONS LINE
- SS: EXISTING SANITARY SEWER LINE

TRUE NORTH

NORTH

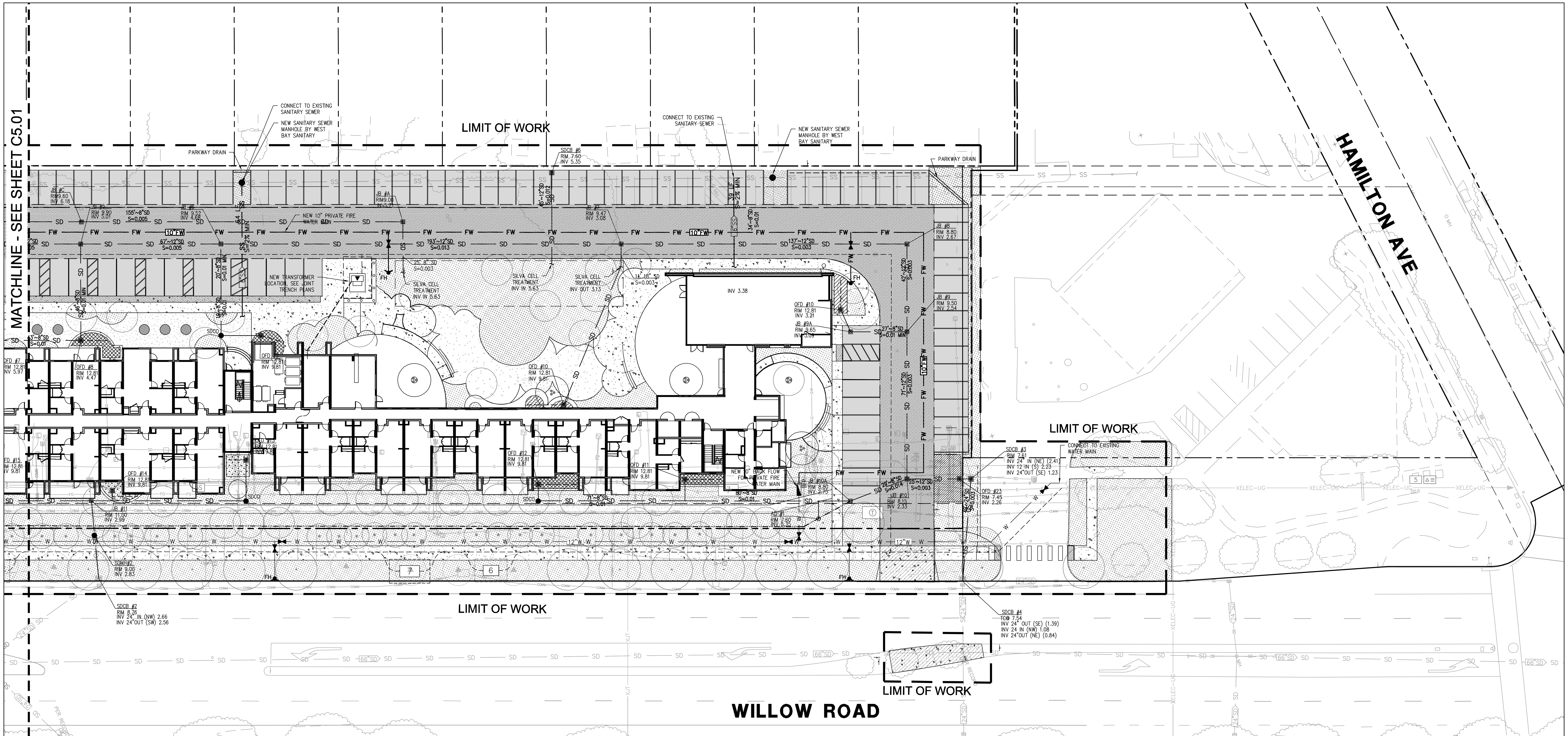
GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

TITLE
PRELIMINARY UTILITY PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C6.01

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION



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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION
R45 ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

CONSTRUCTION KEY NOTES

SHEET NOTES

1. ONSITE SANITARY SEWER SEWER MAIN IS OWNED BY WEST BAY SANITATION DISTRICT. STORM DRAIN SYSTEMS AND LATERALS ARE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER AS WELL AS WATER LINES AND APPURTENANCES DOWNSTREAM OF DOMESTIC METERS AND FIRE BACKFLOWS. THE WATER MAIN, FIRE HYDRANTS, FIRE BACKFLOW DEVICES AND WATER METERS ARE OWNED AND MAINTAINED BY MENLO PARK MUNICIPAL WATER DISTRICT (MPMWD).
2. FIRE WATER, TELEPHONE/COMMUNICATION, GAS, ELECTRICAL, AND STREET LIGHT LINES & STRUCTURES ARE SHOWN FOR COORDINATION PURPOSES ONLY. SEE ELECTRICAL, FIRE PROTECTION, PLUMBING, AND PG&E PLANS FOR MORE INFORMATION.
3. SEE LANDSCAPE PLANS FOR LANDSCAPE AREA DRAINS AND IRRIGATION LINES.
4. CONTRACTOR SHALL MAINTAIN 12" VERTICAL CLEARANCE ABOVE OR BELOW EXISTING AND NEW UTILITIES CROSSING.
5. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
6. TRENCHES :
   A) UTILITY TRENCHES PER GEOTECHNICAL REPORT.
7. PIPE MATERIAL:
   A) PRIVATE SD: PVC SDR-26, UNLESS OTHERWISE NOTED
   B) PUBLIC SD: RCP CLASS 3
   C) PRIVATE SS: PVC SDR-26
   E) PRIVATE WATER: PVC AWWA C900, DR 14, CLASS 350 PER MPMWD.
   PUBLIC WATER: FUSED HDPE
8. SOILS ARE FOUND TO BE CORROSIVE. ALL BURIED METAL COMPONENTS SHALL BE PROTECTED. CORROSION PROTECTION TO BE DESIGNED BY A CORROSION ENGINEER.
9. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
10. UNLESS OTHERWISE NOTED, IT IS THE INTENT TO PROTECT AND ADJUST TO GRADE ALL EXISTING FACILITIES.
11. VIDEO INSPECTION OF THE EXISTING LATERAL WILL BE PERFORMED PRIOR TO CONSTRUCTION. IF THE CONDITION OF THE EXISTING PIPE IS DEGRADED, THE PROJECT WILL BE REQUIRED TO REPLACE IT.

LEGEND

PROJECT PROPERTY LINE	PROPOSED JOINT TRENCH
ADJACENT PROPERTY LINES	PROPOSED GAS
CALTRANS RIGHT OF WAY	PROPOSED WATER LINE
LOT LINES	PROPOSED FIRE WATER LINE
EASEMENT LINE	PROPOSED SANITARY SEWER LINE
CENTER LINE	PROPOSED STORM DRAIN LINE
MONUMENT LINE	EXISTING ELECTRIC LINE
LIMIT OF WORK	EXISTING GAS LINE
PROPOSED SIGNAGE	EXISTING FIBER OPTIC LINE
	EXISTING STREET LIGHT LINE
	EXISTING COMMUNICATIONS LINE
	EXISTING SANITARY SEWER LINE

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

TITLE
PRELIMINARY UTILITY PLAN

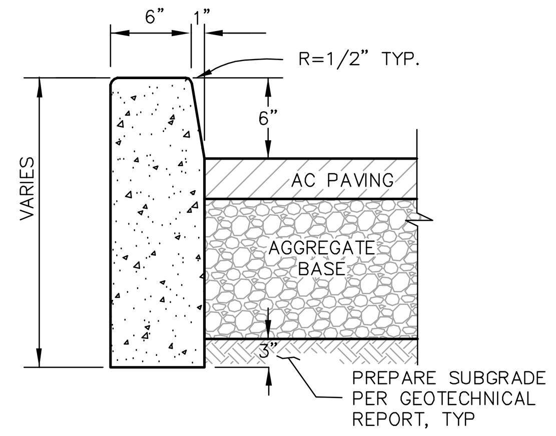
PROJECT NO.
20156154

DATE
FEBRUARY 22, 2019

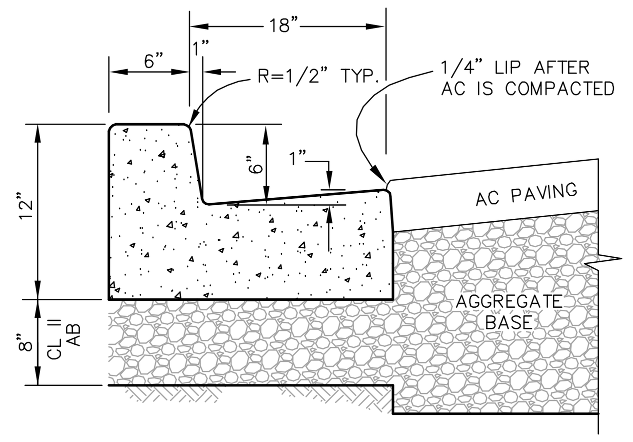
ORIGINAL SHEET SIZE 30" x 42"

SHEET NUMBER
C6.02

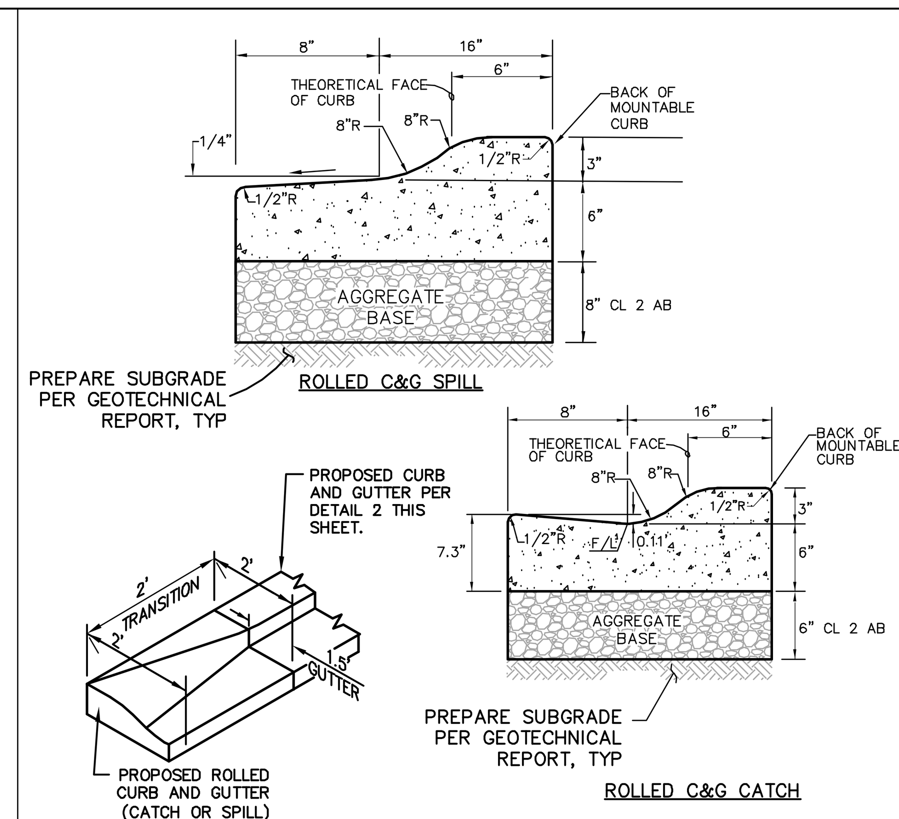
NOT FOR CONSTRUCTION



1 PRIVATE VERTICAL CURB

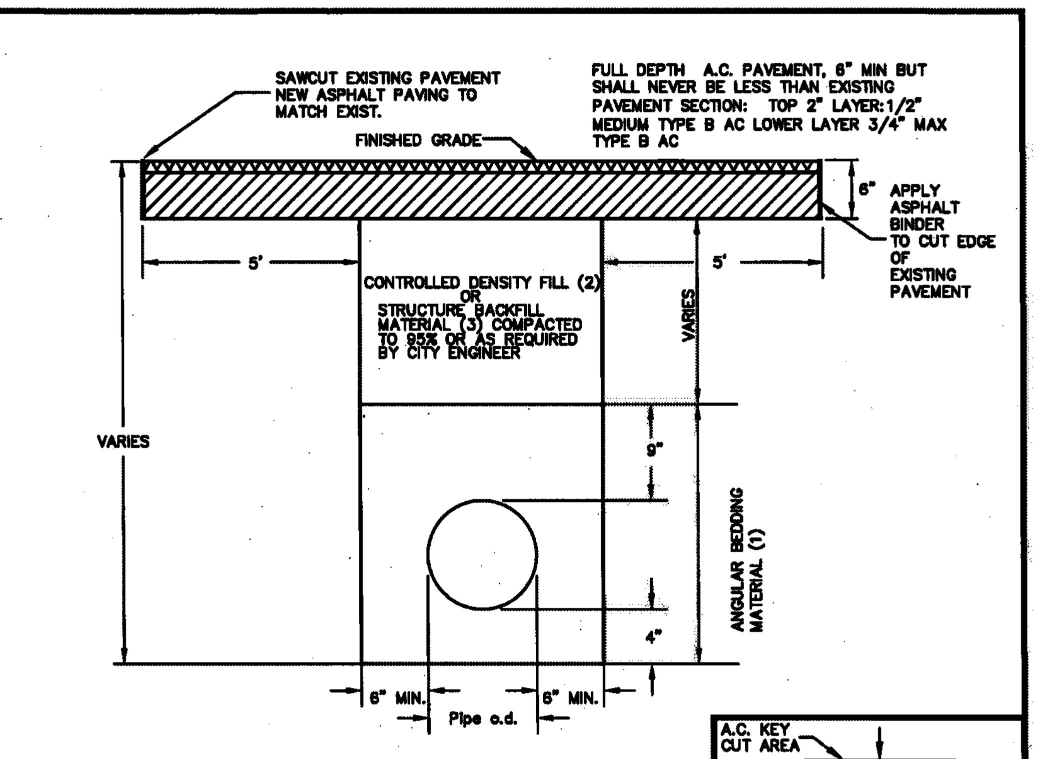


2 PRIVATE VERTICAL CURB AND GUTTER



3 ROLLED CURB

4 NOT USED



NOTES
1. THE DESIGN MIX FOR ANGULAR BEDDING MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

SIEVE SIZE	% PASSING SIEVE
1"	100
3/4"	90–100
3/8"	20–55
#4	0–10
#8	0–5

2. THE DESIGN FOR CDF SHALL MEET THE FOLLOWING REQUIREMENTS:

CEMENT	50–100 LB/CU.YD
FLY ASH, CLASS F	10–2000 LB/CU.YD
FINE AGGREGATE	2600–3100LB/CU.YD
WATER	325–580 LB/CU.YD
STRENGTH @28 DAY	50–100 PSI

3. STRUCTURE BACKFILL MATERIAL: MATERIAL WITH SAND EQUIVALENT NOT LESS THAN 20 AND SIEVE GRADATION BY WEIGHT AS FOLLOWS:

SIEVE SIZE	% PASSING SIEVE
75mm(3")	100
NO.4	35–100
NO.30	20–100

4. BACKFILL MATERIAL FOR LANDSCAPED AREAS: MATERIAL FROM EXCAVATION FREE FROM STONES OR LUMPS EXCEEDING 3", ORGANIC MATTER OR OTHER UNSATISFACTORY MATERIAL.
5. CONTRACTOR OR UTILITY OWNER TO PAY FOR ALL REQUIRED COMPACTION TEST(S).
6. FOR ALL TRENCHING IN THE STREET RIGHT OF WAY, THE CONTRACTOR SHALL PLACE SLURRY SEAL TO CONFORM TO CITY STANDARD ST-16.
7. FINISHED GRADE TO MATCH EXISTING.
8. SAND: MATERIAL FREE FROM ORGANIC MATTER AND CLAY WITH A SIEVE GRADATION BY WEIGHT AS FOLLOWS:

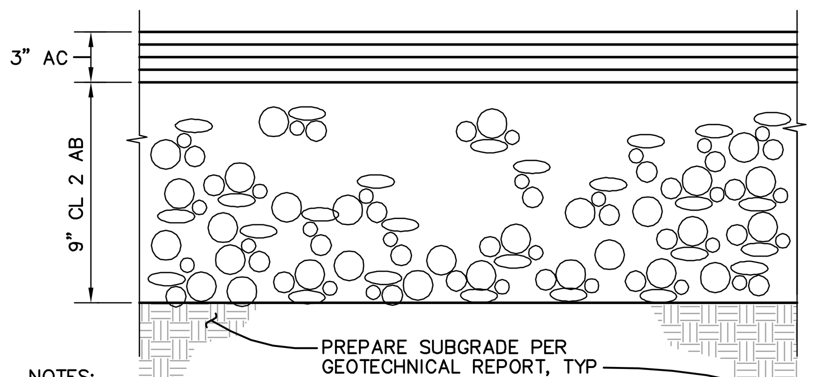
SIEVE SIZE	% PASSING SIEVE
NO. 4	100
NO. 200	0–5

9. CUT EDGE OF EXISTING PAVEMENT SHALL NOT LIE WITHIN THE WHEELTRACK. SEE ST-9B FOR WHEEL TRACK DIAGRAM

CITY OF MENLO PARK STANDARD DETAILS
UTILITY TRENCH
APPROVED — ENGINEERING SERVICES MANAGER, R.C.E. No.70736
DRAWN WL/VP | CHECKED NVS | DATE 5/21/12 | SCALE NTS | SHEET 1 OF 1 | STD. DETAIL NO.: ST-9A

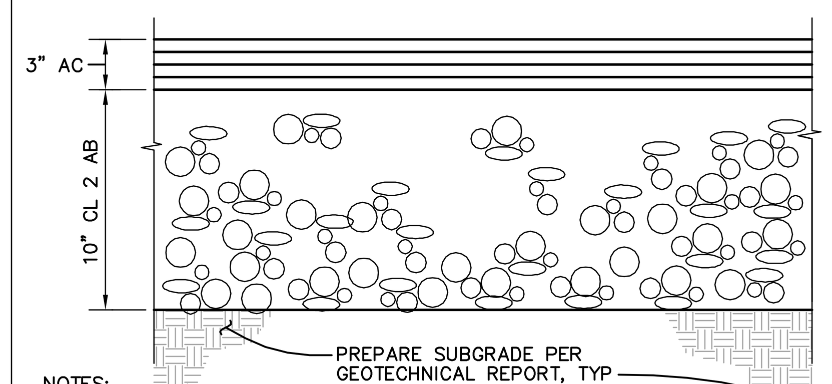
X:\EngDiv\CADSTNRD\Standard Details\ST-9A

9 UTILITY TRENCH DETAIL



NOTES:
1. TI=4.5, R-VALUE: 78
2. NEW ASPHALTIC CONCRETE SURFACING (EXCLUDING DRIVEWAY AND CONFORM PAVING) SHALL BE SLURRY SEALED.
3. CLASS 2 AGGREGATE BASE SHALL BE 95% RELATIVE COMPACTED AND PER CALTRANS STANDARDS.
4. SUBGRADE SHALL BE 95% RELATIVE COMPACTED AND PER GEOTECHNICAL REPORT.

5 PRIVATE ASPHALT CONCRETE SECTION



NOTES:
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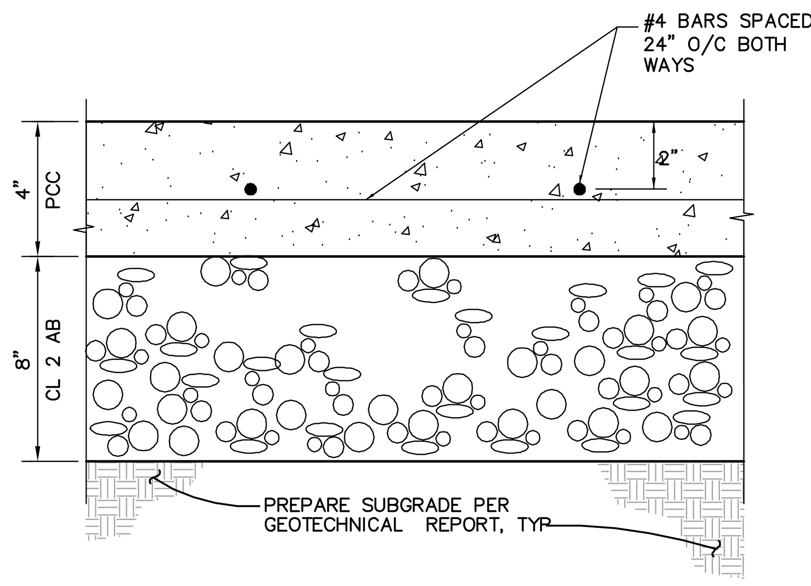
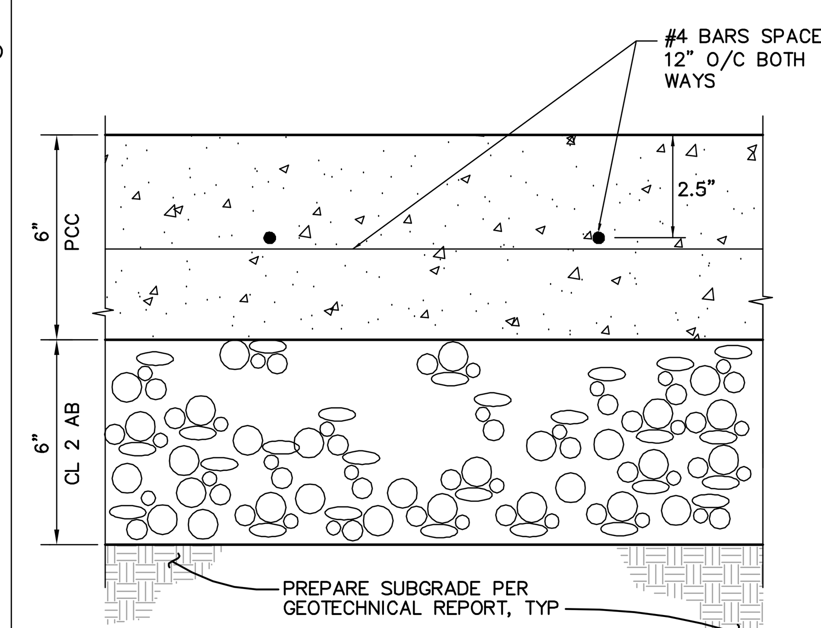
3. CLASS 2 AGGREGATE BASE SHALL BE 95% RELATIVE COMPACTED AND PER CALTRANS STANDARDS.
4. SUBGRADE SHALL BE 95% RELATIVE COMPACTED AND PER GEOTECHNICAL REPORT

6 PRIVATE ASPHALT CONCRETE IN FIRE LANE



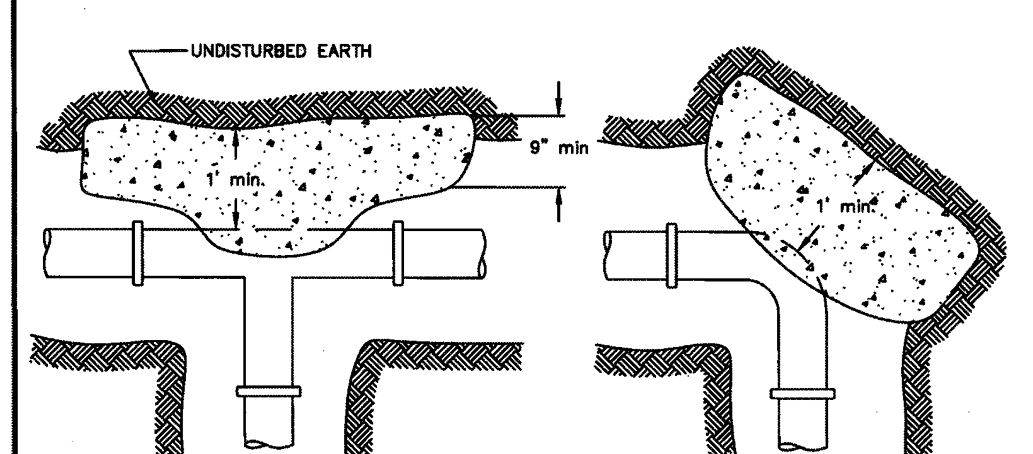
NOTE: CONTROL JOINT SPACING, SHALL BE PER GEOTECHNICAL REPORT

7 PRIVATE EXTERIOR CONCRETE FLATWORK



NOTE: CONTROL JOINT SPACING, SHALL BE PER GEOGRAPHICAL REPORT

8 CONCRETE SECTION FIRE LANE

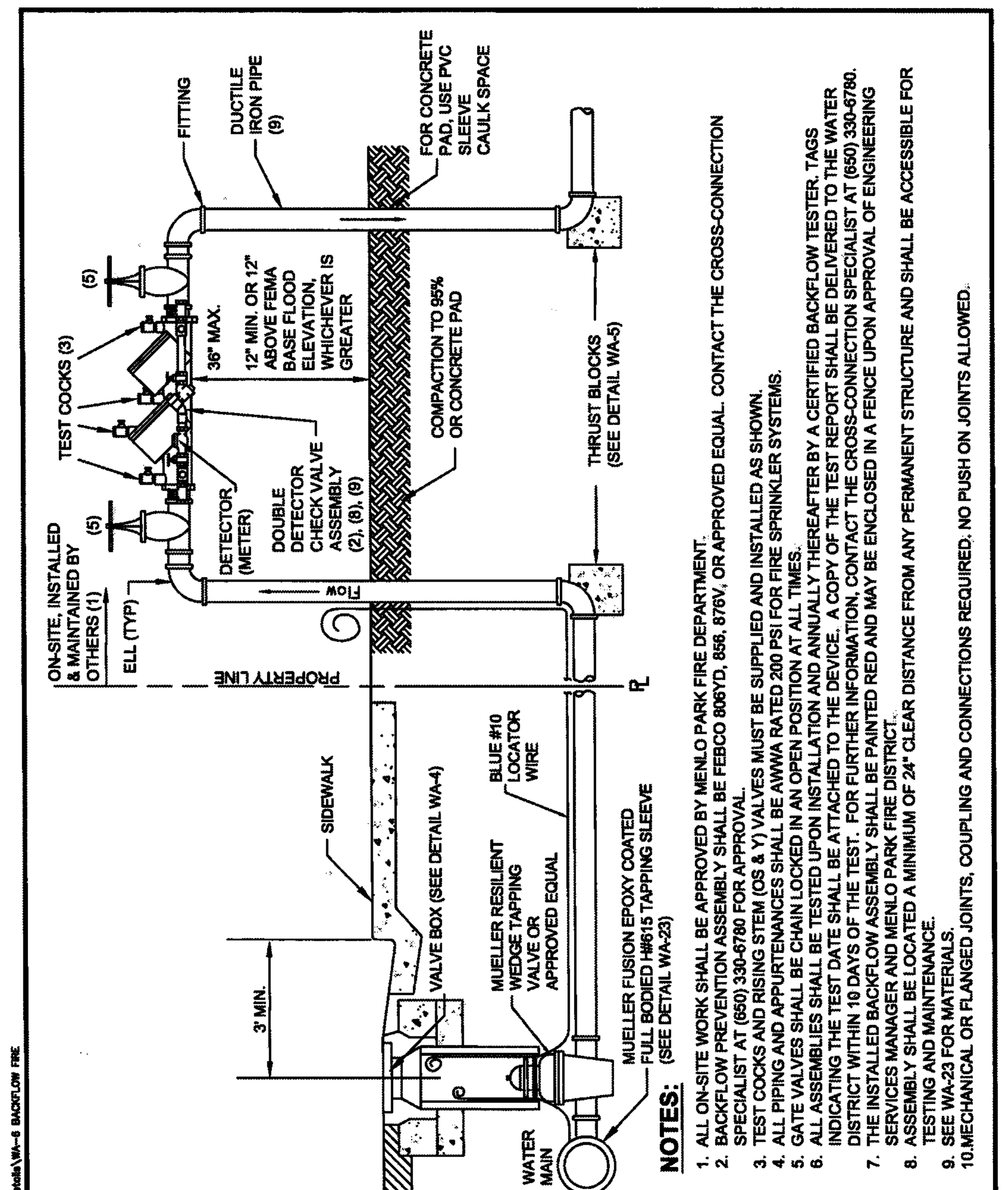


	MINIMUM REQUIRED BEARING AREAS – in square feet									
	TYPICAL CLAY SOIL (1000 psf)					CLEAN GRANULAR SOIL (2500 psf)				
SIZE OF BRANCH PIPE	11¼°	22½°	45°	90°	Tee	11¼°	22½°	45°	90°	Tee
4"					2.5					
6"	2.0	2.0	3.0	5.5	4.0	2.0	2.0	2.0	2.0	2.0
8"	2.0	2.5	5.0	9.5	6.5	2.0	2.0	2.0	4.0	3.0
12"	3.0	6.0	11.5	21.5	15.5	2.0	2.5	5.0	9.0	6.0
16"	5.0	10.5	20.5	38.0	27.0	2.0	4.0	8.0	15.0	11.0

NOTES:
1. ALL NUTS, BOLTS AND COUPLINGS SHALL BE KEPT CLEAR OF CONCRETE.
2. ALL BLOCKS MUST BEAR AGAINST UNDISTURBED EARTH.
3. REINFORCING STEEL, 4@12" O.C. REQUIRED FOR BLOCKS LARGER THAN 5 SQ.FT. OR AS DIRECTED BY THE CITY ENGINEERING SERVICE MANAGER.
4. CONCRETE FOR THRUST BLOCK SHALL BE CLASS B (5 SACKS)@ 2500psi MIN.
5. SEE DETAIL WA-23 FOR PIPE COVERING REQUIREMENTS.
6. MECHANICAL OR FLANGED JOINTS, COUPLINGS AND CONNECTIONS REQUIRED (NO PUSH ON JOINTS ALLOWED).

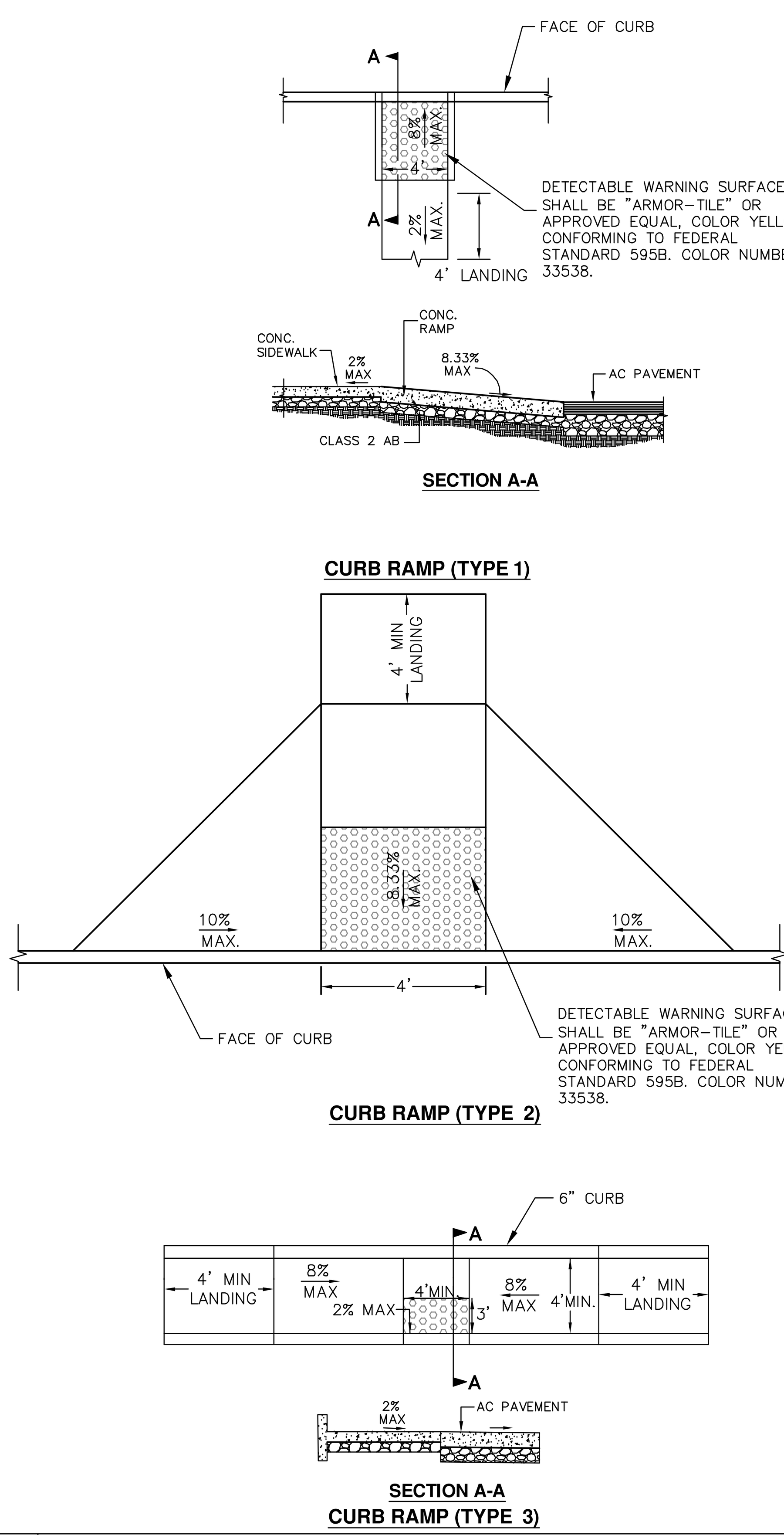
CITY OF MENLO PARK STANDARD DETAILS
THRUST BLOCKING FOR TEES AND BENDS
APPROVED — ENGINEERING SERVICES MANAGER, R.C.E. No.70736
DRAWN EJE | CHECKED VP | DATE 2/14/12 | SCALE NTS | SHEET 1 OF 1 | STD. DETAIL No. WA-5

10 THRUST BLOCK



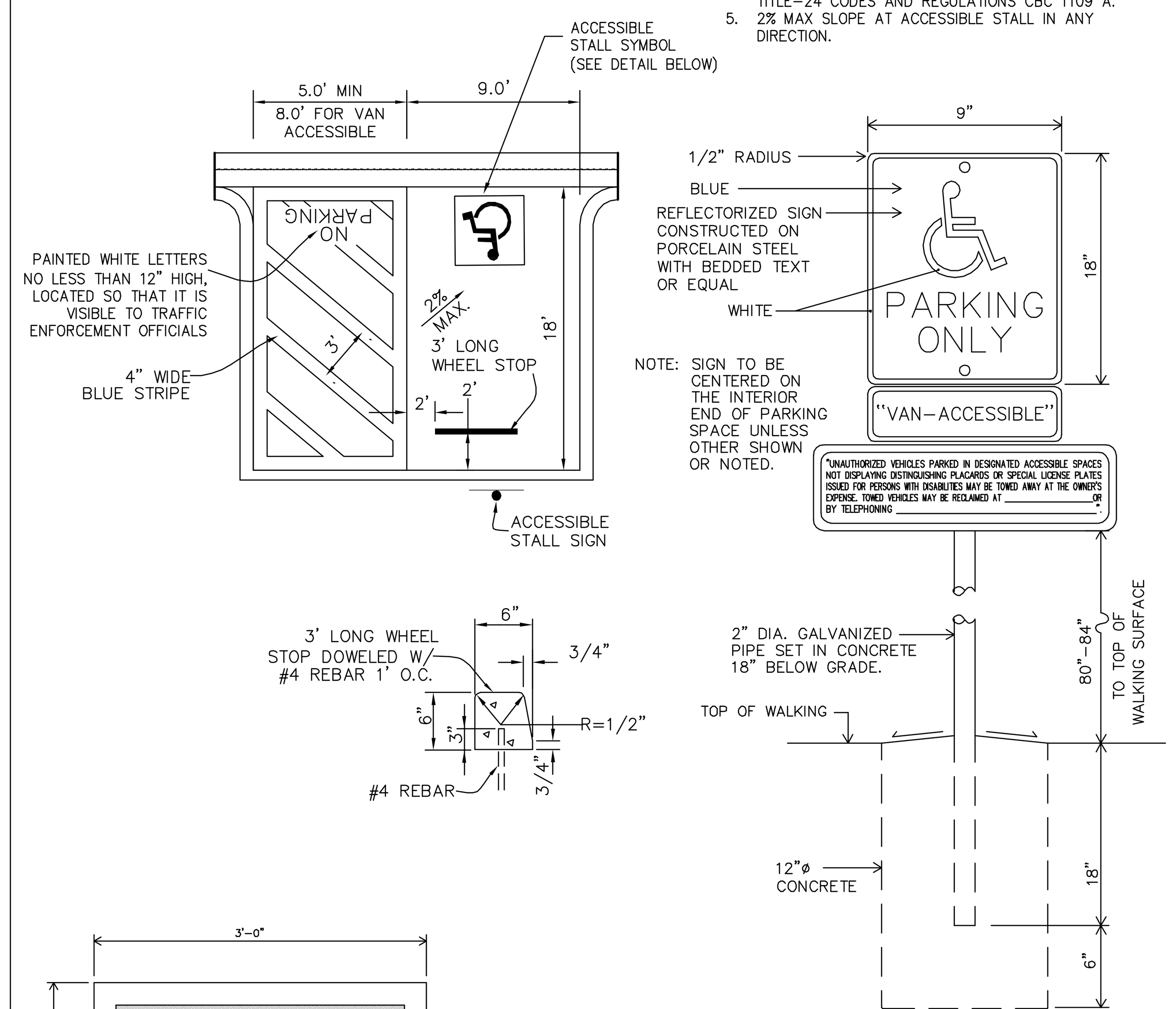
CITY OF MENLO PARK STANDARD DETAILS
BACKFLOW PREVENTION INSTALLATION FOR ON-SITE FIRE SERVICE
APPROVED — ENGINEERING SERVICES MANAGER, R.C.E. No.70736
DRAWN EJE | CHECKED VP | DATE 2/14/12 | SCALE NTS | SHEET 1 OF 1 | STD. DETAIL No. WA-8

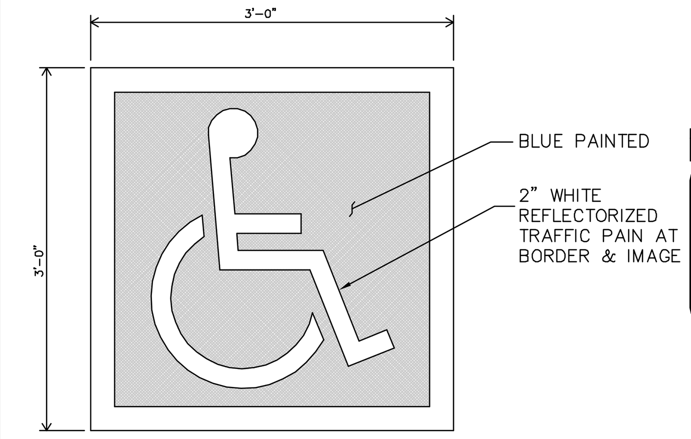
11 PRIVATE BACKFLOW PREVENTER



12 ADA CURB RAMP

NOTES:
1. ACCESSIBLE PARKING FACILITIES SHALL COMPLY WITH CBC 11B-208.
2. BLANK SPACES SHALL BE FILLED IN W/ APPROPRIATE INFORMATION AS A PERMANENT PART OF SIGN.
3. LETTERING SHALL BE AT LEAST 1" IN HEIGHT.
4. ACCESSIBLE PARKING SIGNS SHALL CONFORM WITH CURRENT ADA AND CALIFORNIA ACCESSIBLE TITLE-24 CODES AND REGULATIONS CBC 1109 A.
5. 2% MAX SLOPE AT ACCESSIBLE STALL IN ANY DIRECTION.





ACCESSIBLE STALL SYMBOL

"UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT THE OWNER'S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT ______ OR BY TELEPHONING ______."

VAN ACCESSIBLE PARKING SPACE SIGN

13 ADA PARKING STALL

MITHŪN
SEATTLE / Pier 56, 1201 Alaskan Way, #200 Seattle, WA 98101 / 206.623.3344
SAN FRANCISCO / 660 Market Street, #300 San Francisco, CA 94104 / 415.956.0688

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1730 N. FIRST STREET, SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
www.bkf.com

PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

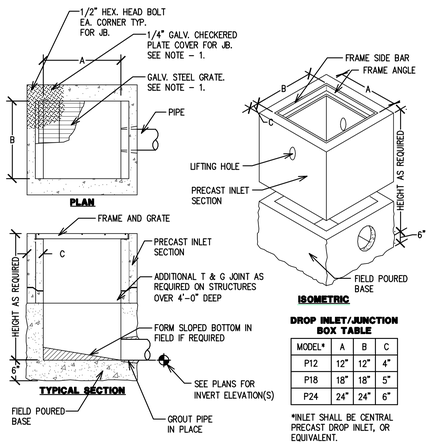
NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
CHECK
ENGINEER SEAL

TITLE
CONSTRUCTION DETAILS
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C7.01

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION



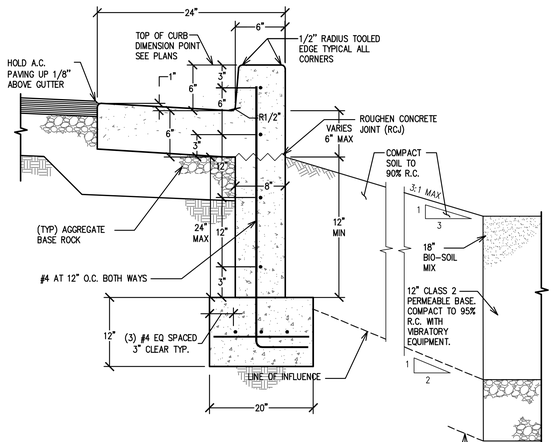
DROP INLET/JUNCTION BOX TABLE

MODEL*	A	B	C
P12	12"	12"	4"
P18	18"	18"	5"
P24	24"	24"	6"

*INLET SHALL BE CENTRAL PRECAST DROP INLET, OR EQUIVALENT.

NOTE:
FRAMES AND GRATES SHALL BE HEAVY DESIGNED FOR H20 HIGHWAY LOADING. GRATE TO BE BICYCLE PROOF.

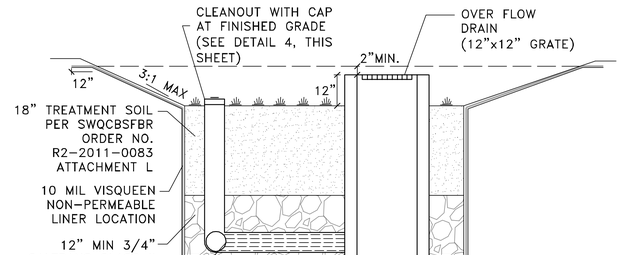
1 OVERFLOW DRAIN/ JUNCTION BOX



NOTES:

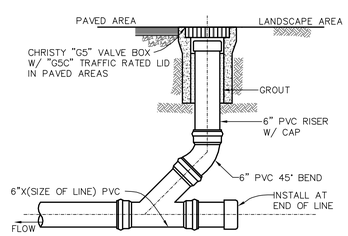
1. BASEROCK TO BE COMPACTED TO A MIN. OF 95% & FIELD TESTED BY THE GEOTECHNICAL ENGINEER.
2. CURB MAY EITHER BE EXTRUDED TO THE SHAPE SHOWN OR FORMED & POURED IN PLACE.
3. PROVIDE EXPANSION JOINTS AT 20' O.C.
4. SEE DETAIL 2, THIS SHEET FOR MORE INFORMATION ON RAIN GARDEN.
5. IF CLASS 2 PERMEABLE BASE AT BIORETENTION AREA CANNOT BE COMPACTED TO 95% R.C. THE 2:1 LINE OF INFLUENCE SHALL BE MOVED TO THE BOTTOM OF THE BASE.

2 KEYED CURB & GUTTER



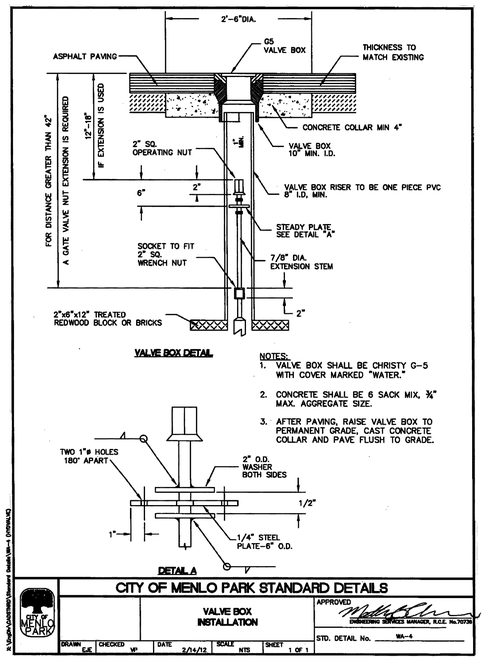
3 BIORETENTION BASIN

NOT USED

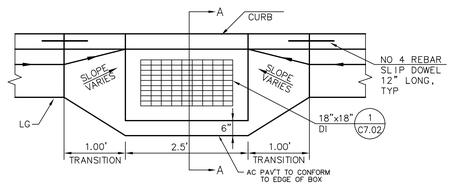


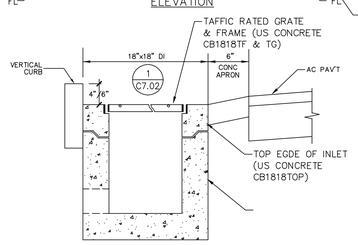
NOTES:
1. ALL PVC PIPE TO BE SDR 35.
2. LIDS SHALL BE MARKED "SD" FOR STORM DRAIN & "SS" FOR SANITARY SEWER.
3. INSTALL H20 TRAFFIC LOADING FRAME & COVER WHEN CLEAN-OUTS ARE SUBJECT TO VEHICULAR TRAFFIC

4 STORM DRAIN CLEAN OUT

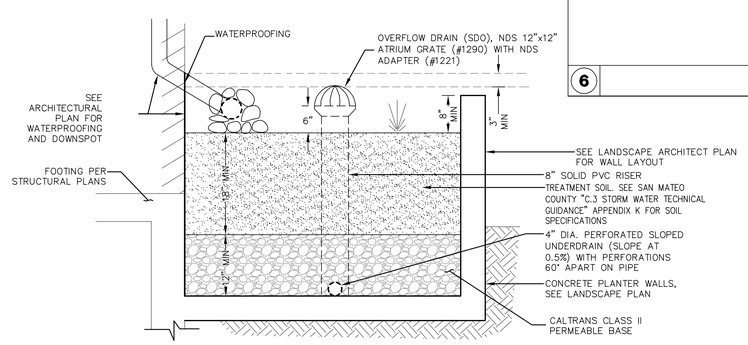


5 WATER VALVE BOX





6 PRIVATE CATCH BASIN



7 FLOW THROUGH PLANTER

MITHUN
SEATTLE / Pier 56, 1201 Alaskan Way, #200
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SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0088

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KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
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PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
CONSTRUCTION DETAILS
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C7.02

ORIGINAL SHEET SIZE: 36" x 42"

NOT FOR CONSTRUCTION

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DRAWING NAME: K:\20151\154154_1-300_IR\11xx_Rd_Gateway_C\ent\GND\PLANNING\SHEETS\[AND\]36-1-300M-R4SCD .dwg
PLOT TIME: 02-25-19
PLOTTED BY: pr14

All curbs and signs are to be maintained by the property owner.

All signs must conform to Menlo Park Fire Protection District Guidelines

FIRE LANE SIGNS
FIRE LANE AND ACCESS ROADS ON
PRIVATE COMMERCIAL AND INDUSTRIAL PROPERTY

OPTION #1 – "NO PARKING" Signs
Sign "A" Requirements:

Signs are required within three (3) feet of each end of curbed area and spaced a maximum of fifty (50) feet apart thereafter.

In addition, one (1) sign is required for each island adjacent to a fire lane or access road if the road width is less than 26 feet.

Signs are to face on-coming vehicular traffic.

All curbs and signs are to be maintained by the property owner.

All signs must conform to Menlo Park Fire Protection District Guidelines.

OPTION #2 – "ENTRANCE " Signs
Sign "B" Requirements:

One (1) sign is required at all points of entry to properties with marked parking stalls.

Signs are to face on-coming vehicular traffic

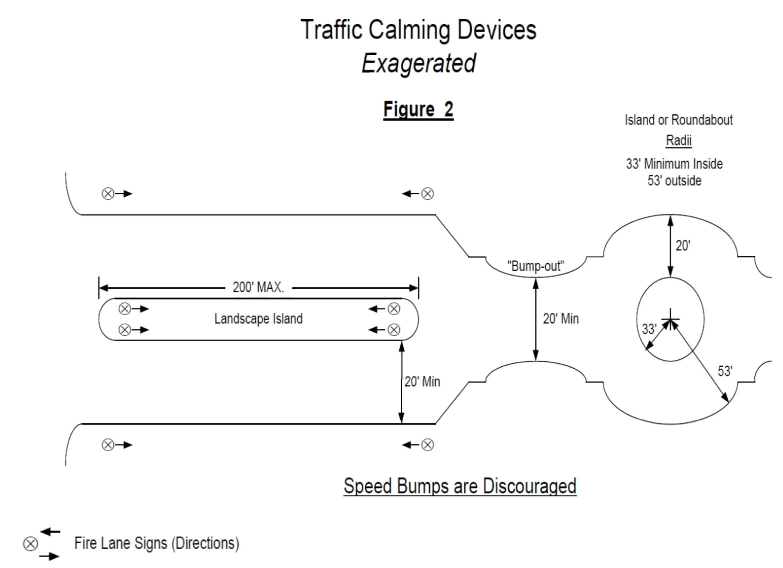
All curbs adjoining fire lanes or posted areas are required to be painted red.

All curbs and signs are to be maintained by the property owner.

All signs must conform to Menlo Park Fire Protection District Guidelines

Traffic Calming Devices
Exagerated

Figure 2



Fire Lane Post Installation
(12' x 18')
A. Height of the sign: 7' in sidewalk or pedestrian areas, 5' in all other areas.

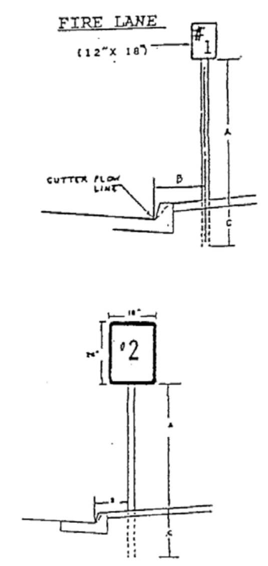
B. Distance from front of curb: 18" with standard curb, 24" with rolled curb, to center of post.

C. Depth of sign base: 24" minimum embedment.

NOTE: Signs may be mounted to an existing post or on a building that is no more than 24" from curb or edge of road surface.

FIRE LANE SIGN POST INSTALLATION

This Standard defines the Menlo Park Fire Protection District minimum requirements for the installation of fire lane signpost installations.



POST INSTALLATION – Sign #1

A = 7' in sidewalk or pedestrian areas
5' in all other areas
B = 18" with standard curb
24" with rolled curb to center of post
C = 24" minimum embedment

NOTE: Signs may be mounted on existing posts or buildings, if post or building is no more than 24" From curb or edge of road surface.

SIGN AND POST INSTALLATION – sign #2

A = 7' in sidewalk or pedestrian area
3' in all other areas
B = 18" standard curb
24" rolled curb
C = 24" minimum embedment

NOTE: Signs may be mounted on entrance gates, buildings, or existing posts if the above are within 24" of the curb or edge of road surface.

MENLO PARK FIRE PROTECTION DISTRICT
APPROVED FIRE LANE SIGNS

The following signs are approved by the Menlo Park Fire Protection District for fire lanes and access roads on private commercial and industrial properties:

FIRE LANE SIGN "A"

12" X 18"
Red Letters on White
Not Reflectorized
.063 Guage

ENTRANCE SIGN "B"

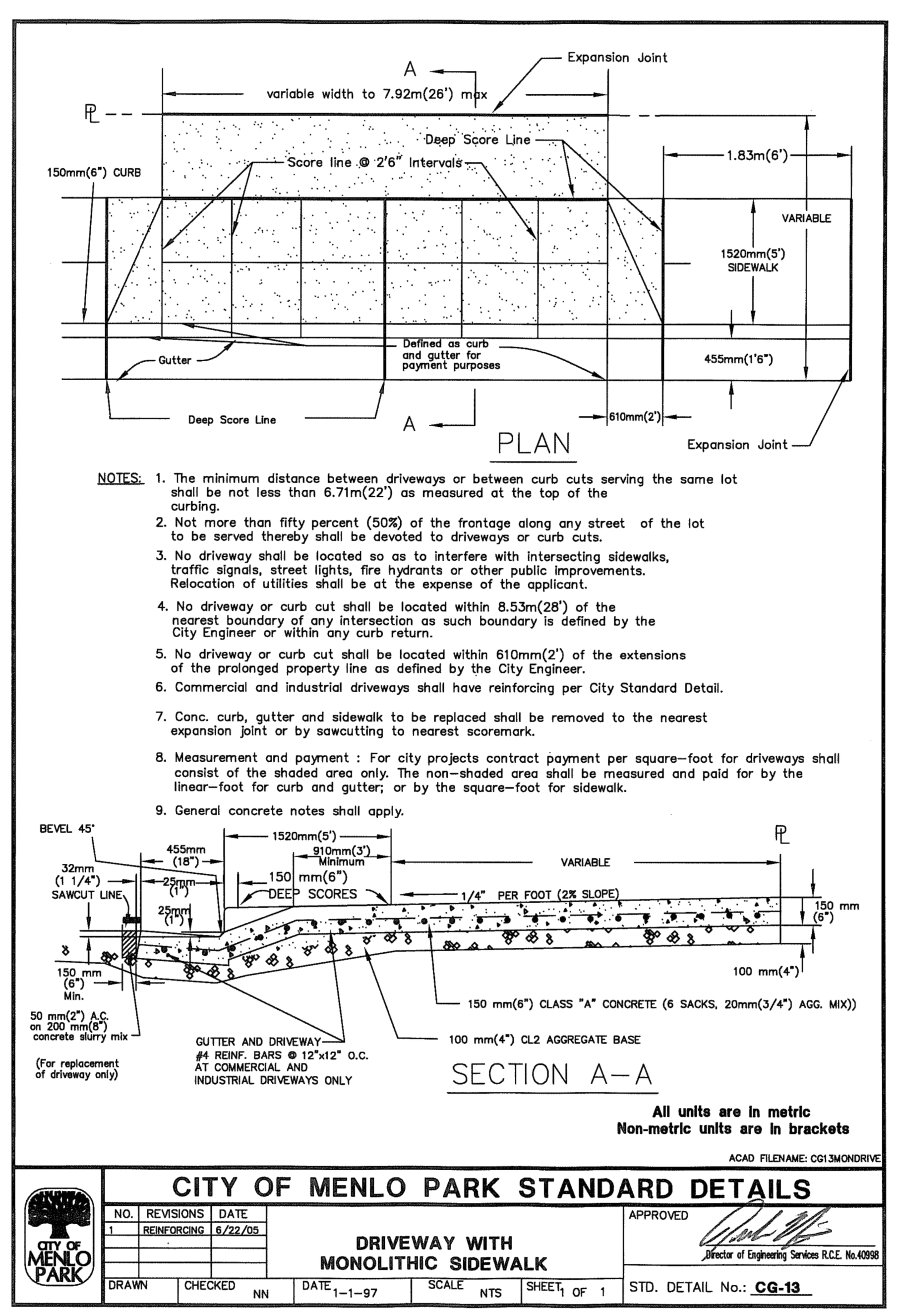
18" X 24"
Red Letters on White
Not Reflectorized
.80 Guage

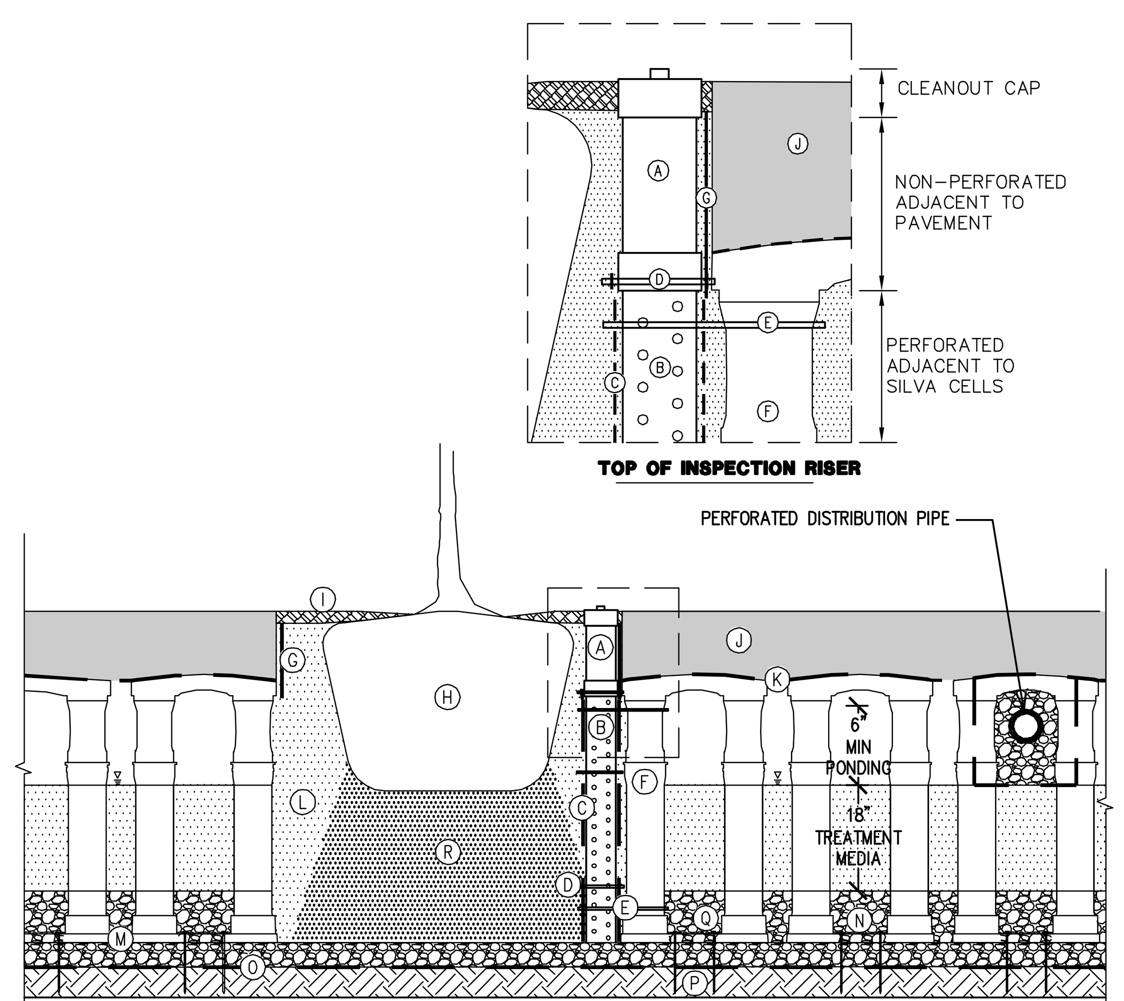
NOTE: All information on signs must appear as shown.

TOWING OF VEHICLES FROM FIRE LANES ON PRIVATE PROPERTY BY THE PROPERTY OWNER

The owner of a private property containing a fire lane may have a vehicle towed from a fire lane on their property. The owner of the property usually contracts with a private towing company in advance. The following are the requirements for a property owner to tow a vehicle from a fire lane on his/her property.

1. Signs must be in place before an owner may tow. The signs must be displayed in plain view at all entrances to the property.
   - The sign must be not less than 12x18 inches in size.
   - Lettering must not be less than one inch in height.
   - Signs must clearly state that stopping in a fire lane is prohibited.
   - The sign must indicate that vehicles will be removed at the owner's expense.
   - The sign must contain the telephone number of the local traffic law enforcement agency.
   - The sign must contain the name and telephone number of each towing company that is party to a written agreement with the property owner.
2. The California Vehicle Code, Section 22658, requires the owner of the property to notify the local traffic law enforcement agency within one hour of towing.
3. Fire lanes shall be marked according to California Vehicle Code Section 22500.1, as indicated above.
4. Owners of private property may post NO PARKING signs for various reasons other than a fire lane and have vehicles removed. Refer to the California Vehicle Code, Section 22658.





KEY PLAN

(A) INSPECTION RISER WITH REMOVABLE CAP OR PLUG, NON-PERFORATED ADJACENT TO PAVEMENT SECTION
(B) INSPECTION RISER, PERFORATED ADJACENT TO SILVA CELLS
(C) GEOTEXTILE, PER PROJECT SPECIFICATIONS.
(D) CABLE TIE TO SECURE GEOTEXTILE TO PERFORATED PIPE
(E) CABLE TIE TO SECURE PERFORATED PIPE TO ADJACENT SILVA CELL
(F) SILVA CELL SYSTEM (DECK, BASE, AND POSTS)
(G) DEEPROOT ROOT BARRIER (DEPTH PER PROJECT SPECIFICATIONS)
(H) TREE ROOT PACKAGE, SIZE VARIES
(I) 1" – 2" MULCH, PLACED IN TREE OPENING
(J) SILVA CELL STANDARD PAVEMENT PROFILE, SEE NOTE 1
(K) PERMEABLE GEOTEXTILE, PER PROJECT SPECIFICATIONS
(L) PLANTING SOIL, PER PROJECT SPECIFICATIONS. COMPACTED TO 70–80% PROCTOR.
(M) 1" – 4" SPACING BETWEEN SILVA CELLS AT BASE
(N) 12" MIN CALTRANS CLASS II PERMEABLE AGGREGATE BASE, COMPACTED TO 95% PROCTOR
(O) GEOTEXTILE, TO PROVIDE SEPARATION BETWEEN SUBGRADE AND AGGREGATE BASE
(P) SUBGRADE, COMPACTED TO 95% PROCTOR
(Q) PIN, PER SILVA CELL SPECIFICATIONS, TO KEEP CELLS IN PLACE DURING CONSTRUCTION
(R) PLANTING SOIL BELOW TREE ROOT PACKAGE, COMPACTED TO 85–90% PROCTOR

NOTES

1. SEE LANDSCAPE DRAWINGS FOR PAVEMENT INFORMATION.
2. SHOWN HERE ARE 3x SILVA CELLS.
3. SILVA CELL LAYOUT SHOWN HERE IS NOT PRESCRIPTIVE AND WILL VARY PER PROJECT SPECIFICATIONS.
4. SILVA CELL SUPPLEMENTAL DETAILS SHALL BE USED IN CONJUNCTION WITH SILVA CELL STANDARD DETAILS.
5. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
6. DO NOT SCALE DRAWINGS.

1 SILVA CELL - BIORETENTION

MITHŪN
SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344
SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

BKF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS
1730 N. FIRST STREET,
SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
www.bkf.com

PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

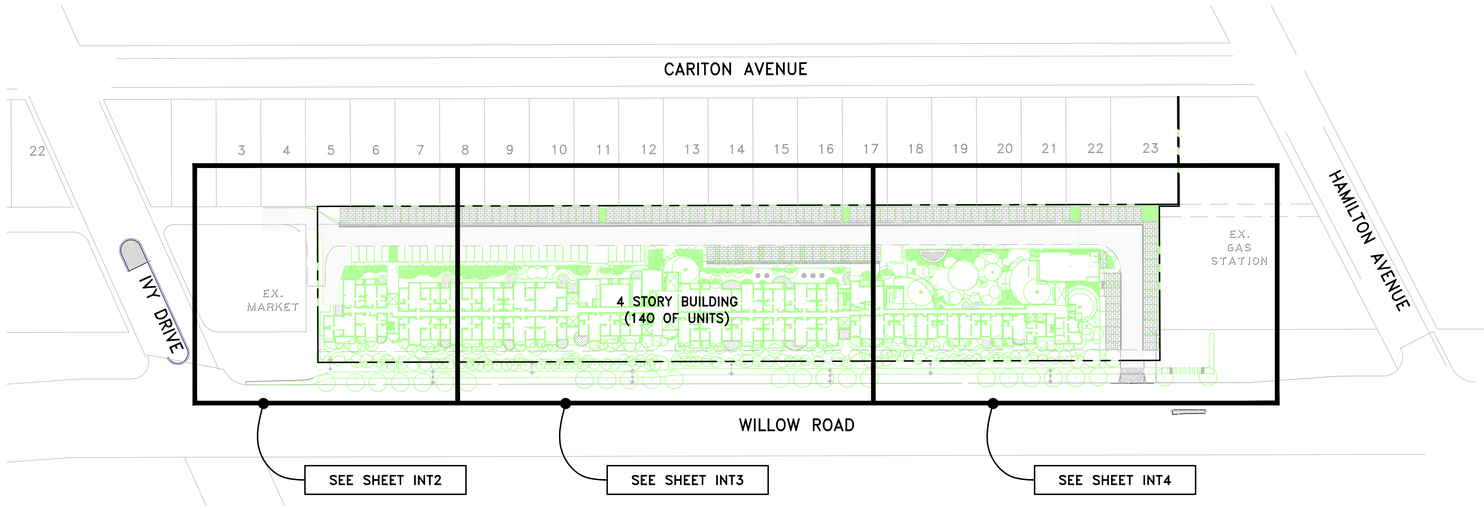
PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

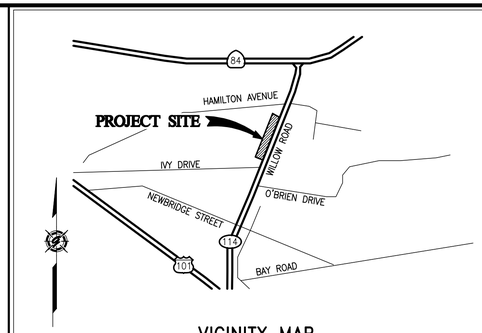
TITLE
CONSTRUCTION DETAILS
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C7.03

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION

MIDPEN HOUSING
GATEWAY FAMILY HOUSING
1300 WILLOW ROAD
MENLO PARK, CALIFORNIA
(JOINT TRENCH INTENT - NOT FOR CONSTRUCTION)





VICINITY MAP
NOT TO SCALE

INDEX MAP

80 0 40 80 160
(IN FEET)
1 INCH = 80 FT.

NOTE

PLEASE VERIFY THAT THE SERVICE POINTS IN THIS DRAWING MATCH YOUR DESIGN. IF THERE ARE ANY DISCREPANCIES, PLEASE CONTACT THE PROJECT MANAGER IN OUR OFFICE.

NOTE TO UTILITIES:

PLEASE INDICATE TIE-IN POINTS ON INTENT RESPONSE

PRELIMINARY PLANS NOT FOR CONSTRUCTION

(PROGRESS SET)

REVISIONS

SYMBOL	DATE	DESCRIPTION	APPROVED

GIACALONE DESIGN SERVICES, INC.
5820 STONERIDGE MALL RD., #345 | PLEASANTON, CA 94588
925.467.1740 | WWW.GIACALONEDESIGN.COM

JOINT TRENCH INTENT TITLE SHEET

MIDPEN HOUSING
GATEWAY FAMILY HOUSING
1300 WILLOW ROAD
MENLO PARK CALIFORNIA

PROJECT MANAGER: D. CROWFOOT
DRAWN BY: M. ALHUSSEINI
LEAD DRAFTER: D. SHAY
SCALE: 1"=80'
JOB NUMBER: 18-102
DATE LAST MODIFIED: 01-21-19
SHEET INT1
OF 4 SHEETS

PROJECT TEAM CONTACTS

COMPANY:	CONTACT:	PHONE:
MIDPEN HOUSING	NESREEN KAWAR	650-393-3601
BKF ENGINEERS	COLE GAUMNITZ	408-690-1467
PG&E - SAN CARLOS		
AT&T	DAVE CLARK	408-635-8824
CABLECOM/WAVE	CAMERON DIPUTADO/RUSS VASTA	650-533-5293
MITHUN - ARCHITECT	KRISTEN BELT	415-489-4855
MITHUN - LANDSCAPE	TIM MOLLETTE	415-489-4834
GIACALONE DESIGN SERVICES, INC.	DAVID CROWFOOT	925-467-1740

PG&E PM NO.

ELECTRIC:
RULE 15:
RULE 16:
RULE 20:
RELOC:

GAS:
RULE 15:
RELOC:

LATEST FILES RECEIVED

DESCRIPTION:	BY:	DATE:	STATUS:
GAS DESIGN			
ELECTRIC DESIGN			
TELEPHONE LAYOUT			
CATV LAYOUT			
STREET LIGHT PLANS - PUBLIC			
STREET LIGHT PLANS - PRIVATE			
IMPROVEMENT PLANS (ELECTRONIC FILE)	BKF	12-19-18	

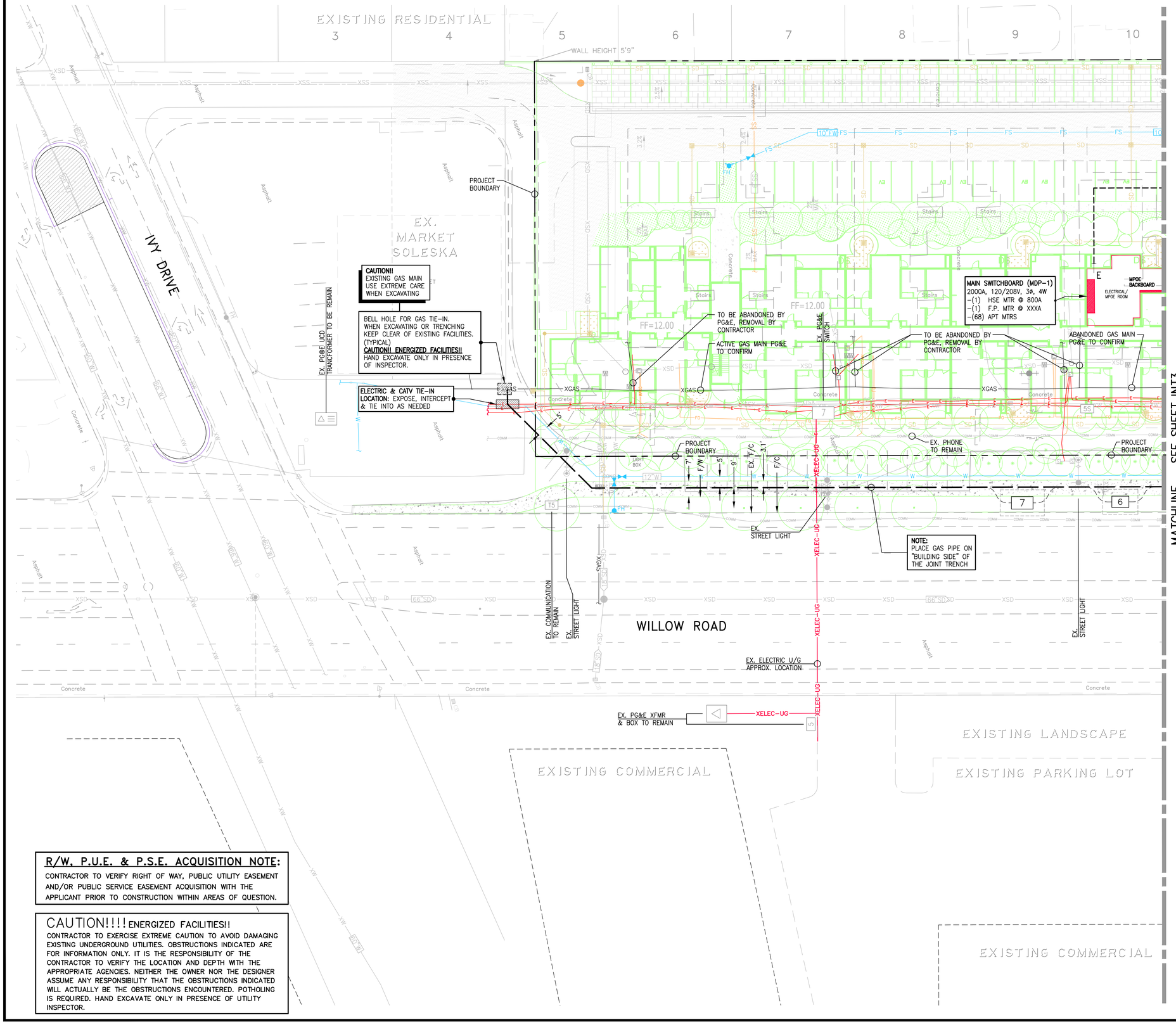
A=Approved • ANS=Approved Not Signed • NA=Not Approved • F=First Submittal • SS=Second Submittal

PROJECT DESCRIPTION & SCOPE

- NEW SERVICE TO (1) BUILDING CONSISTING OF (141)
- PERMANENT RELOCATION OF EXISTING UTILITY LINES
-
-
-
-

SHEET INDEX

SHEET	DESCRIPTION
INT1	JOINT TRENCH INTENT TITLE SHEET
INT2-INT4	JOINT TRENCH INTENT



LEGEND

XJT	EXISTING TRENCH OR UTILITIES
	PROPOSED TRENCH (DISTRIBUTION)
	PROPOSED TRENCH (SERVICE)
	PROPOSED STREET LIGHT TRENCH
	EXISTING UTILITY SPLICE BOX
6	4'x6'6"x5' PG&E BOX
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	90"x106" PG&E PAD MOUNT TRANSFORMER
	EXISTING STREET LIGHT
	EXISTING POST TOP STREET LIGHT
	EXISTING UTILITY POLE
	EXISTING UTILITY POLE GUY ANCHOR
F	PG&E SKETCH LOCATION NUMBER
(F.V.T.)	FULL VEHICULAR TRAFFIC LID
(N.T.S.)	NOT TO SCALE
(U.O.N.)	UNLESS OTHERWISE NOTED

20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

R/W, P.U.E. & P.S.E. ACQUISITION NOTE:
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CAUTION!!!! ENERGIZED FACILITIES!!
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NOTE
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NOTE TO UTILITIES:
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PRELIMINARY PLANS NOT FOR CONSTRUCTION

TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE
811
CALL BEFORE YOU DIG

REVISIONS			
SYMBOL	DATE	DESCRIPTION	APPROVED

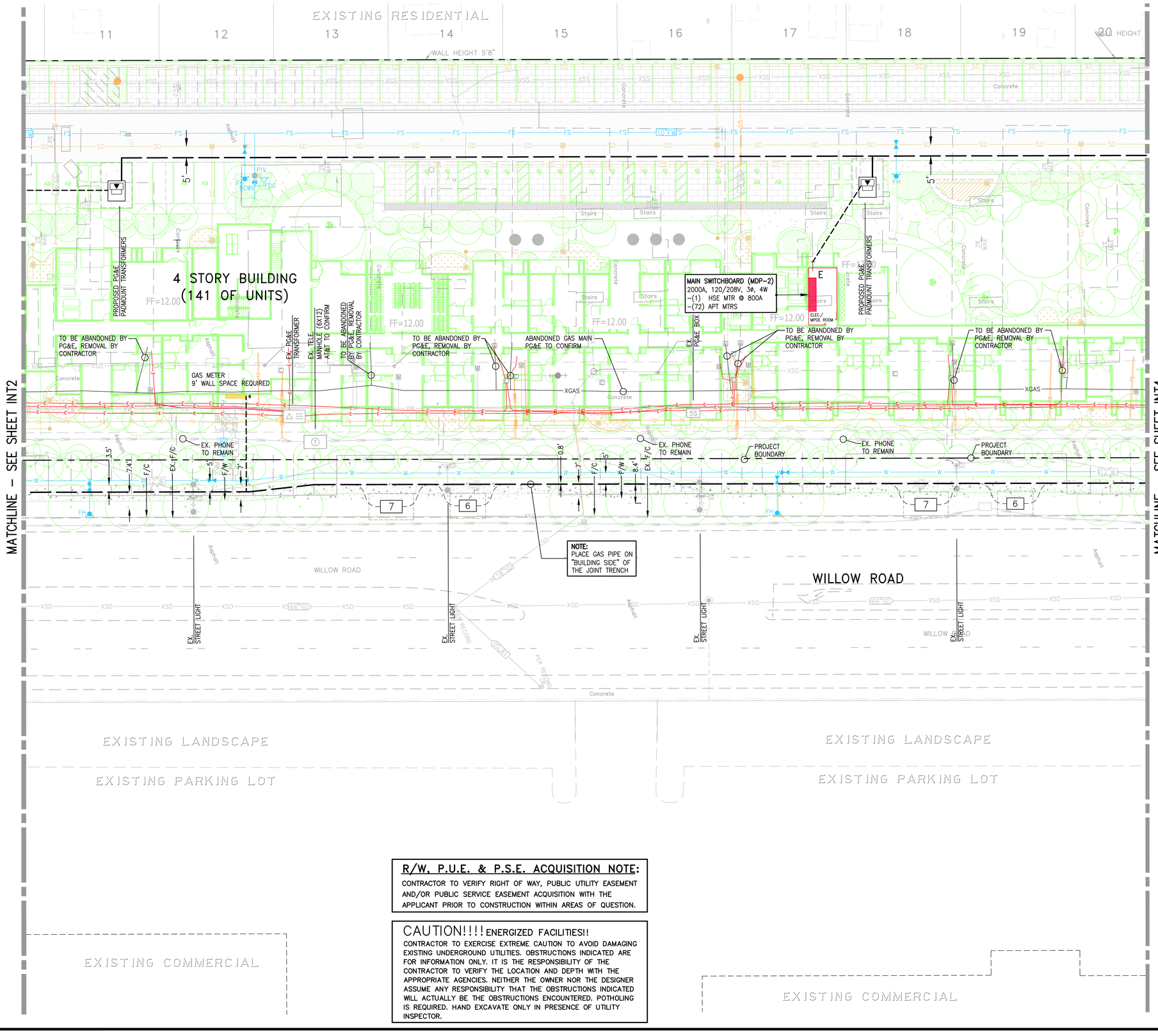
GIACALONE DESIGN SERVICES, INC.
5820 STONERIDGE MALL RD., #345 | PLEASANTON, CA 94588
925.467.1740 | WWW.GIACALONEDESIGN.COM

JOINT TRENCH INTENT

MIDPEN HOUSING
GATEWAY FAMILY HOUSING
1300 WILLOW ROAD
MENLO PARK CALIFORNIA

(PROGRESS SET)

PROJECT MANAGER:	D. CROWFOOT
DRAWN BY:	M. ALHUSSEINI
LEAD DRAFTER:	D. SHAY
SCALE:	1"=20'
JOB NUMBER:	18-102
DATE LAST MODIFIED:	01-21-19
SHEET	INT2
OF	4 SHEETS



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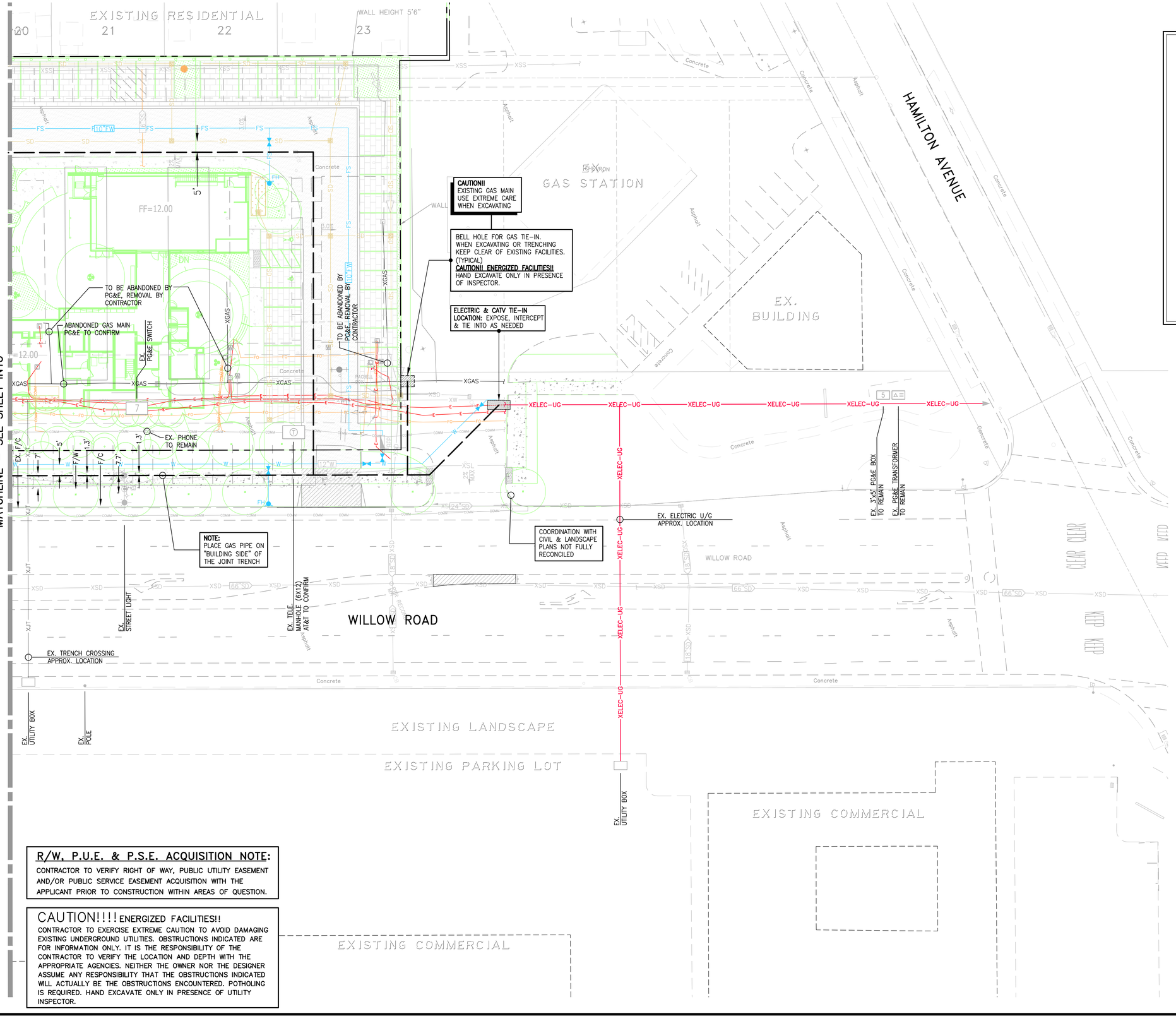
5820 STONERIDGE MALL RD., #345 | PLEASANTON, CA 94588
925.467.1740 | WWW.GIACALONEDESIGN.COM

(PROGRESS SET)

JOINT TRENCH INTENT

MIDPEN HOUSING
GATEWAY FAMILY HOUSING
1300 WILLOW ROAD
MENLO PARK CALIFORNIA

PROJECT MANAGER:	D. CROWFOOT
DRAWN BY:	M. ALHUSSEINI
LEAD DRAFTER:	D. SHAY
SCALE:	1"=20'
JOB NUMBER:	18-102
DATE LAST MODIFIED:	01-21-19
SHEET	INT3
OF	4 SHEETS



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(U.O.N.)	UNLESS OTHERWISE NOTED

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(IN FEET)
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PRELIMINARY PLANS NOT FOR CONSTRUCTION

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811
CALL BEFORE YOU DIG

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SYMBOL	DATE	DESCRIPTION	APPROVED

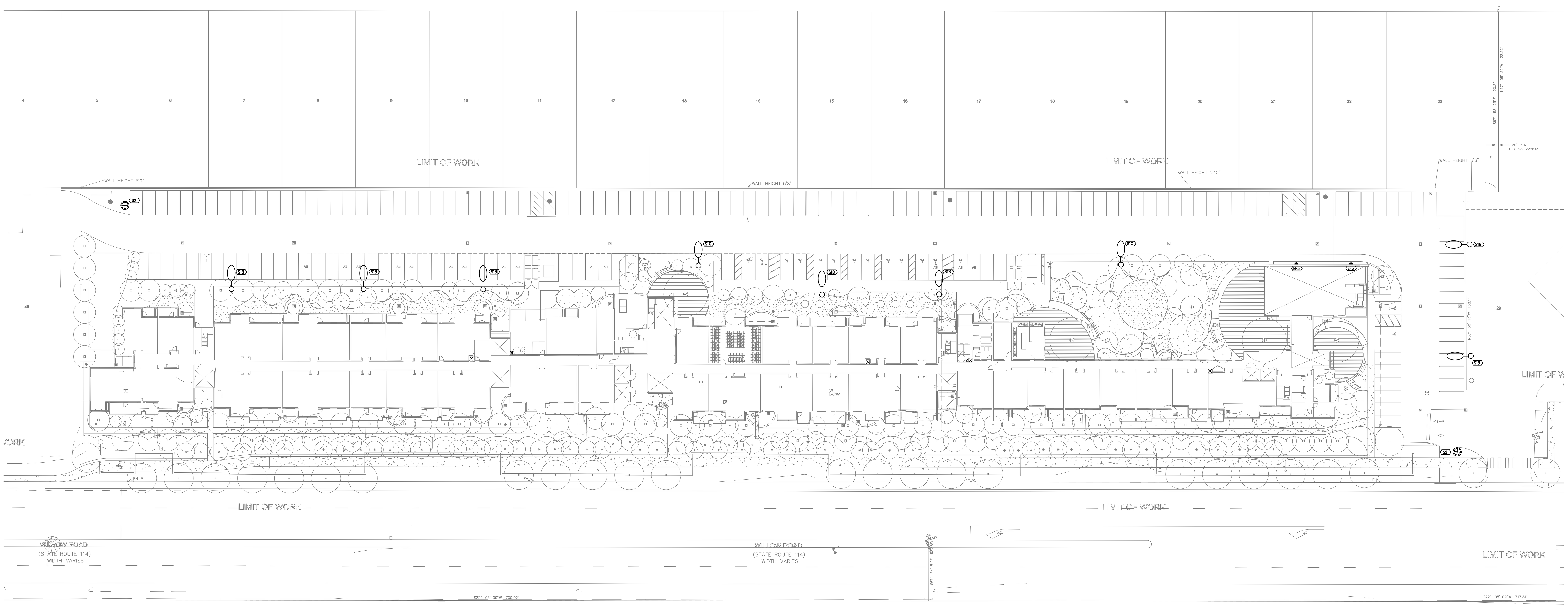
GIACALONE DESIGN SERVICES, INC.
5820 STONERIDGE MALL RD., #345 | PLEASANTON, CA 94588
925.467.1740 | WWW.GIACALONEDESIGN.COM

JOINT TRENCH INTENT

MIDPEN HOUSING
GATEWAY FAMILY HOUSING
1300 WILLOW ROAD
MENLO PARK CALIFORNIA

(PROGRESS SET)

PROJECT MANAGER:	D. CROWFOOT
DRAWN BY:	M. ALHUSSEINI
LEAD DRAFTER:	D. SHAY
SCALE:	1"=20'
JOB NUMBER:	18–102
DATE LAST MODIFIED:	01–21–19
SHEET	INT4
OF	4 SHEETS



SITE LIGHTING

SCALE: 1" = 20'

FLAG NOTES

1. ALL EXTERIOR LIGHTING TO BE CONTROLLED BY A PHOTOCELL.
2. NOT USED.

SHEET NOTES

1. EXTERIOR EGRESS LIGHTING TO BE POWERED FROM LIGHTING INVERTER.
2. POLE LIGHTS TO BE FULL CUTOFF AND HAVE BUG RATING SPECIFIED WITH CEC AND CAL-GREEN REQUIREMENTS.

NOT FOR CONSTRUCTION

MITHŪN

SEATTLE / SAN FRANCISCO

660 Market Street, #300
San Francisco, CA 94104

T 415.956.0688
F 415.956.1688

mithun.com

EMERALD CITY ENGINEERS, INC
21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
SITE LIGHTING

PROJECT NO.

DATE
01/23/19

SHEET NUMBER
E1.00

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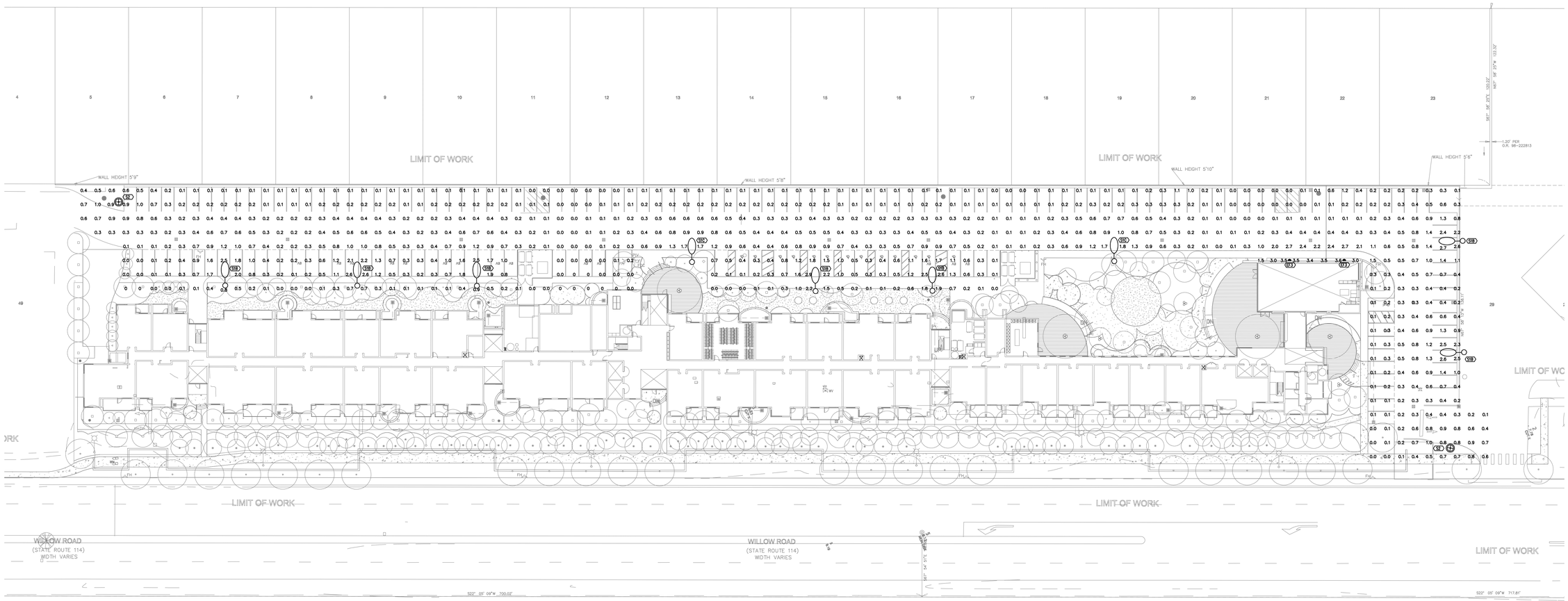
DGALLEGOS J:\2083-003 1283 & 1300 WILLOW, MENLO PARK, CA\DWG\E100 SITE LIGHTING.DWG 01-18-2019 13:42



SITE PHOTOMETRICS

SCALE: 1" = 20'

General Photometric Schedule

AVERAGE FOOT-CANDLES	0.49
MAXIMUM FOOT-CANDLES	3.6
MINIMUM FOOT-CANDLES	0
MINIMUM TO MAXIMUM FC RATIO	0
MAXIMUM TO MINIMUM FC RATIO	3.57 / 0
AVERAGE TO MINIMUM FC RATIO	0.49 / 0

FLAG NOTES

1. ALL EXTERIOR LIGHTING TO BE CONTROLLED BY A PHOTOCELL.
2. NOT USED.

SHEET NOTES

1. EXTERIOR EGRESS LIGHTING TO BE POWERED FROM LIGHTING INVERTER.
2. POLE LIGHTS TO BE FULL CUTOFF AND HAVE BUG RATING SPECIFIED WITH CEC AND CAL-GREEN REQUIREMENTS.

NOT FOR CONSTRUCTION

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DGALLEGOS J:\2083-003 1353 & 1300 WILLOW, MENLO PARK, CA\DWG\E101 SITE PHOTOMETRICS.DWG 01-16-2019 13:41

MITHUN

SEATTLE / SAN FRANCISCO

660 Market Street, #300
San Francisco, CA 94104

T 415.956.0688
F 415.956.1688

mithun.com

EMERALD CITY ENGINEERS, INC
21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
SITE PHOTOMETRICS

PROJECT NO.

DATE
01/23/19

SHEET NUMBER
E1.01

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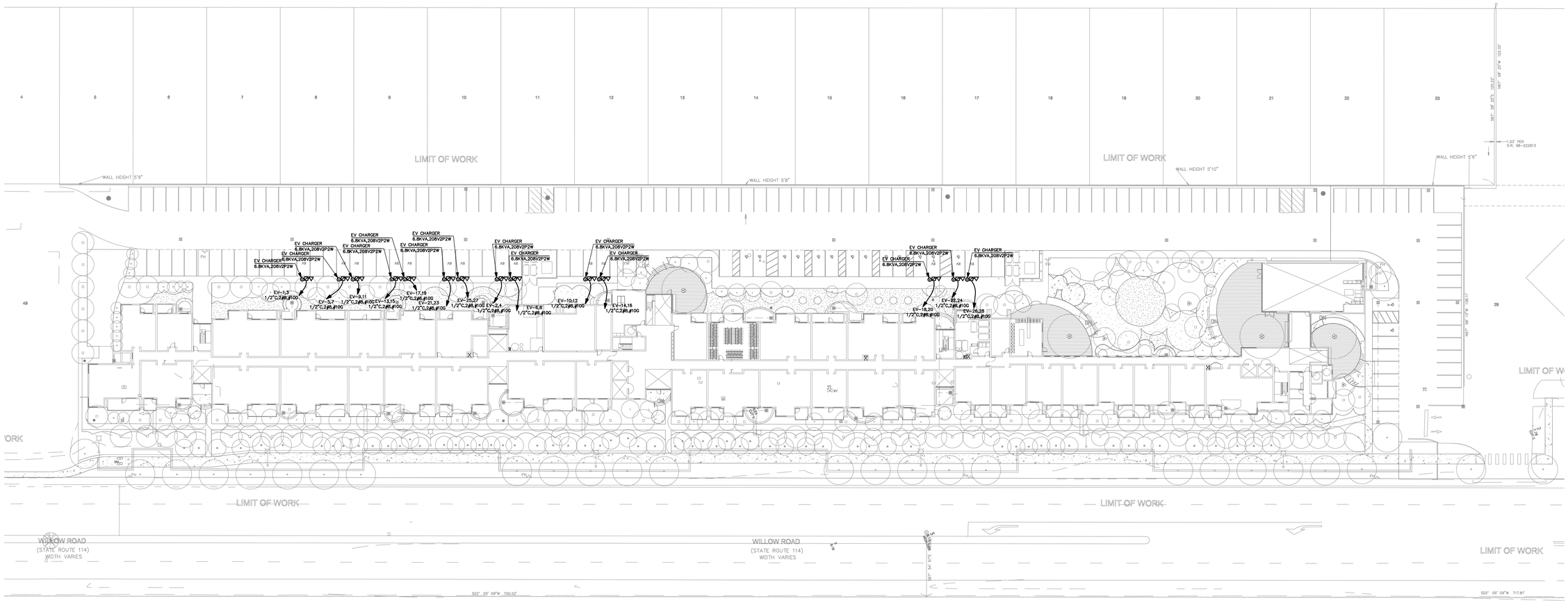

SITE POWER

SCALE: 1" = 20'

FLAG NOTES
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2 NOT USED.

SHEET NOTES
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NOT FOR CONSTRUCTION

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DGALLEGOS J:\2083-003 1283 & 1300 WILLOW, MENLO PARK, CA\DWG\E102 SITE POWER.DWG 01-18-2019 13:41

MITHUN

SEATTLE / SAN FRANCISCO

660 Market Street, #300
San Francisco, CA 94104

T 415.956.0688
F 415.956.1688

mithun.com

EMERALD CITY ENGINEERS, INC
21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. TRENDA
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
SITE POWER

PROJECT NO.

DATE
01/23/19

SHEET NUMBER
E1.02

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PROGRESS SET

Hiram Banks Lighting Design

The work contained in this document is the property of Hiram Banks Lighting Design and may not be modified in any manner without expressed written permission. This includes, but is not limited to quantity, spacing, and type of lighting equipment.

(1) 208V TRANSFORME

BIORETENTION PLANTERS TYP.

FENCED PET RELIEF AREA

PAVING SMOKING AREA TYP

NEW STREET TREES TYP

EXISTING

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11

LP.00A

FITNESS WOOD DECK W/
MOVABLE TABLES AND CHAIRS

RAISED VEGETABLE
GARDEN PLANTERS

STABILIZED DECOMPOSED GRANITE

CUSTOMIZED WOOD B

(1) 208V TRANSF

ER

S

DS

S

UP

DN

DS

DS

S

S

G STREET TREES PROTECTED IN PLACE

PEDESTRIAN CONCRETE S

PROGRESS SET

Hiram Banks Lighting Design

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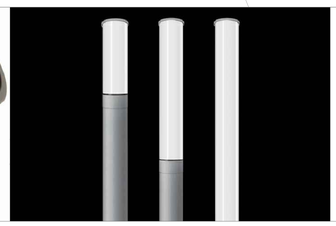
L1

L2

L3

L4


L5

L6

L7

L8

L9

L10

L11

LP.00B

PANEL (6X8')

NSFORMER

20' CITY OF OF MENLO PARK P.U.E. PER PARCEL 3, O.R. 86-052876

D BENCH

WOOD DECK W/ MOVABLE TABLES AND CHAIRS

RAINGARDEN

ARTIFICIAL TURF PLAYMOUND

6" CONCRETE CURB

WOOD DECK W/ MOVABLE TABLES AND CHAIRS

CUSTOMIZED WOOD BENCH

BIORETENTION

DN

DN

DN

WOOD DECK W/ MOVABLE TABLES AND CHAIRS

CUSTOMIZED WOOD BENCH

BIORETENTION PLANTER/BENCH

BBQ AREA

BIKE PARKING

E SIDEWALK

STABILIZED DECOMPOSED GRANITE PATH

PLANTED BERM

SEE C
EMEER
APRON

PROGRESS SET

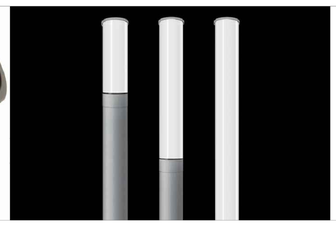
Hiram Banks Lighting Design

L1

L2

L3

L4


L5

L6

L7

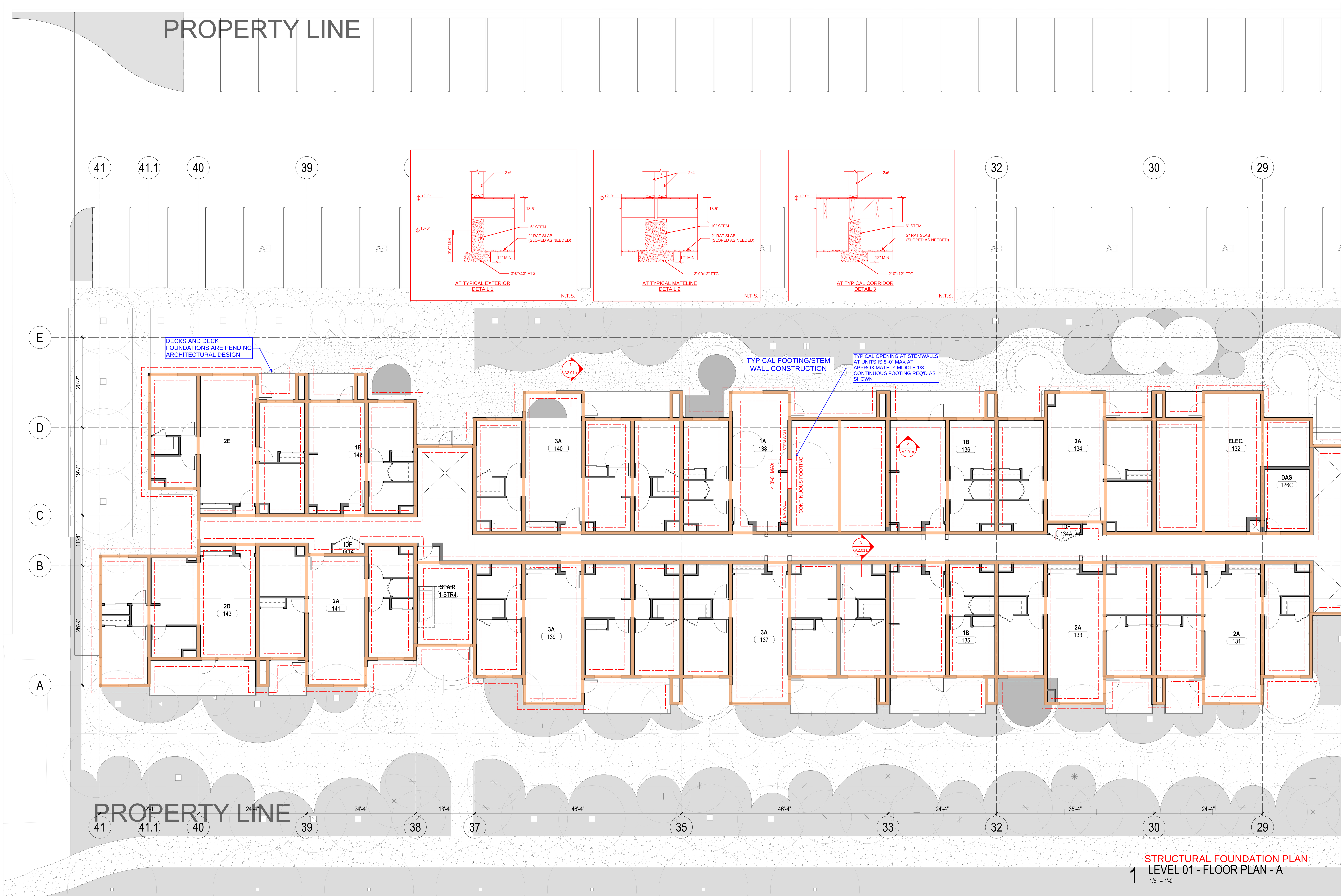
L8

L9

L10

L11

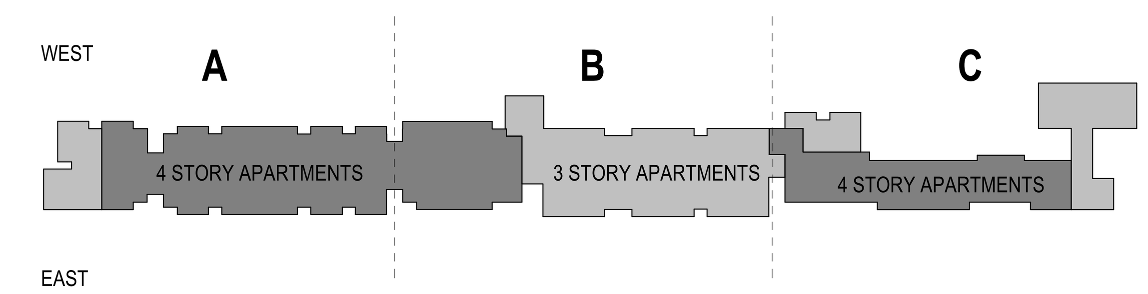
LP.00C

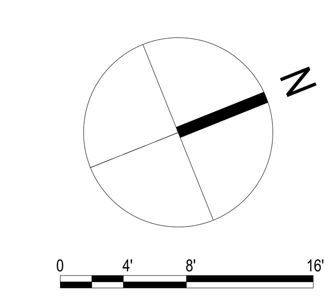


STRUCTURAL FOUNDATION PLAN

1 LEVEL 01 - FLOOR PLAN - A

1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
**1345 WILLOW ROAD
MENLO PARK, CA**

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
STRUCTURAL FOUNDATION PLAN
A

PROJECT NO.
18141-0349

DATE
07/24/18

SHEET NUMBER
S2.01A

ORIGINAL SHEET SIZE 30" x 42"

10/3/2018 5:54:08 PM

10/3/2018 5:54:12 PM

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR
1-STR2

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

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PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
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TITLE
STRUCTURAL FOUNDATION PLAN
B

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.01B

ORIGINAL SHEET SIZE 30" x 42"

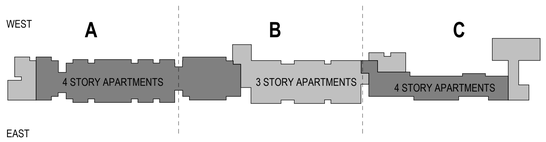
28 27 26 25 23 22 21 20 19 18 17 16 15 14

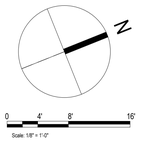
E D C B A

ANTICIPATED RECESSED 4" SLAB ON GRADE
TRASH
STEM WALL, TYP
MECH
11 7/8" TJI 230 @ 12" OC
MAINT
130A
TEEN CENTER/CRAFT
11 7/8" TJI 230 @ 16" OC
LOBBY
126
NOTE: WE ANTICIPATE LARGER FOOTINGS AT ASSEMBLY AND STORAGE AREAS, TYPICAL
FLOOR FRAMING AT MODULAR UNITS IS SAME AS FLOORS ABOVE
11 7/8" TJI 560 @ 12" OC
30'-1 3/8"
FITNESS
124
11 7/8" TJI 230 @ 12" OC
23'-3 5/8"
24'-11 3/8"
11 7/8" TJI 230 @ 12" OC
BIKES
122
34'-3 1/2"
84 Bikes
43'-6"
11 7/8" TJI 230 @ 16" OC
IDF
123A
2A
120
1A
118
2A
116
1A
114
3A
129
1A
127
ELEVATORS
127B
PERIMETER FND WALL AT ELEVATOR WITH PAD FTG BELOW TO REQ'D ELEVATOR DEPTH
1A
125
2A.1
123
2A
121
1A
119
2A
117
1A
115

24'-4" 22'-0" 24'-4" 23'-4" 17'-6 41/64" 13'-1 23/64" 22'-0" 24'-4" 24'-4" 22'-0" 24'-4" 24'-4" 24'-0 3/4"

STRUCTURAL FOUNDATION PLAN
1 LEVEL 01 - FLOOR PLAN - B
1/8" = 1'-0"





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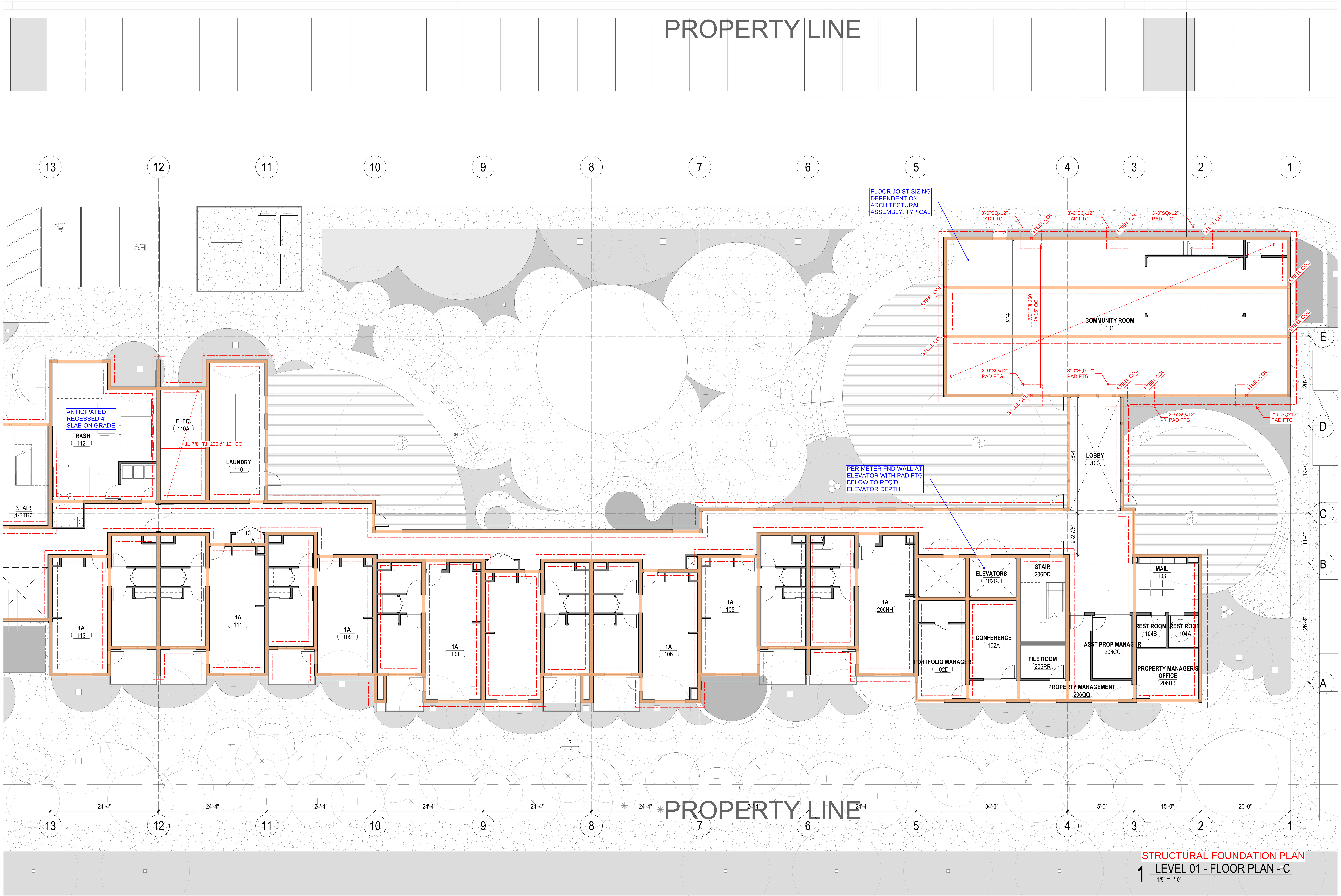
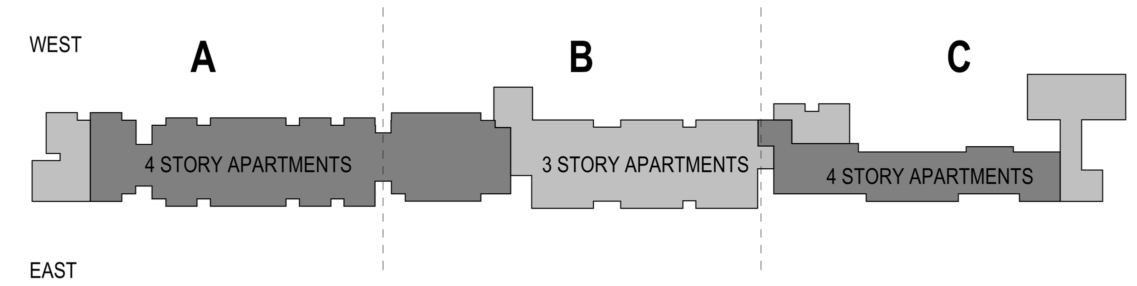


STRUCTURAL FOUNDATION PLAN

1 LEVEL 01 - FLOOR PLAN - C

1/8" = 1'-0"



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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
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TITLE
STRUCTURAL FOUNDATION PLAN
C

PROJECT NO
18141-0349

DATE
07/24/18

SHEET NUMBER
S2.01C

ORIGINAL SHEET SIZE 30" x 42"

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PROPERTY LINE

41 41.1 40 39 38 37 35 33 32 30 29

E D C B A

20'-2" 19'-7" 11'-4" 26'-9"

SIM TO GRID 35

2E 1B 142 2D 143 2A 141 IDF 141A STAIR 1-STR4

3A 140 1A 138 1B 136 2A 134 IDF 134A ELEC. 132 DAS 126C

3A 139 3A 137 1B 135 2A 133 2A 131

(4) MSTC66 (4)MSTC66 W3 W2 W4 W6 (2) MSTC66B3 MSTC52

PROPERTY LINE

24'-4" 24'-4" 13'-4" 46'-4" 46'-4" 24'-4" 35'-4" 24'-4"

39 38 37 35 33 32 30 29

LEGEND

- ROOF FRAMING
- 4TH FLOOR STUD & SHEAR WALL PLAN
- LEVEL 4 FRAMING
- LEVEL 3 CLG
- 2RD FLOOR STUD & SHEAR WALL PLAN
- LEVEL 3 FRAMING
- LEVEL 2 CLG
- 2ND FLOOR STUD & SHEAR WALL PLAN
- LEVEL 2 FRAMING
- LEVEL 1 CLG
- 1ST FLOOR STUD & SHEAR WALL PLAN
- LEVEL 1 FRAMING (NOT SHOWN)

STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 01 - FLOOR PLAN - A
1/8" = 1'-0"

WEST A B C EAST

4 STORY APARTMENTS | 3 STORY APARTMENTS | 4 STORY APARTMENTS

N

0 4' 8' 16'
Scale: 1/8" = 1'-0"

ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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TITLE
LEVEL 01 -
A STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.1A-SW

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR
1-STR2

NO.	DATE	REVISION
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TITLE
LEVEL 01 -
B STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.1B-SW

ORIGINAL SHEET SIZE 30" X 42"

STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 01 - FLOOR PLAN - B
1/8" = 1'-0"

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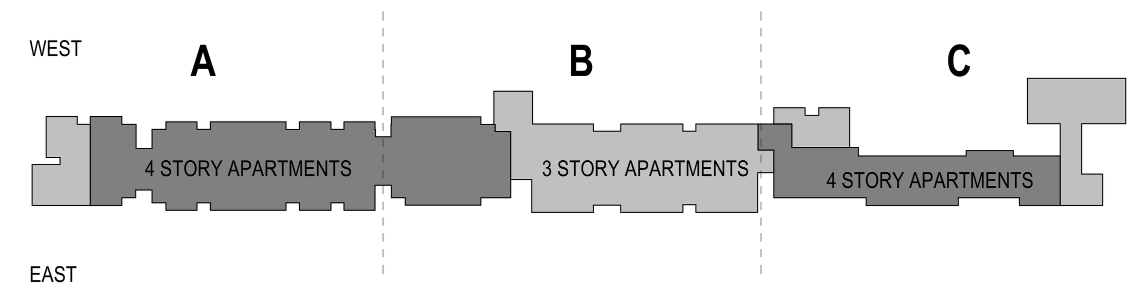
STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 01 - FLOOR PLAN - C

1/8" = 1'-0"



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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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TITLE
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STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349

DATE
07/24/18

SHEET NUMBER
S2.1C-SW

ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR
1-STR2

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

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PROJECT ARCHITECT
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PROJECT DESIGNER

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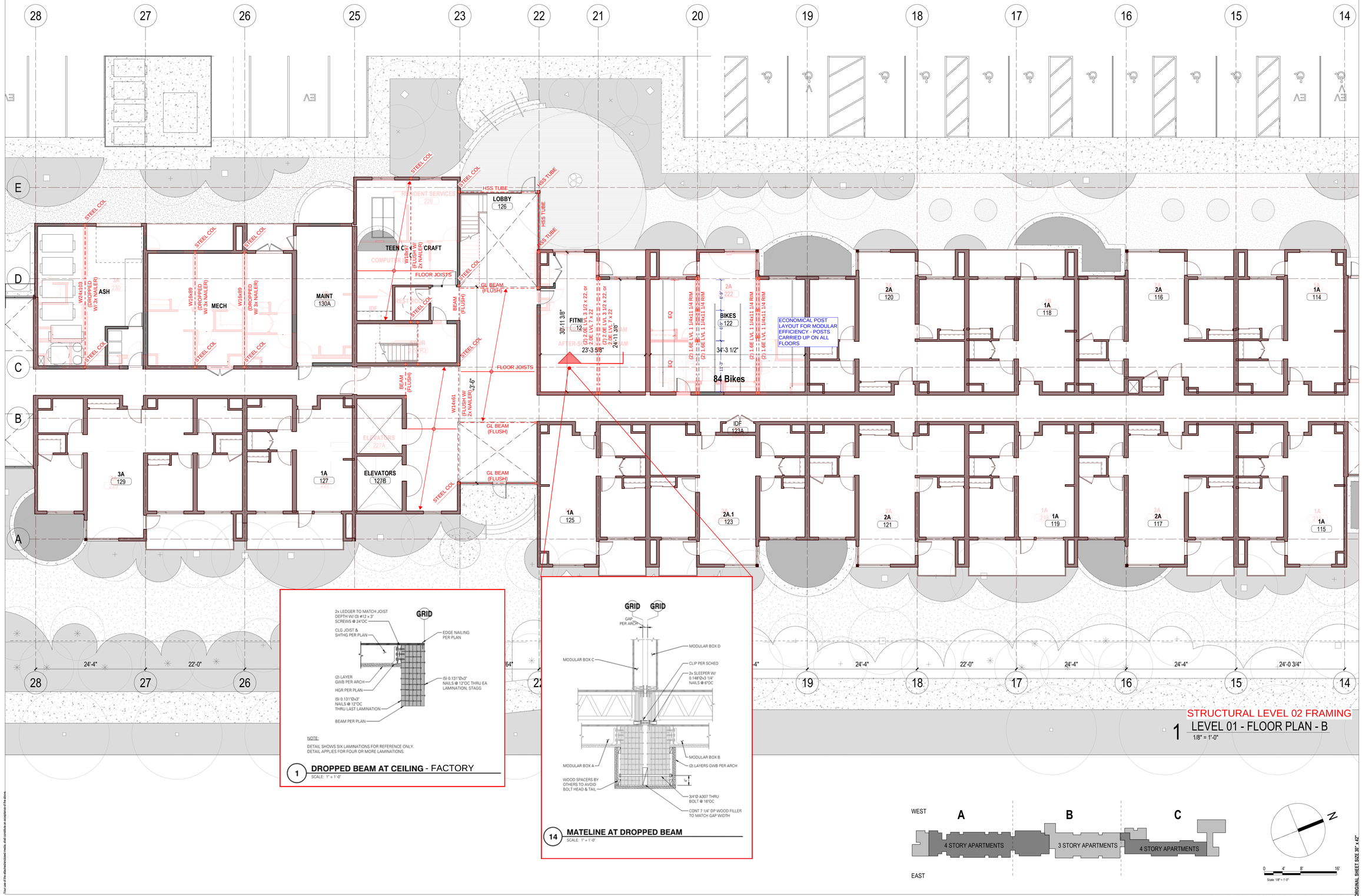

STRUCTURAL LEVEL 02 FRAMING

1 LEVEL 01 - FLOOR PLAN - B
1/8" = 1'-0"

1 **DROPPED BEAM AT CEILING** - FACTORY
SCALE: 1" = 1'-0"

14 **MATELINE AT DROPPED BEAM**
SCALE: 1" = 1'-0"

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TITLE
STRUCTURAL LEVEL 02 FRAMING
B

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.2B-FLR

ORIGINAL SHEET SIZE 30" x 42"

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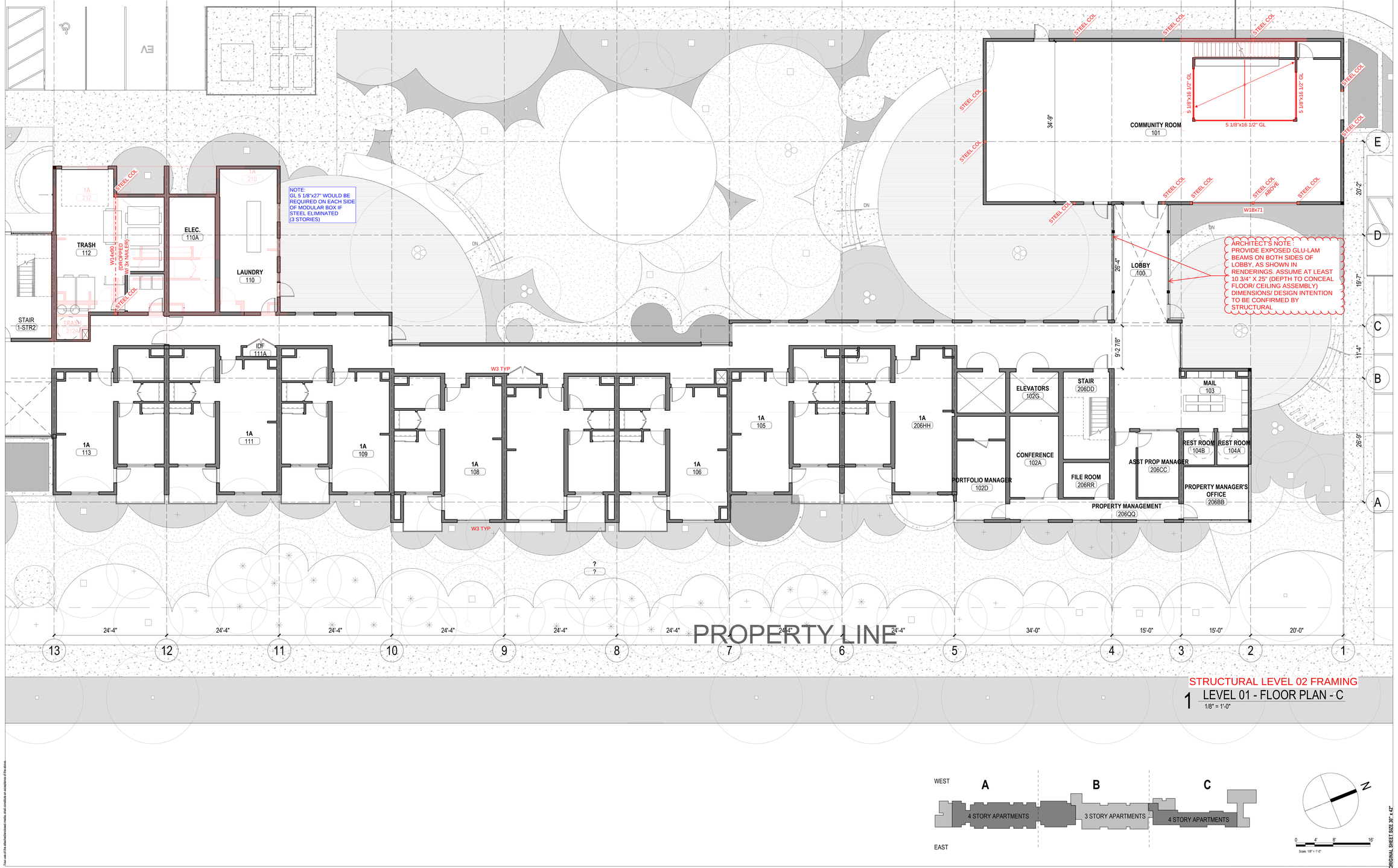
PROPERTY LINE

9'-6" 2'-0"

13 12 11 10 9 8 7 6 5 4 3 2 1



PROPERTY LINE

24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 24'-4" 34'-0" 15'-0" 15'-0" 20'-0"

13 12 11 10 9 8 7 6 5 4 3 2 1

STRUCTURAL LEVEL 02 FRAMING

1 LEVEL 01 - FLOOR PLAN - C

1/8" = 1'-0"

ORIGINAL SHEET SIZE 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
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PROJECT MANAGER
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PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
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TITLE
STRUCTURAL LEVEL 02 FRAMING
C

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.2C-FLR

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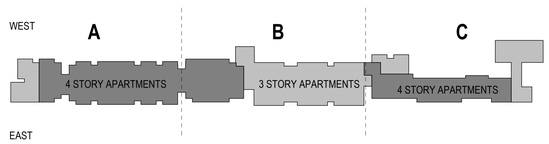
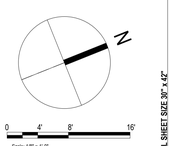
STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 02 - FLOOR PLAN - A

1/8" = 1'-0"





ORIGINAL SHEET SIZE: 36" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

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KB
PROJECT ARCHITECT
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TITLE
LEVEL 02
A STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.2A-SW

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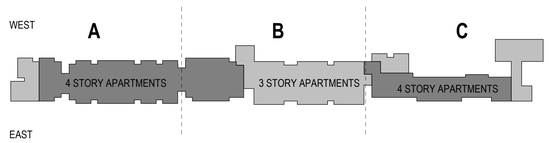
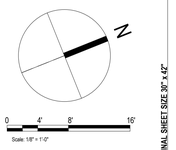
STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 02 - FLOOR PLAN - B

1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
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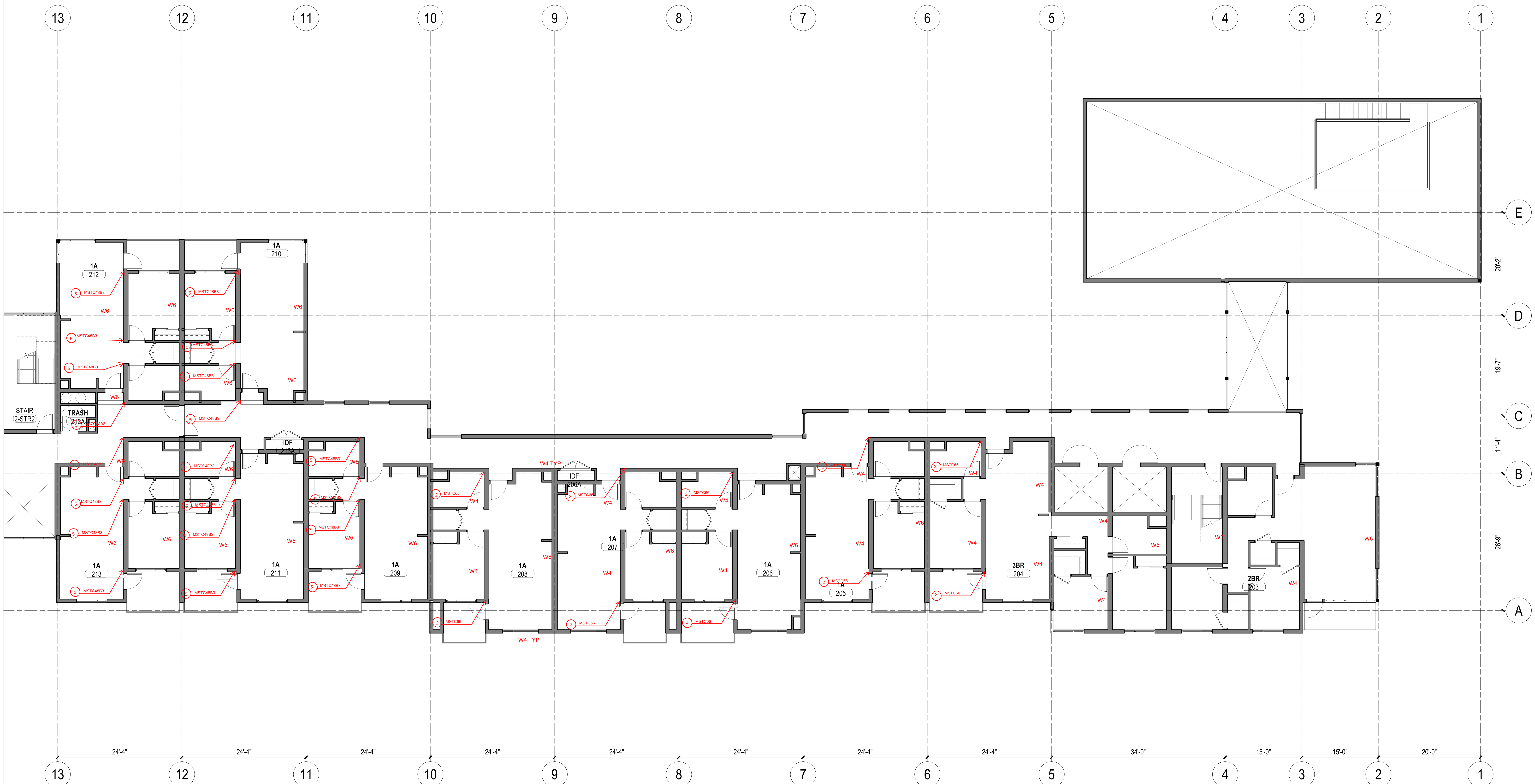
LEVEL 02 - B STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
07/24/18

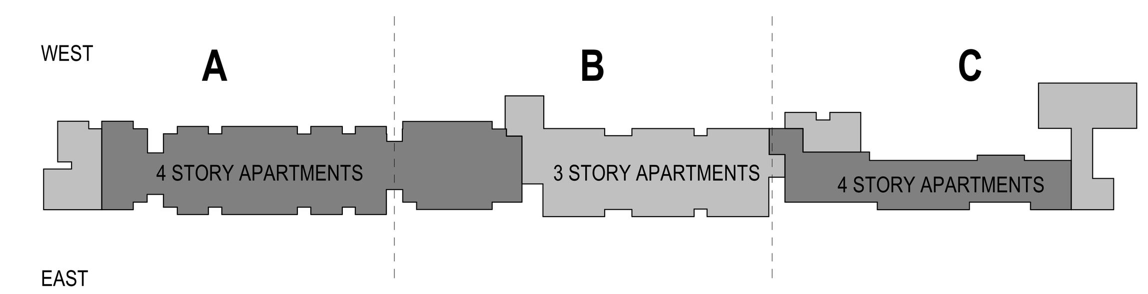
SHEET NUMBER
S2.2B-SW

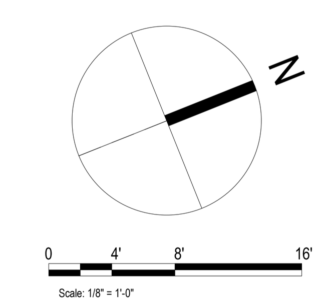


STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 02 - FLOOR PLAN - C

1/8" = 1'-0"





Scale: 1/8" = 1'-0"

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C STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
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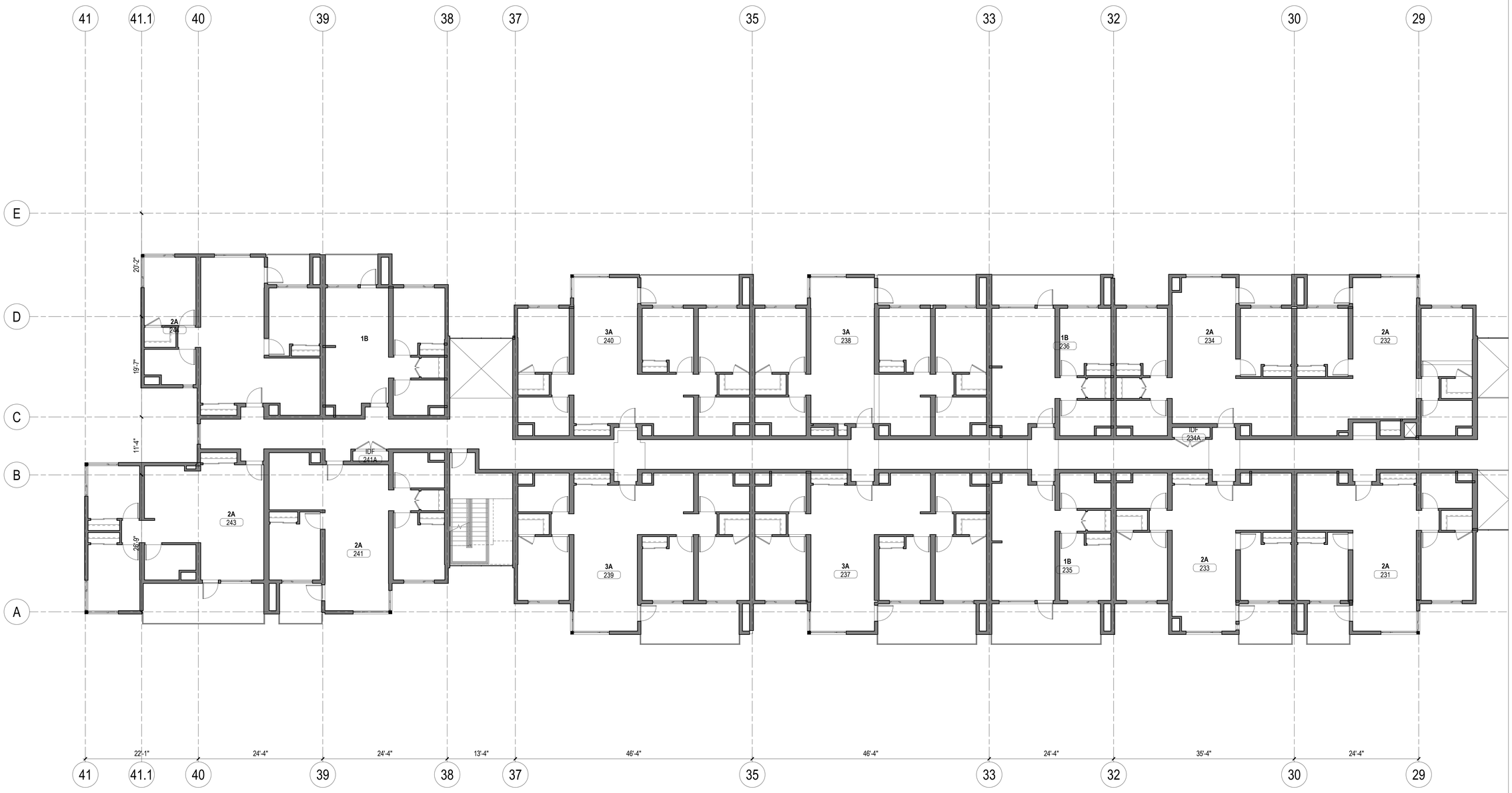
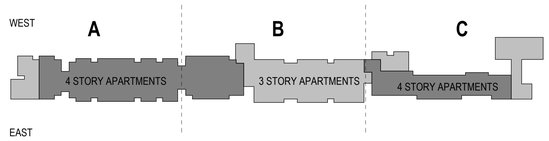
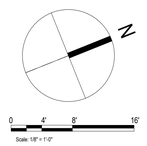


STRUCTURAL LEVEL 03 FRAMING

1 LEVEL 02 - FLOOR PLAN - A

1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

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TITLE
STRUCTURAL LEVEL 03 FRAMING
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PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
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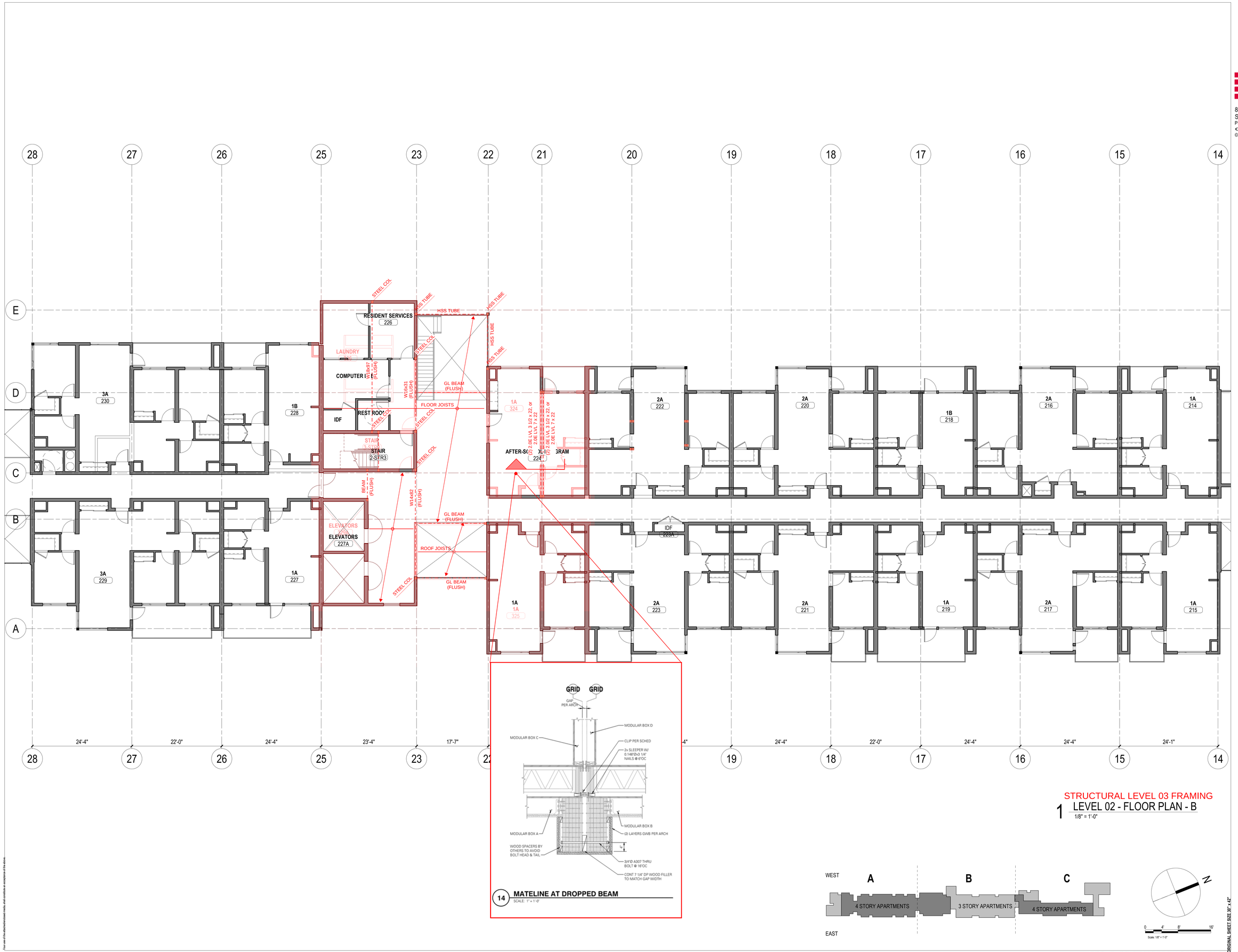

14 **MATELINE AT DROPPED BEAM**
SCALE: 1" = 1'-0"

STRUCTURAL LEVEL 03 FRAMING

1 **LEVEL 02 - FLOOR PLAN - B**
1/8" = 1'-0"

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ORIGINAL SHEET SIZE: 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR 2-STR2

NO.	DATE	REVISION
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PROJECT NO.
18141-0349
DATE
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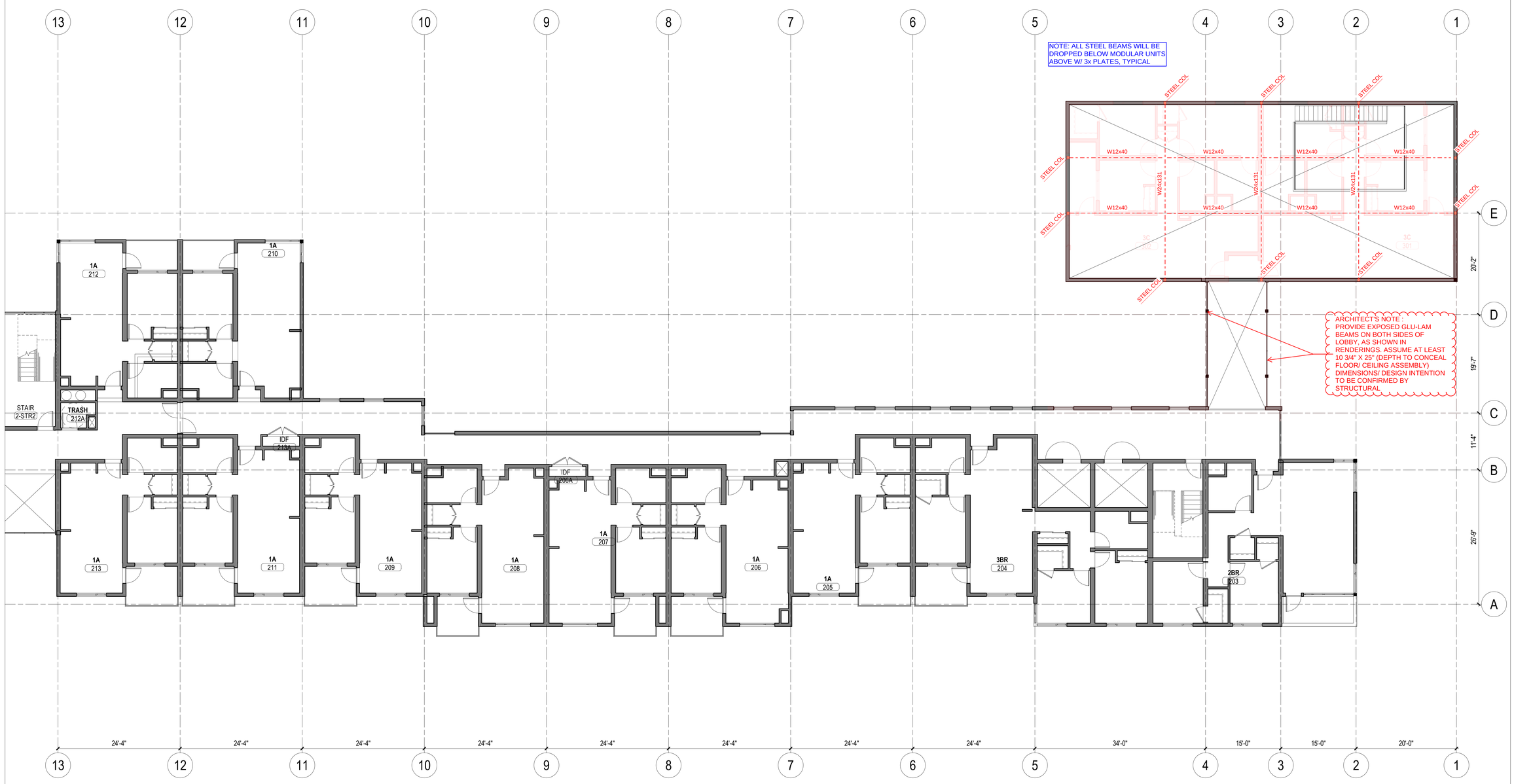
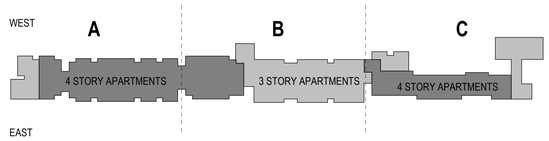
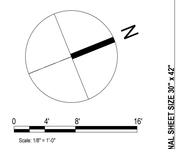


STRUCTURAL LEVEL 03 FRAMING

1 LEVEL 02 - FLOOR PLAN - C
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
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TITLE
STRUCTURAL LEVEL 03 FRAMING
C

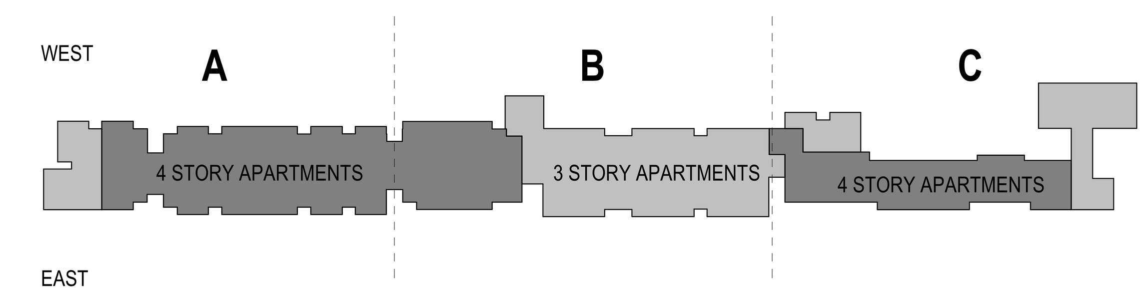
PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.3C-FLR

STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 03 - FLOOR PLAN - A

1/8" = 1'-0"



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MIDPEN HOUSING

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TITLE
LEVEL 03
A STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349

DATE
07/24/18

SHEET NUMBER
S2.3A-SW

ORIGINAL SHEET SIZE 30" x 42"

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1 LEVEL 03 - FLOOR PLAN - B
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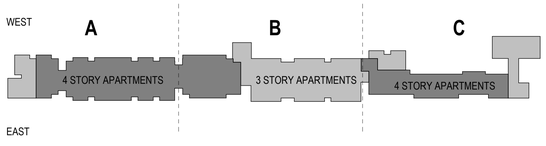

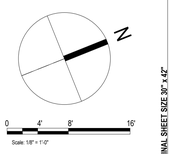

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
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TITLE
LEVEL 03 - B STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO
18141-0349
DATE
07/24/18

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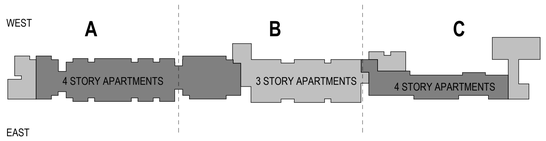
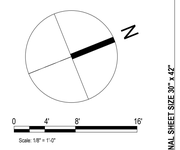
STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 03 - FLOOR PLAN - C
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
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PROJECT ARCHITECT
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TITLE
LEVEL 03 - C STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.3C-SW

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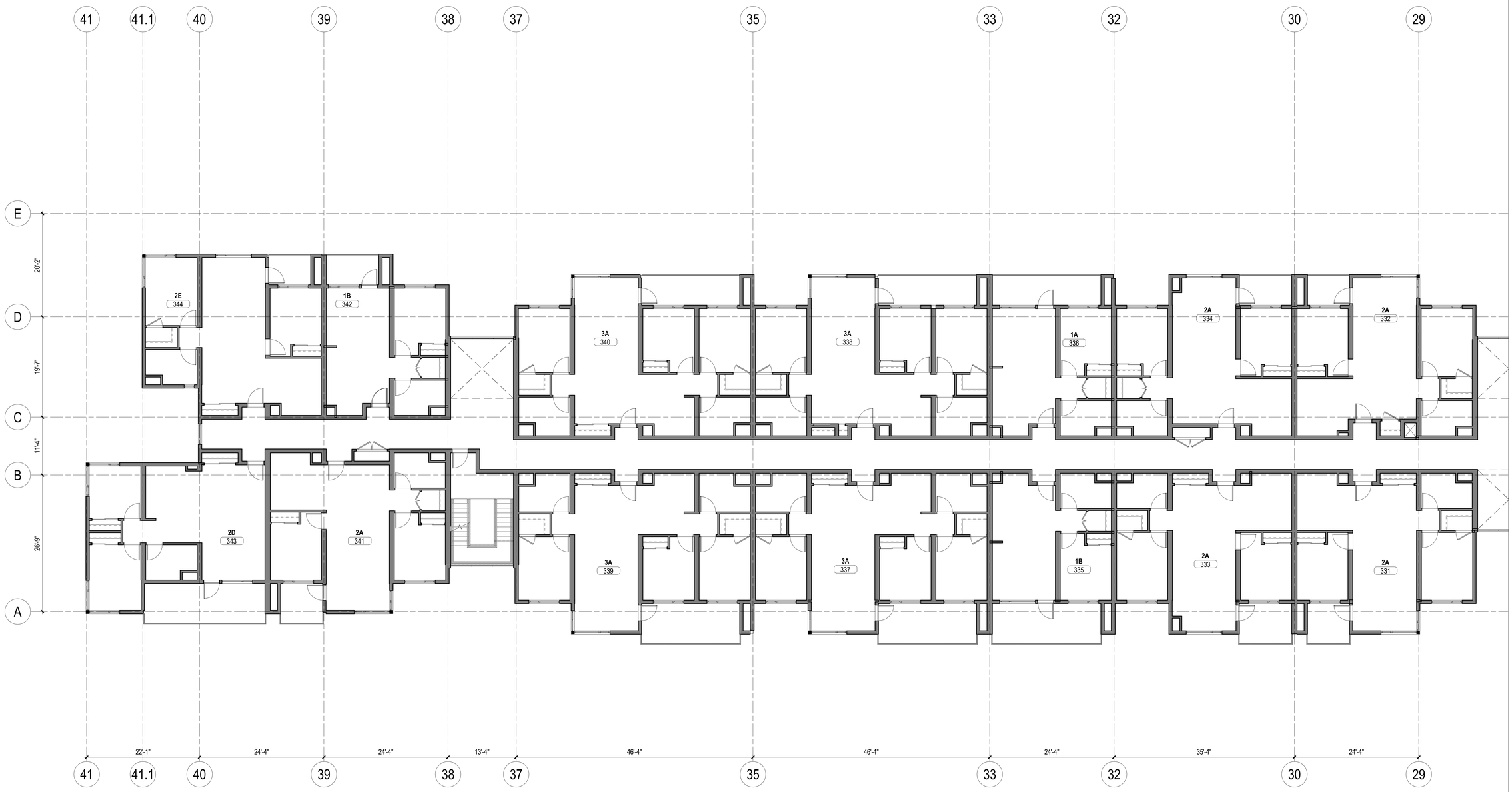

STRUCTURAL LEVEL 04 FRAMING

1 LEVEL 03 - FLOOR PLAN - A

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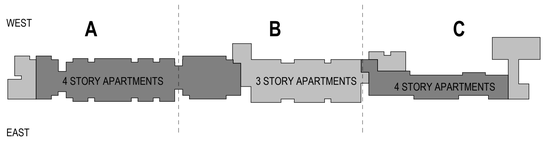

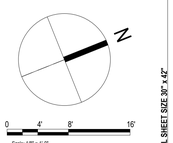

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

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A

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
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STRUCTURAL LEVEL 04 FRAMING

1 LEVEL 03 - FLOOR PLAN - B

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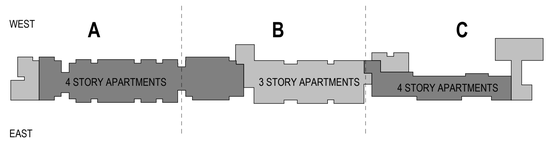

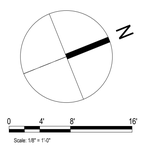

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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PROJECT NO.
18141-0349
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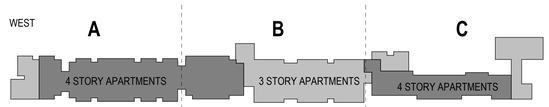

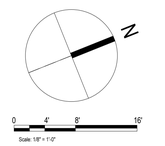

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
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PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.4C-FLR

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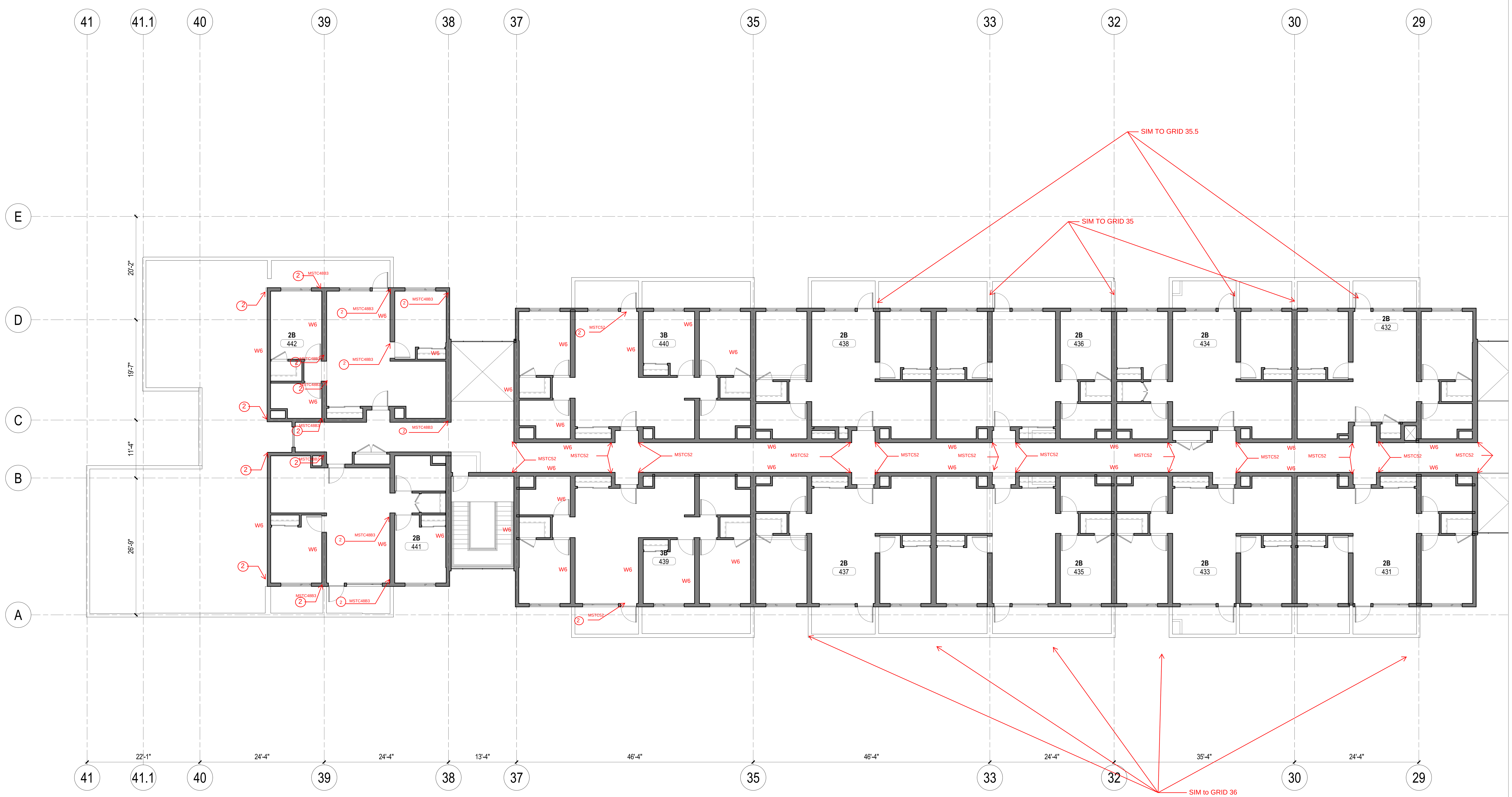
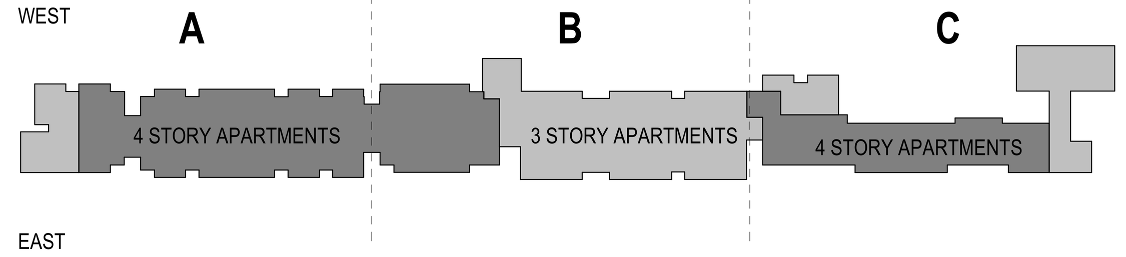
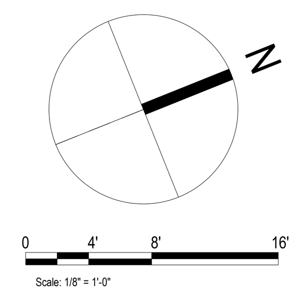


STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 04 - FLOOR PLAN - A

1/8" = 1'-0"





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TITLE
LEVEL 04
A STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO
18141-0349

DATE
07/24/18

SHEET NUMBER
S2.4A-SW

ORIGINAL SHEET SIZE 30" x 42"

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1 LEVEL 04 - FLOOR PLAN - B
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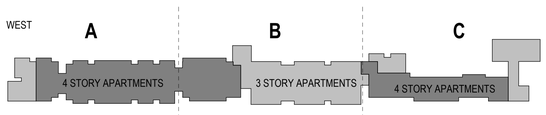

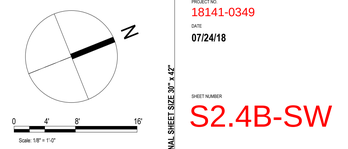

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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LEVEL 04 - B
STRUCTURAL STUD AND SHEAR WALL PLAN

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.4B-SW

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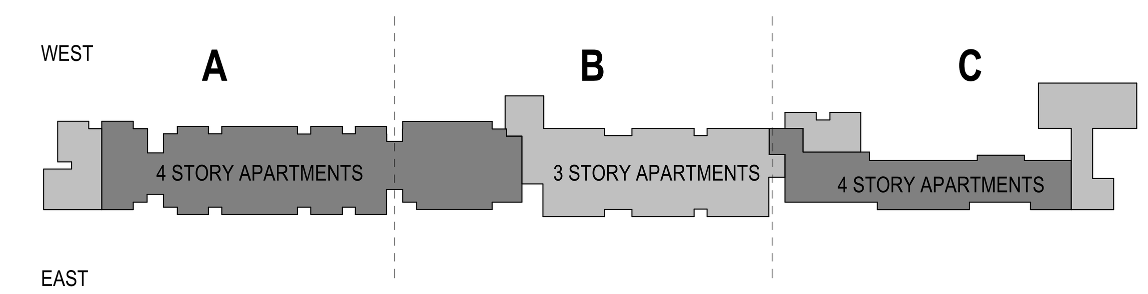
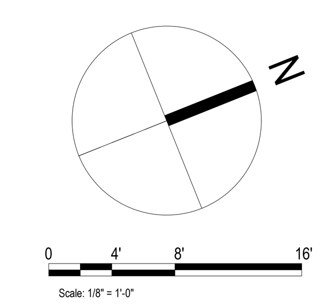
STRUCTURAL STUD AND SHEAR WALL PLAN

1 LEVEL 04 - FLOOR PLAN - C
1/8" = 1'-0"





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MENLO PARK, CA

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C STRUCTURAL STUD AND SHEAR WALL PLAN

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ROOF FRAMING SCHEDULE [1], [2]

TYPE	LOCATION	MEMBER SIZE	SPACING	RECOMMENDED HANGER [3][4]	ALTERNATE HANGER [3][4]
RF1	TYP ROOF JOIST	11 7/8" RED-I65	24"OC	MIU2.56/11	HU312 [5][6]
RF2	VARIES	1.6E LVL 1 1/4x11 7/8	16"OC	U210	HU210 [5]
RF3	VARIES	(3) 2.0E LVL 1 1/2x11 7/8	PER PLAN	HU212-3 MAX [5]	MIU4.75/11

NOTES:

[1] THESE CONDITIONS ARE TYPICAL AND APPLY UNLESS NOTED OTHERWISE ON PLAN OR DETAILS.

[2] PREFABRICATED TRUSSES ARE BIDDER-DESIGN ELEMENTS PER PLAN NOTES AND STRUCTURAL GENERAL NOTES..

[3] USE OSB SHIM TO MATCH WIDTH OF HANGERS AS REQUIRED.

[4] HANGER NAILING BASED ON 0.148"Ø x1 1/2" NAILS TO HEADER AND TO JOIST, QUANTITY PER MANUFACTURER. WHERE MIN AND MAX OPTION AVAILABLE PER MANUFACTURER USE MIN NAILING, UNO.

[5] CONCEALED FLANGE OPTION ALSO AVAILABLE PER MANUFACTURER.

[6] WEB STIFFENER REQUIRED PER MANUFACTURER REQUIREMENTS.

RIM JOIST SCHEDULE [1], [2], [3], [4]

TYPE	LOCATION	MEMBER SIZE & SPECIES	TYPICAL NAILING	NAILING AT OPENINGS
RJ1	TYP END WALL/FLOOR RIM JOIST	2x12	(3) 0.148"Ø x2 1/4" NAILS @ 12"OC	N/A
	TYP END WALL/CEILING RIM JOIST	2x8	(3) 0.148"Ø x2 1/4" NAILS @ 12"OC	N/A
	TYP END WALL/ROOF RIM JOIST	1.6E LVL1 1/4x11 7/8	N/A	N/A
RJ2	TYP INT/EXT SIDEWALL FLOOR RIM JOIST	(2) 1.6E LVL1 1/4x11 1/4	(3) 0.148"Ø x2 1/4" NAILS @ 12"OC	N/A
	TYP INT/EXT SIDEWALL CEILING RIM JOIST	(2)2x8	(3) 0.148"Ø x2 1/4" NAILS @ 12"OC	N/A
	TYP INT/EXT SIDEWALL ROOF RIM JOIST	1.6E LVL1 1/4x11 7/8	N/A	N/A

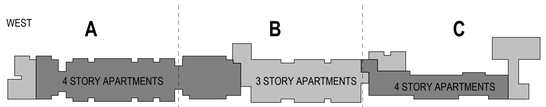
[1] THESE CONDITIONS ARE TYPICAL AND APPLY UNLESS NOTED OTHERWISE ON PLAN OR DETAILS.

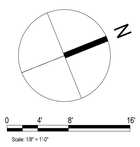
[2] SUBMIT ALTERNATES PER STRUCTURAL GENERAL NOTES.

[3] FLOOR RIM JOISTS SHALL BE CONTINUOUS THE FULL LENGTH OR WIDTH OF MODULE. IF A SPLICE IS REQUIRED CONTACT EOR. CEILING AND ROOF RIM JOISTS SHALL BE CONTINUOUS OVER OPENING AND EXTEND 6" PAST THE EDGE OF THE OPENING UNLESS A DROPPED HEADER IS PROVIDED. WHERE A DROPPED HEADER IS PROVIDED THE CEILING OR ROOF RIM JOIST MAY BE SPLICED OVER THE OPENING.

[4] NAILING SHOWN SHOULD BE THRU EACH LAMINATION. (E.G. TWO RIMS WILL HAVE NAILING FROM ONE SIDE AND THREE RIMS WILL HAVE NAILING THRU THE FIRST TWO AND THEN FROM THE OTHER SIDE OF THE THIRD INTO THE FIRST TWO).

1 STRUCTURAL ROOF FRAMING
LEVEL 04 - FLOOR PLAN - A
1/8" = 1'-0"





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STRUCTURAL ROOF FRAMING
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PROJECT NO.
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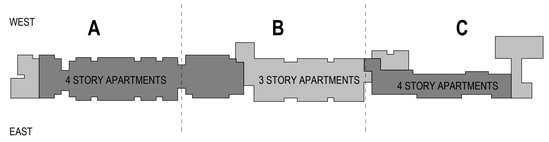

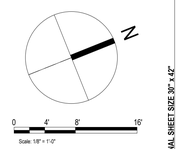

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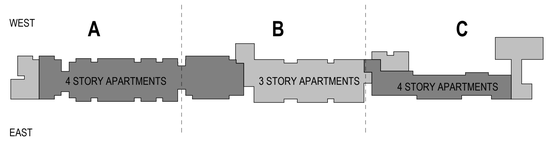
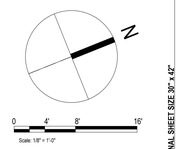
10/3/2018 5:54:45 PM

STRUCTURAL ROOF FRAMING

1 LEVEL 04 - FLOOR PLAN - C

1/8" = 1'-0"





NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE: 36" x 42"

MITHUN

SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
STRUCTURAL ROOF FRAMING
C

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S2.5C

R4S ZONING COMPLIANCE

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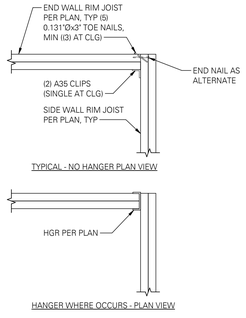
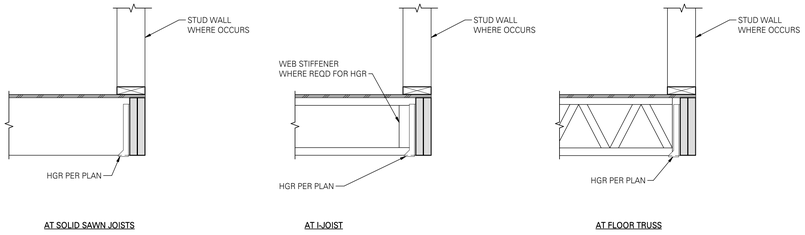


TYPICAL FLOOR AND CEILING RIM JOIST CONNECTION AT CORNER

4 SCALE: 1" = 1'-0"

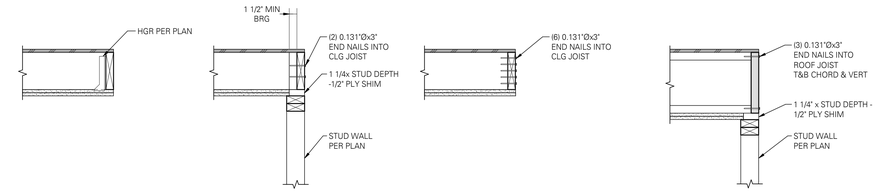


NOTE:

ADDITIONAL INFORMATION PER PLAN AND FACTORY BUILT DETAILS.

FLOOR FRAMING END CONDITION ALTERNATIVES

11 SCALE: 1" = 1'-0"

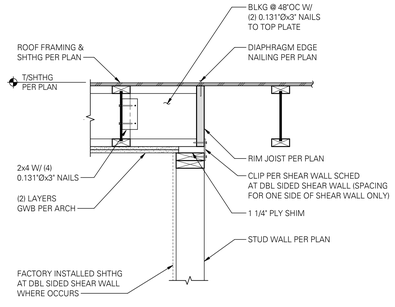


NOTES:

1. CEILING NAILING FOR TYPICAL 2x8 CEILING JOIST.
2. ADDITIONAL INFORMATION PER PLAN AND FACTORY BUILT DETAILS.
3. USE HANGER OR END NAILED CONDITION WHERE NO SPACE AVAILABLE FOR A DROPPED HEADER.

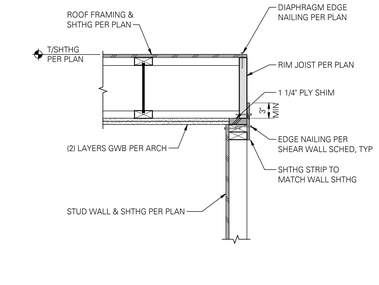
CEILING JOIST END CONDITION ALTERNATIVES

7 SCALE: 1" = 1'-0"



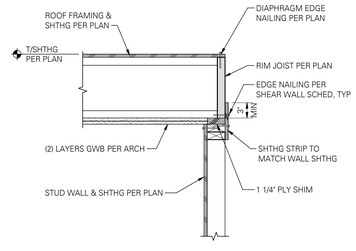
MODULAR CORRIDOR ROOF FRAMING

4 SCALE: 1" = 1'-0"



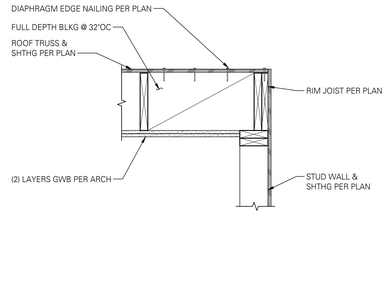
MODULAR INTERIOR ROOF FRAMING - JOIST PARALLEL

1 SCALE: 1" = 1'-0"



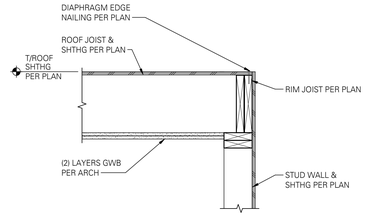
MODULAR INTERIOR ROOF FRAMING - JOIST PERPENDICULAR

2 SCALE: 1" = 1'-0"



MODULAR EXTERIOR ROOF FRAMING - JOIST PARALLEL

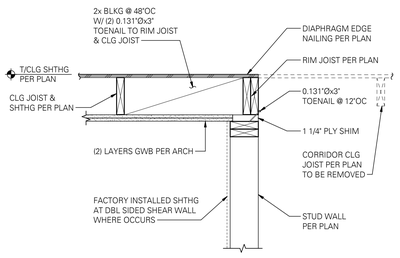
3 SCALE: 1" = 1'-0"



MODULAR EXTERIOR ROOF FRAMING - JOIST PERPENDICULAR

4 SCALE: 1" = 1'-0"

STAIR 1-STR2

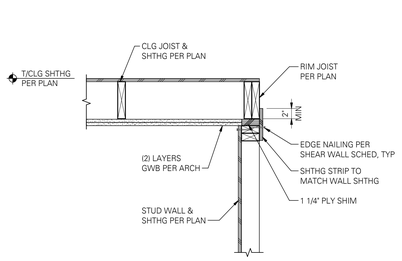


NOTE:

CORRIDOR SHEATHING IS SITE-INSTALLED AT CORRIDOR SIDE.
FOR SINGLE SIDED SHEAR WALLS. THE SHEATHING MAY BE INSTALLED AT UNIT SIDE.

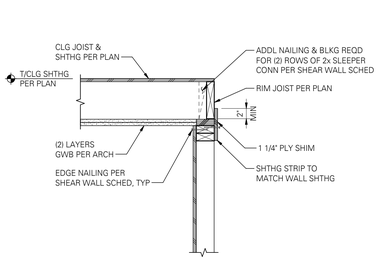
MODULAR CORRIDOR CEILING FRAMING - JOIST PARALLEL

8 SCALE: 1" = 1'-0"



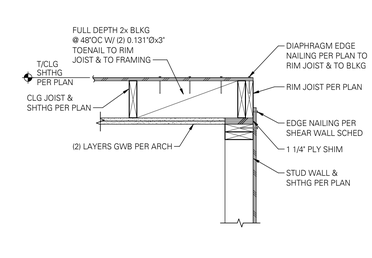
MODULAR INTERIOR CEILING FRAMING - JOIST PARALLEL

5 SCALE: 1" = 1'-0"



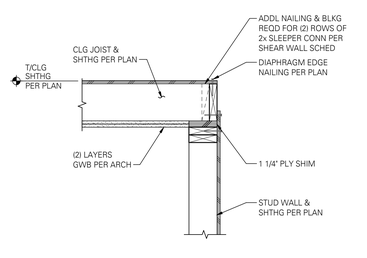
MODULAR INTERIOR CEILING FRAMING - JOIST PERPENDICULAR

6 SCALE: 1" = 1'-0"



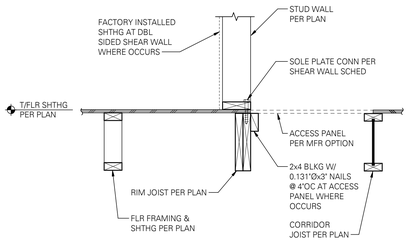
MODULAR EXTERIOR CEILING FRAMING - JOIST PARALLEL

7 SCALE: 1" = 1'-0"



MODULAR EXTERIOR CEILING FRAMING - JOIST PERPENDICULAR

8 SCALE: 1" = 1'-0"

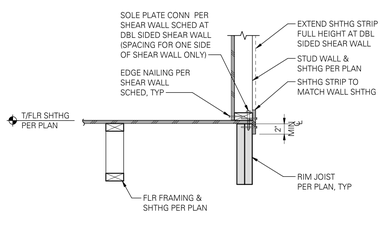


NOTE:

CORRIDOR SHEATHING IS SITE-INSTALLED AT CORRIDOR SIDE.

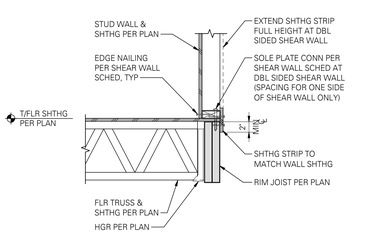
MODULAR CORRIDOR FLOOR FRAMING - JOIST PARALLEL

12 SCALE: 1" = 1'-0"



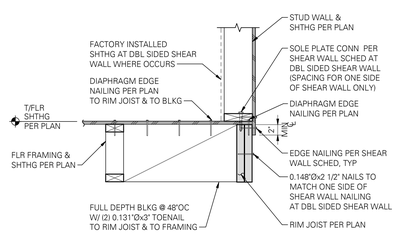
MODULAR INTERIOR FLOOR FRAMING - JOIST PARALLEL

9 SCALE: 1" = 1'-0"



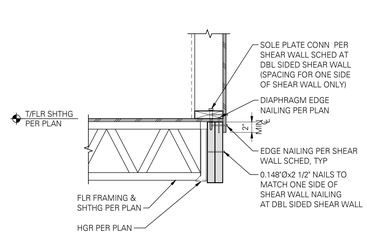
MODULAR INTERIOR FLOOR FRAMING - JOIST PERPINDICULAR

10 SCALE: 1" = 1'-0"



MODULAR EXTERIOR FLOOR FRAMING - JOIST PARALLEL

11 SCALE: 1" = 1'-0"



MODULAR EXTERIOR FLOOR FRAMING - JOIST PERPENDICULAR

12 SCALE: 1" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
STRUCTURAL FACTORY-BUILT WOOD FRAMING DETAILS

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S6.00
R4S ZONING COMPLIANCE

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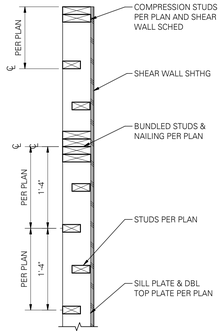
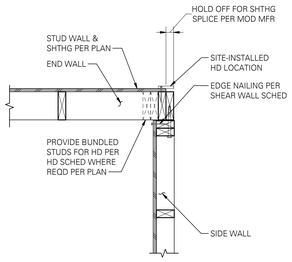


5 TYPICAL STUD LAYOUT AT STAGGERED STUD SHEAR WALL

SCALE: 1" = 1'-0"

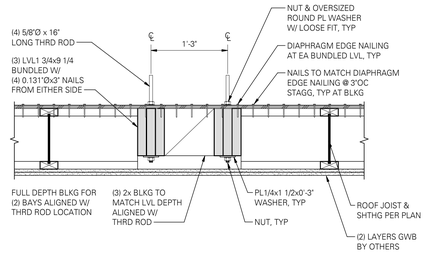


NOTE:

PLATE CONNECTION SHALL BE GREATER OF SIDE WALL AND CORRIDOR SHEAR WALL.

3 TYPICAL EXTERIOR CORNER FRAMING - PLAN

SCALE: 1" = 1'-0"

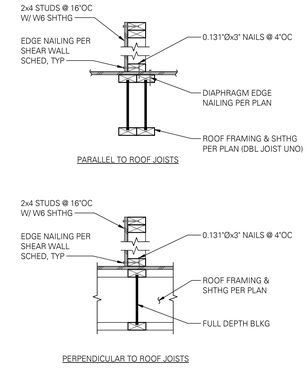


NOTE:

AT BUNDLED LVL BEAM ENDS, PROVIDE HU610 W/ 0.148"Øx1 1/2" NAILS AT 'MAX' NAIL PATTERN AND INSTALL (2) CTX #14-6 END SCREWS THRU THE RIM JOIST INTO EACH LVL LAMINATION ((6) TOTAL PER SUPPORT).

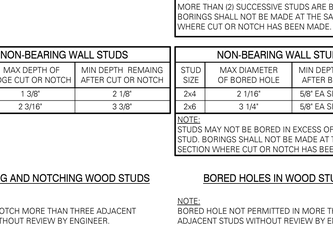
2 WINDOW WASH ANCHOR-FACTORY INSTALL

SCALE: 1" = 1'-0"



3 TYPICAL ROOF TOP EQUIPMENT CURB

SCALE: 1" = 1'-0"



9 WALL DEPTH TRANSITION AT SHEAR WALL

SCALE: 1" = 1'-0"

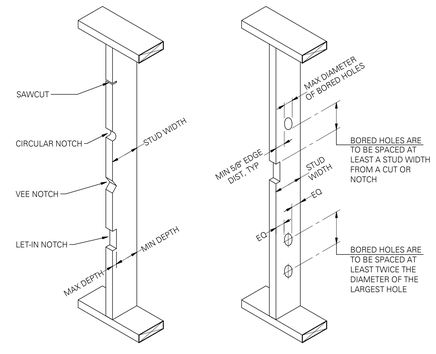
NOTES:

1. PLATE CONNECTION SHALL BE GREATER OF SIDE WALL AND CORRIDOR SHEAR WALL.

2. VERIFY END OF WALL OFFSET WITH MODULAR MANUFACTURER.

4 TYPICAL CORRIDOR CORNER FRAMING

SCALE: 1" = 1'-0"



BEARING WALL STUDS		
STUD SIZE	MAX DEPTH OF EDGE CUT OR NOTCH	MIN DEPTH REMAING AFTER CUT OR NOTCH
2x4	7/8"	2 5/8"
2x6	1 3/8"	4 1/8"

BEARING WALL STUDS		
STUD SIZE	MAX DIAMETER OF BORED HOLE	MIN DEPTH REMAING AFTER BORED HOLE
2x4	1 3/8"	5/8" EA SIDE OF HOLE
2x6	2 3/16"	5/8" EA SIDE OF HOLE

NOTE:
STUDS MAY NOT BE BORED IN EXCESS OF 40% OF THE STUD, IF STUDS ARE DOUBLED, BORINGS MAY BE INCREASED TO 60% OF STUD WIDTH PROVIDED NOT MORE THAN (2) SUCCESSIVE STUDS ARE BORED. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

NON-BEARING WALL STUDS		
STUD SIZE	MAX DEPTH OF EDGE CUT OR NOTCH	MIN DEPTH REMAING AFTER CUT OR NOTCH
2x4	1 3/8"	2 1/8"
2x6	2 3/16"	3 3/8"

NON-BEARING WALL STUDS		
STUD SIZE	MAX DIAMETER OF BORED HOLE	MIN DEPTH REMAING AFTER BORED HOLE
2x4	2 1/16"	5/8" EA SIDE OF HOLE
2x6	3 1/4"	5/8" EA SIDE OF HOLE

NOTE:
STUDS MAY NOT BE BORED IN EXCESS OF 60% OF THE STUD. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

CUTTING AND NOTCHING WOOD STUDS

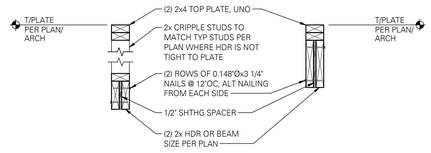
NOTE:
DO NOT NOTCH MORE THAN THREE ADJACENT STUDS WITHOUT REVIEW BY ENGINEER.

BORED HOLES IN WOOD STUDS

NOTE:
BORED HOLE NOT PERMITTED IN MORE THAN THREE ADJACENT STUDS WITHOUT REVIEW BY ENGINEER.

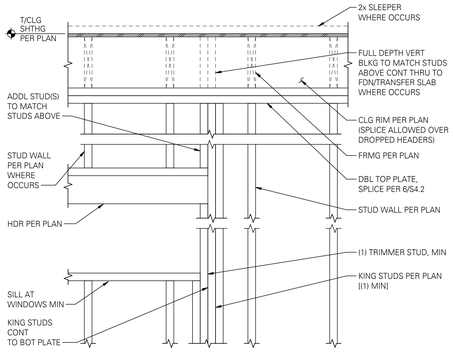
9 TYPICAL HOLES & NOTCHES IN WOOD STUDS

SCALE: 1" = 1'-0" (06908)



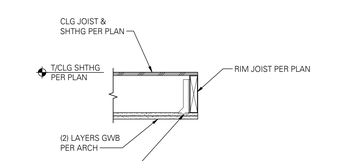
5 TYPICAL BUILT-UP 2x HEADER OR BEAM

SCALE: 1" = 1'-0" (06212MI)



9 TYPICAL HEADER

SCALE: 1" = 1'-0" (06210MI)

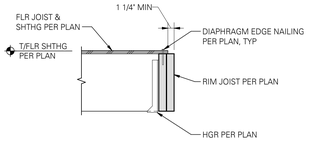


NOTE:

PROVIDE TEMPORARY WALL FOR TRANSPORTATION PER MODULAR MANUFACTURER, AS REQUIRED.

6 MODULAR CEILING FRAMING AT MATELINE OPENING BETWEEN BOXES

SCALE: 1" = 1'-0"

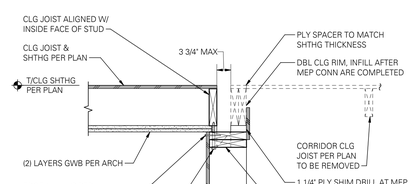


NOTE:

PROVIDE TEMPORARY WALL FOR TRANSPORTATION PER MODULAR MANUFACTURER, AS REQUIRED.

10 MODULAR FLOOR FRAMING AT MATELINE OPENING BETWEEN BOXES

SCALE: 1" = 1'-0"



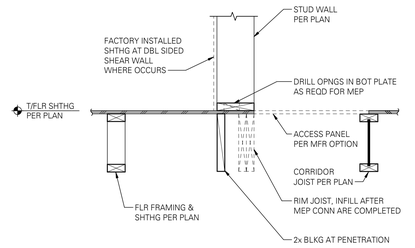
NOTES:

1. CORRIDOR SHEATHING IS SITE-INSTALLED AT CORRIDOR SIDE.

2. THIS DETAIL REQUIRES MINIMUM 2x10 TOP AND BOTTOM PLATE WALLS.

7 TYPICAL CORRIDOR CEILING FRAMING AT MEP HOOKUP

SCALE: 1" = 1'-0"



NOTES:

1. CORRIDOR SHEATHING IS SITE-INSTALLED AT CORRIDOR SIDE.

2. THIS DETAIL REQUIRES MINIMUM 2x10 TOP AND BOTTOM PLATE WALLS.

11 TYPICAL CORRIDOR FLOOR FRAMING AT MEP HOOKUP

SCALE: 1" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR
1-STR2

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
STRUCTURAL FACTORY-BUILT WOOD FRAMING DETAILS

PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S6.01
R4S ZONING COMPLIANCE

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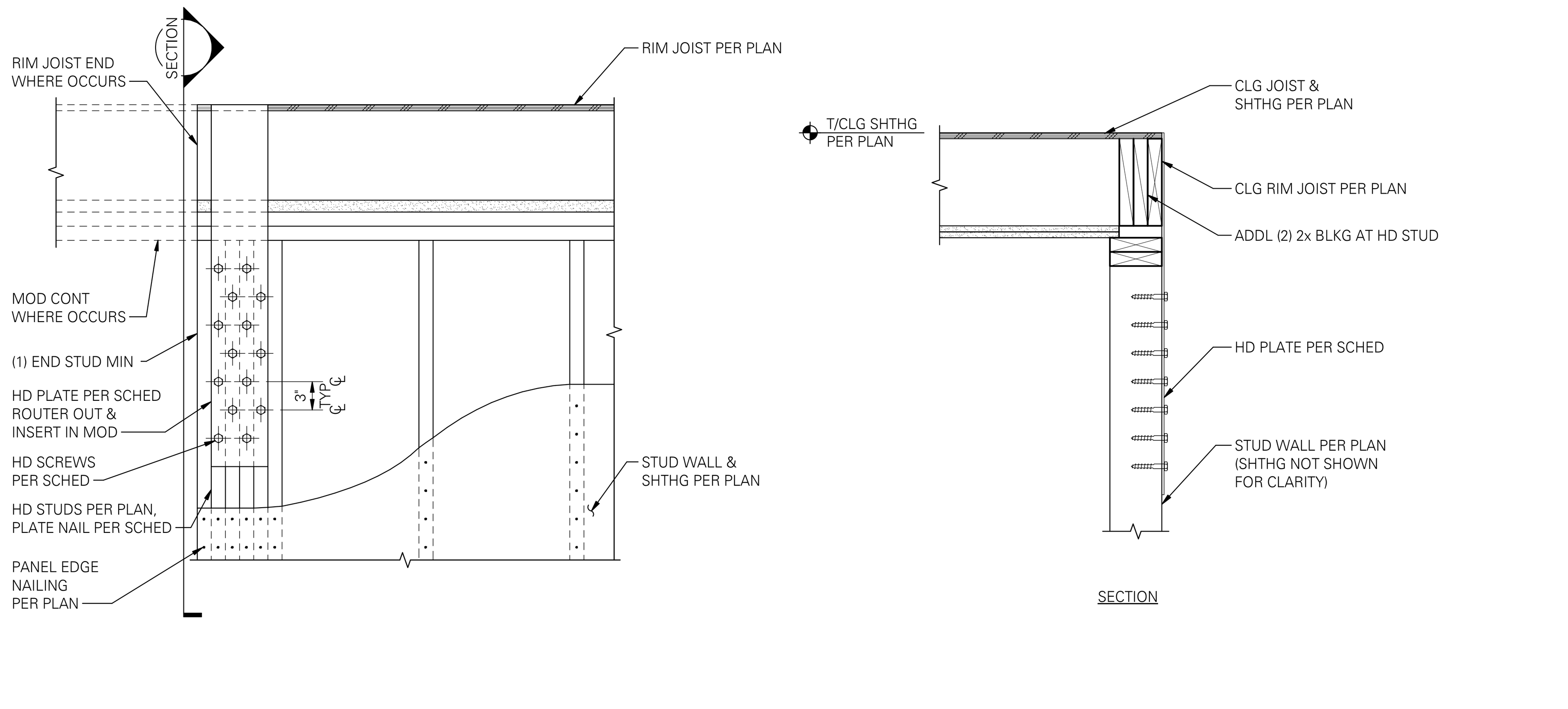
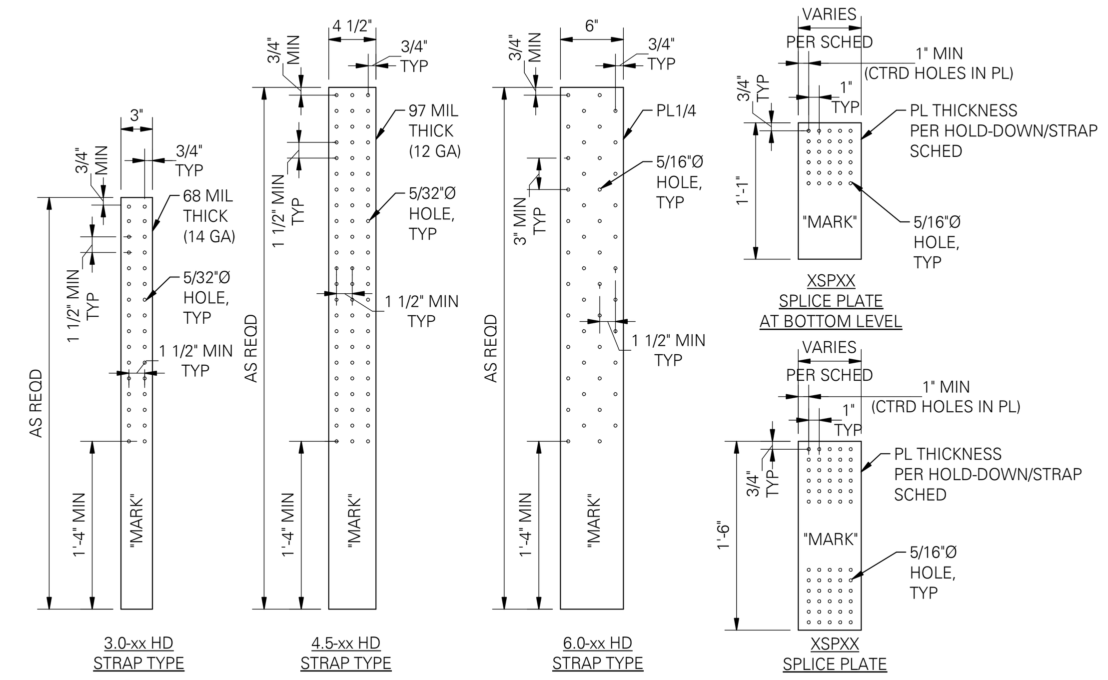


5 **MODULAR HOLD-DOWN ELEVATION AT CEILING**

SCALE: 1" = 1'-0"



NOTES:
1. REFERENCE HOLD-DOWN/STRAP SCHEDULE FOR ADDITIONAL INFORMATION.
2. "MARK" TO BE A PAINTED OR STAMPED INDICATOR OF STRAP OR SPLICE PLATE TYPE PER SCHEDULE.
3. MODULAR MANUFACTURER AND GENERAL CONTRACTOR SHALL COORDINATE WHO PROVIDES THE SPLICE PLATES FOR FIELD INSTALLATION.

3 **CUSTOM STRAP HOLD-DOWN DETAIL**

SCALE: 1" = 1'-0"

01420M HOLD-DOWN/STRAP SCHEDULE - DOUG-FIR STUDS [1, 2, 4, 5] ← INDICATES FOOTNOTES							
	TYPE	NUMBER OF STUDS/POST [3, 7]	NAILS, SCREWS OR BOLTS [6]	HD AND SPLICE PLATE THICKNESS (MIL/GA) [11]	MIN HD PLATE LENGTH	CAPACITY	NOTES
SIMPSON STRAPS	MSTC48B3	(2) 2x	(38) 0.148"Øx2 1/2" NAILS IN STUD/POST (12) 0.148"Øx2 1/2" NAILS IN FACE (4) 0.148"Øx2 1/2" NAILS IN BOT	N/A	N/A	3.9k	[8]
	MSTC66B3	(2) 2x	(38) 0.148"Øx2 1/2" NAILS IN STUD/POST (14) 0.148"Øx2 1/2" NAILS IN FACE (4) 0.148"Øx2 1/2" NAILS IN BOT			4.5k	[8]
	(2) MSTC48B3	(5) 2x	(76) 0.148"Øx2 1/2" NAILS IN STUD/POST (24) 0.148"Øx2 1/2" NAILS IN FACE (4) 0.148"Øx2 1/2" NAILS IN BOT			7.3k	[8]
	(2) MSTC66B3	(5) 2x	(76) 0.148"Øx2 1/2" NAILS IN STUD/POST (28) 0.148"Øx2 1/2" NAILS IN FACE (4) 0.148"Øx2 1/2" NAILS IN BOT			8.3k	[8]
	MSTC40	(2) 2x	SEE INSTALLATION SCHEDULE			2.3k	[12]
	MSTC52	(2) 2x	SEE INSTALLATION SCHEDULE			3.4k	[12]
	MSTC66	(2) 2x	SEE INSTALLATION SCHEDULE			5.3k	[12]
	(2) MSTC52	(4) 2x	SEE INSTALLATION SCHEDULE			6.9k	[12]
	(2) MSTC66	(4) 2x	SEE INSTALLATION SCHEDULE			10.7k	[12]
	(3) MSTC66	(6) 2x	SEE INSTALLATION SCHEDULE			16.1k	[12]
	(4) MSTC66	(8) 2x	SEE INSTALLATION SCHEDULE			21.5k	[12]
	(5) MSTC66	(10) 2x	SEE INSTALLATION SCHEDULE			26.9k	[12]
	(6) MSTC66	(12) 2x	SEE INSTALLATION SCHEDULE			32.3k	[12]
CUSTOM STRAPS	3.0-10HD	(2) 2x	(10) 0.148"Øx2 1/2" NAILS	68MIL/14GA	25"	1.8k	[9, 10]
	3.0-20HD	(2) 2x	(20) 0.148"Øx2 1/2" NAILS		30"	3.6k	[9, 10]
	3.0-30HD	(2) 2x	(30) 0.148"Øx3 1/2" NAILS		40"	5.4k	[9, 10]
	4.5-40HD	(3) 2x	(40) 0.148"Øx2 1/2" NAILS	97MIL/12GA	38"	7.5k	[9, 10]
	4.5-50HD	(3) 2x	(50) 0.148"Øx2 1/2" NAILS		42"	9.5k	[9, 10]
	4.5-60HD	(3) 2x	(60) 0.148"Øx2 1/2" NAILS		48"	11.3k	[9, 10]
	6.0-24HD	(4) 2x	(24) SDS1/4x2 1/2 SCREWS	1/4" THICK	38"	16.1k	[9, 10]
	6.0-32HD	(4) 2x	(32) SDS1/4x2 1/2 SCREWS		40"	21.5k	[9, 10]
	6.0-40HD	(4) 2x	(40) SDS1/4x2 1/2 SCREWS		46"	26.8k	[9, 10]
	6.0-48HD	(4) 2x	(48) SDS1/4x2 1/2 SCREWS		52"	32.2k	[9, 10]

NOTES:
[1] SOME HOLD-DOWN TYPES MAY NOT BE USED ON THIS PROJECT.

[2] TYPICAL HOLD-DOWN DETAILS PER 1/S-503, 3/S-503, 6/S-503 AND 8/S-503.

[3] PROVIDE PANEL EDGE NAILING PER SHEAR WALL SCHEDULE AT HOLD-DOWN STUDS/POSTS.

[4] INCLUDES 1.6 LOAD DURATION INCREASE FOR WOOD.

[5] BASED ON MINIMUM 11 1/4" DEEP FLOOR AND 7 1/4" DEEP CEILING.

[6] "SEE INSTALLATION SCHEDULE" INDICATES TO REFERENCE HOLD-DOWN/SPLICE PLATE SCHEDULE PER INSTALLATION DETAILS. OTHERWISE THE TOTAL NAILS SPECIFIED ARE PER HOLD-DOWN TYPE. REFERENCE MANUFACTURER RECOMMENDATIONS FOR SIMPSON STRAPS.

[7] NAIL MULTIPLE 2x STUDS WITH PLATE NAILING PER SHEAR WALL SCHEDULE.

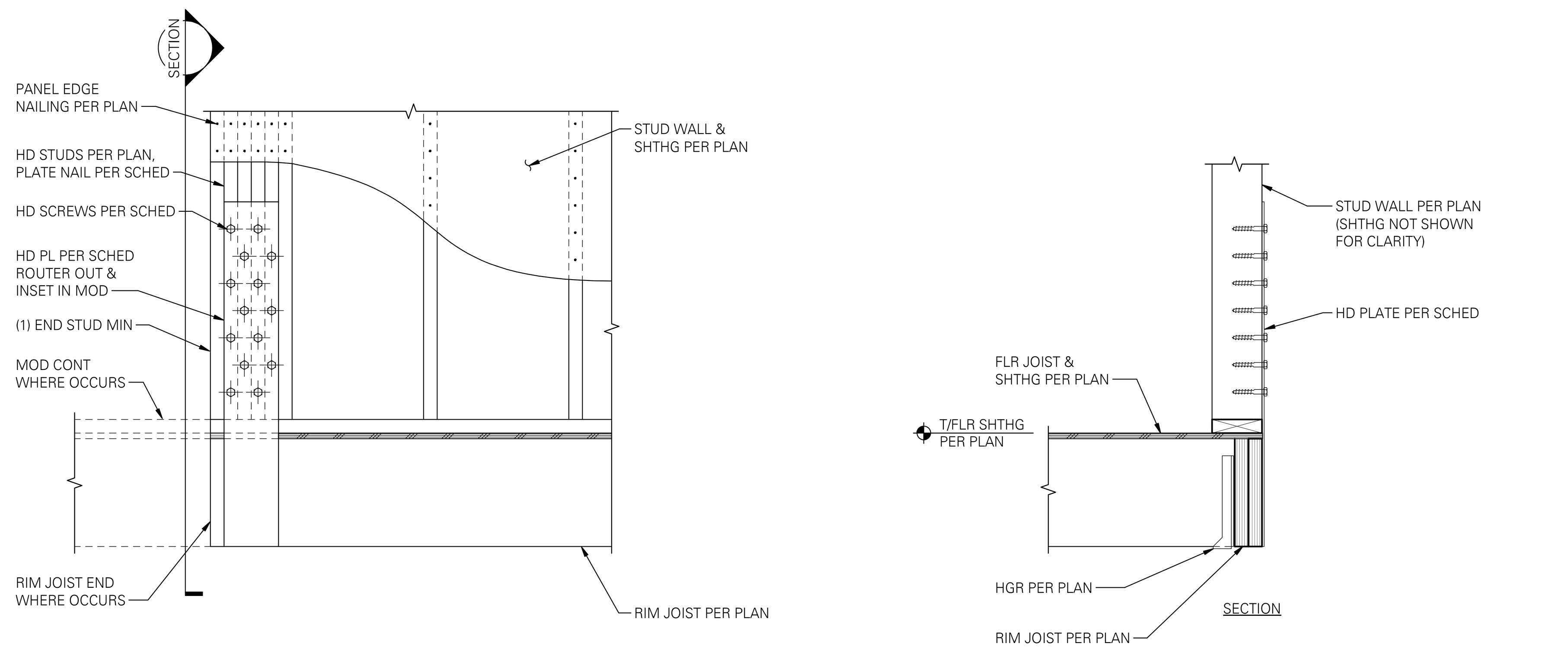
[8] BENT STRAPS MAY BE INSTALLED OVER 1/2" THICK MAX SHEATHING IF CAPACITY REDUCED BY 0.85.

[9] "HD" TYPES REQUIRE A STRAP INSTALLED AT TOP AND BOTTOM OF HOLD-DOWN STUDS. USE SPECIFIED NAILING FOR EACH STRAP. NO STRAP REQUIRED AT ROOF. HIGHER CAPACITY STRAPS MAY BE USED IN PLACE OF LOWER CAPACITY STRAPS WITH REDUCED NAILING PER MODULAR MANUFACTURER OPTION.

[10] "HD" MAY BE INSTALLED WITH OUTSIDE FACE FLUSH WITH OUTSIDE FACE OF STUDS BY INSERTING STRAP INTO WOOD PER MODULAR MANUFACTURER OPTION.

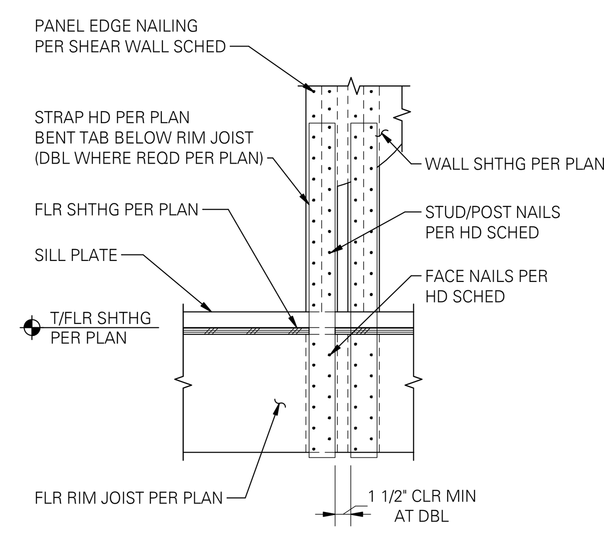
[11] 68 AND 97 MIL PLATES SHALL BE ASTM A653 GRADE D, Fy=50ksi AND 1/4" PLATES SHALL BE ASTM A36, Fy=36ksi.

[12] IN FACTORY PROVIDE STUDS FOR FIELD INSTALLATION OF SIMPSON STRAIGHT STRAP.



9 **MODULAR HOLD-DOWN ELEVATION AT FLOOR**

SCALE: 1" = 1'-0"



NOTES:
1. HOLD-DOWN STRAP MAY BE INSTALLED OVER 1/2" MAXIMUM SHEATHING PER FACTORY INSTALLED HOLD-DOWN SCHEDULE.
2. BENT STRAPS ONLY REQUIRED AT FLOOR RIM.

8 **BENT STRAP HOLD-DOWN AT MODULAR**

SCALE: 1" = 1'-0"

9 **HOLD-DOWN/STRAP SCHEDULE - DOUG-FIR STUDS**

SCALE: 1" = 1'-0" (01420)

STAIR 1-STR2

01431BM **SHEAR WALL SCHEDULE** W FOR 0.148"Øx 2 1/4" NAILS (CBC 2016) [17] SOME SHEAR WALLS TYPES NOTED MAY NOT BE USED ON THIS PROJECT

FACTORY & FIELD INSTALL (1)							FACTORY INSTALLED				FIELD INSTALLED			
MARK	WALL SHEATHING APA RATED [1, 2, 12]	STUD PLATES/ BLOCKING SPECIES	PANEL NAILING SIZE	PANEL NAILING EDGE SPACING	PANEL NAILING FIELD SPACING	MIN PANEL EDGE BLOCKING/ STUD SIZE	2x SOLE PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW [18]	PLATE CONNECTION THRU MAX (2) 2x [18]	2x PLATE CONNECTION THRU MAX (2) LAYERS 5/8" GYP	FACTORY INSTALLED CLIPS (LTP5) [7,8]	2x (MIN) PLATE CONNECTION TO FOUNDATION [11]	RIM JOIST CONNECTION TO SLEEPER (A35) [7,8]	2x SLEEPER CONNECTION TO CEILING RIM [18]	SHEAR CAPACITY LBS/FT (ASD)
W6	7/16"	DOUG-FIR	0.148"Øx2 1/4"	6"OC	12"OC	2x	1/4"Øx4" SDS @ 16"OC	1/4"Øx6" SDS @ 16"OC	0.220"Ø x 6" SDWS @ 16"OC	CLIP @ 16"OC	5/8"Ø x 48"OC	CLIP @ 24"OC	0.148"Ø x 3 1/4" @ 6"OC	310
W4				4"OC STAGGER	12"OC	3x	1/4"Øx4" SDS @ 10"OC	1/4"Øx6" SDS @ 12"OC	0.220"Ø x 6" SDWS @ 10"OC	CLIP @ 14"OC	5/8"Ø x 32"OC	CLIP @ 18"OC	0.148"Ø x 3 1/4" @ 4"OC	460
W3				3"OC STAGGER	12"OC		1/4"Øx4" SDS @ 8"OC	1/4"Øx6" SDS @ 9"OC	0.220"Ø x 6" SDWS @ 8"OC	CLIP @ 10"OC	5/8"Ø x 24"OC	CLIP @ 12"OC	1/4"Øx4" SDS @ 8"OC	600
W2				2"OC STAGGER	12"OC		1/4"Øx4" SDS @ 6"OC	1/4"Øx6" SDS @ 6"OC	0.220"Ø x 6" SDWS @ 6"OC	CLIP @ 8"OC	5/8"Ø x 18"OC	CLIP @ 10"OC	1/4"Øx4" SDS @ 6"OC	770
W2A	7/16" STRUCT 1			2"OC STAGGER	12"OC		1/4"Øx4" SDS @ 5"OC	1/4"Øx6" SDS @ 5"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 10"OC	CLIP @ 8"OC	5/8"Ø x 18"OC	CLIP @ 9"OC	1/4"Øx4" SDS @ 5"OC	870
2W4	7/16" BOTH SIDES			4"OC	12"OC		1/4"Øx4" SDS @ 5"OC	1/4"Øx6" SDS @ 6"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 10"OC	CLIP @ 6"OC	5/8"Ø x 16"OC	CLIP @ 9"OC	1/4"Øx4" SDS @ 5"OC	920
2W3				3"OC STAGGER	12"OC		(2) ROWS 1/4"Øx4" SDS @ 8"OC	(2) ROWS 1/4"Øx6" SDS @ 8"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 8"OC	CLIP @ 8"OC W/ SDS SCREWS	5/8"Ø x 12"OC	CLIP @ 6"OC	(2) ROWS 1/4"Øx4" SDS @ 8"OC	1200
2W2				2"OC STAGGER	12"OC		(2) ROWS 1/4"Øx4" SDS @ 6"OC	(2) ROWS 1/4"Øx6" SDS @ 6"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 6"OC	CLIP @ 6"OC W/ SDS SCREWS	5/8"Ø x 12"OC	CLIP @ 5 1/2"OC	(2) ROWS 1/4"Øx4" SDS @ 6"OC	1540

BUNDLED STUD FASTENING SCHEDULE

	ADJOINING PANEL EDGE		COMPRESSION STUDS	
MARK	0.131"Øx3" NAIL SPACING	CTX #14-3 SCREW SPACING	0.131"Øx3" NAIL THRU SINGLE 2x	CTX #14-6 SCREW THRU (4) 2x
W6	(2) ROWS @ 9"OC	10"OC	(2) ROWS @ 9"OC	16"OC STAGG
W4	(2) ROWS @ 6"OC	6"OC	(2) ROWS @ 6"OC	12"OC STAGG
W3	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 4"OC STAGG	9"OC STAGG
W2	(2) ROWS @ 4"OC STAGG	(2) ROWS @ 6"OC	(2) ROWS @ 4"OC STAGG	6"OC STAGG
W2A	(2) ROWS @ 4"OC STAGG	(2) ROWS @ 6"OC	(2) ROWS @ 2"OC STAGG	6"OC STAGG
2W4	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 3"OC STAGG	6"OC STAGG
2W3	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 2"OC STAGG	(2) ROWS @ 6"OC
2W2	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 2"OC STAGG	(2) ROWS @ 6"OC

NOTES:
[1] APA RATED WOOD STRUCTURAL PANEL SHEATHING SHALL BE VENEER PLYWOOD OR ORIENTED STRAND BOARD. WHERE INDICATED, STRUCTURAL 1 APA RATED PANELS MAY BE USED TO INCREASE CAPACITY. INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY.

[2] WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON THE OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUD.

[3] BLOCKING IS REQUIRED AT ALL PANEL EDGES IN SHEAR WALLS.

[4] PROVIDE SHEAR WALL SHEATHING AND NAILS FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLD-DOWN REQUIREMENTS PER PLANS.

[5] SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLD-DOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLD-DOWN POSTS. ADDITIONAL INFORMATION PER HOLD-DOWN DETAILS.

[6] INTERMEDIATE FRAMING TO BE 2x MINIMUM MEMBERS. ATTACH SHEATHING TO INTERMEDIATE FRAMING WITH 0.148"Øx2 1/4" NAILS AT 12"OC WHERE STUDS ARE SPACED AT 16"OC AND 0.148"Øx2 1/4" NAILS AT 6"OC WHERE STUDS ARE SPACED AT 24"OC.

[7] BASED ON 0.131"Øx1 1/2" NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131"Øx2 1/2" NAILS WHERE INSTALLED OVER SHEATHING.

[8] FRAMING CLIPS: A35 OR LTP5 OR APPROVED EQUIVALENT. USE LTP4 OR A35 WITH #9x1 1/2" SDS SCREWS WHERE INDICATED.

[9] WHERE BOTTOM PLATE ATTACHMENT SPECIFIES (2) ROWS OF FASTENERS, PROVIDE DOUBLE JOIST, DOUBLE RIM JOIST OR EQUAL BELOW. STAGGER FASTENERS IN ROWS 1 1/2" APART MINIMUM.

[10] ANCHOR BOLTS SHALL BE PROVIDED WITH HOT-DIPPED GALVANIZED STEEL PLATE WASHERS 0.229"x3"x3" MINIMUM. THE HOLE IN THE PLATE WASHER MAY BE DIAGONALLY SLOTTED 13/16"x1 3/4" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. PLATE WASHER TO EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDE(S) WITH SHEATHING. INCREASE PLATE WASHER SIZE AS REQUIRED. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.

[11] PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED (ELECTRO-PLATING IS NOT ACCEPTABLE) SCREWS AND CONNECTOR PLATES (FRAMING ANGLES, ETC) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS. ADDITIONAL INFORMATION PER STRUCTURAL GENERAL NOTES.

[12] WHERE WOOD SHEATHING (W) IS APPLIED OVER GYPSUM SHEATHING (G), CONTACT THE ENGINEER OF RECORD FOR ALTERNATE NAILING REQUIREMENTS.

[13] AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN PLACE OF SINGLE 3x STUD. DOUBLE 2x STUDS SHALL BE CONNECTED TOGETHER BY FASTENING THE STUDS TOGETHER PER SCHEDULE.

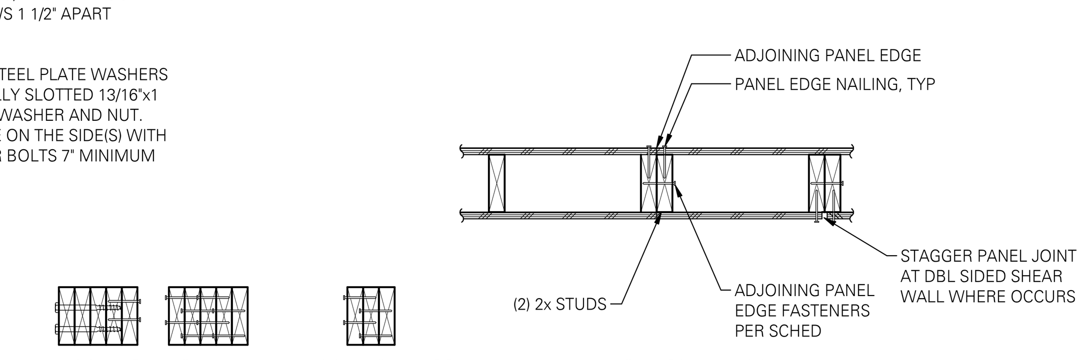
[14] AT CLOSURE SHEATHING BETWEEN MODULES, NAILS SHALL BE FIELD INSTALLED.

[15] WX WHERE "W" INDICATES WOOD SHEATHING AND "X" INDICATES EDGE NAIL SPACING, AND "A" INDICATES STRUCT 1 SHEATHING.

[16] EDGE NAILS SHALL BE LOCATED 3/8" FROM PANEL EDGES.

[17] BEARING WALLS PER PLAN NOT DESIGNED AS SHEAR WALLS MAY HAVE SHEATHING PER MODULAR MANUFACTURER. PROVIDE 0.131"Øx2 1/2" NAILS @ 6"OC AT EDGES AND AT 12"OC AT INTERMEDIATE FRAMING MINIMUM. PROVIDE 0.131"Øx3" NAILS @ 16"OC AT SOLE PLATE FASTENING.

[18] "CTX" CONSTRUCTION LAG SCREWS ARE PRODUCED BY WESTERN BUILDERS SUPPLY. TESTING RESULTS AVAILABLE UPON REQUEST TO MANUFACTURER, REFERENCE ELEMENT MECHANICAL TESTING REPORT ESP012657P-233. "SDWS" REFERS TO SDWS TIMBER SCREWS PRODUCED BY SIMPSON PER IAPMO-UES ER-192.



10 **SHEAR WALL SCHEDULE - DOUG-FIR LARCH**

SCALE: 1" = 1'-0" (01431BM)

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE		REVISION
	10/12/18	100%	SCHEMATIC DESIGN

DESIGN PARTNER AT
PROJECT MANAGER KB
PROJECT ARCHITECT AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS EO
CHECK

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THIS DOCUMENT HAS BEEN PREPARED FOR PERMIT APPLICATION AND IS SUBJECT TO REVIEW AND MODIFICATION BY GOVERNMENTAL AGENCIES

TITLE
STRUCTURAL FACTORY-BUILT WOOD FRAMING DETAILS

PROJECT NO.
18141-0349

DATE
07/24/18

SHEET NUMBER
S6.02

R4S ZONING COMPLIANCE

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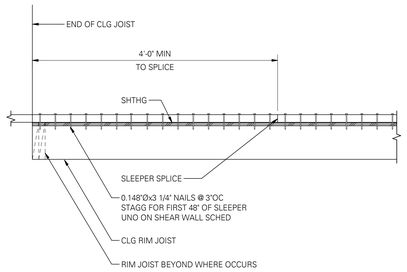
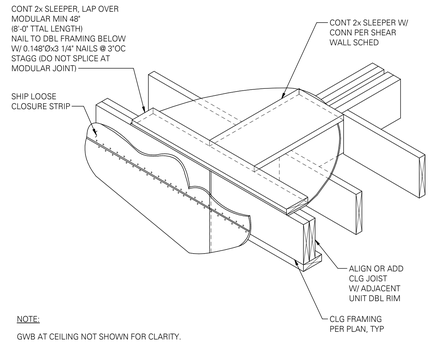


1 TYPICAL MODULAR SLEEPER SPLICE AT MODULAR UNIT

SCALE: 1" = 1'-0"

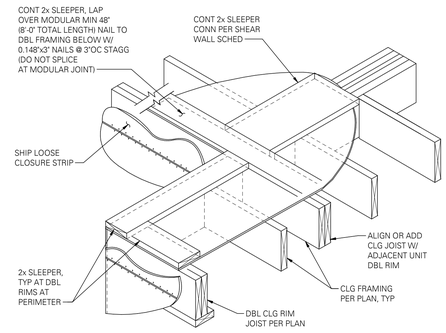


NOTE:

GWB AT CEILING NOT SHOWN FOR CLARITY.

2 TYPICAL MODULAR SLEEPER SPLICE AT MODULAR JOINT

SCALE: 3/4" = 1'-0"

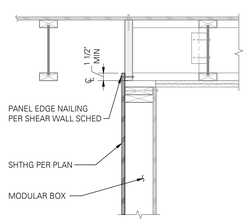


NOTE:

GWB AT CEILING NOT SHOWN FOR CLARITY.

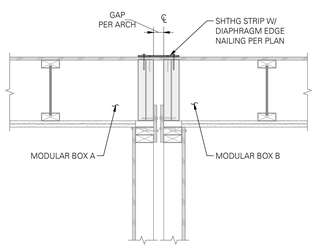
3 TYPICAL MODULAR SLEEPER SPLICE AT BUILDING OFFSET

SCALE: 3/4" = 1'-0"



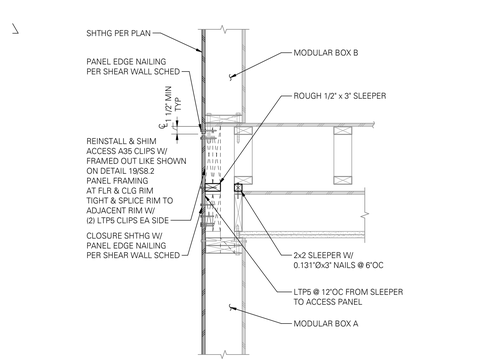
1 TYPICAL CORRIDOR AT MODULAR ROOF

SCALE: 1" = 1'-0"



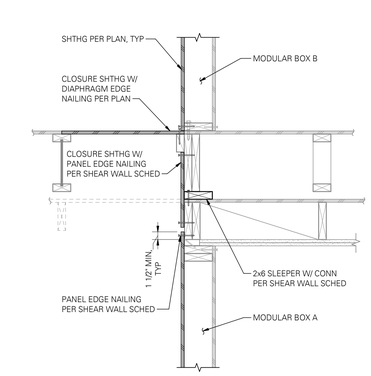
2 TYPICAL MATELINE AT MODULAR ROOF

SCALE: 1" = 1'-0"



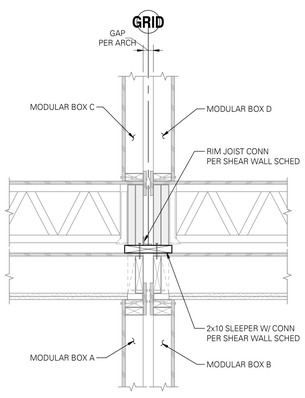
8 TYPICAL CORRIDOR MEP ACCESS AT MODULAR STACK

SCALE: 1" = 1'-0"



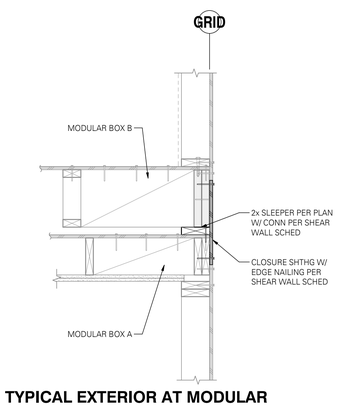
5 TYPICAL CORRIDOR AT MODULAR STACK

SCALE: 1" = 1'-0"



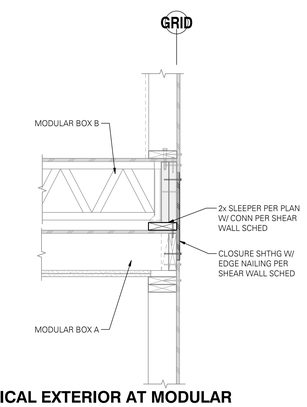
6 TYPICAL MATELINE AT MODULAR STACK

SCALE: 1" = 1'-0"



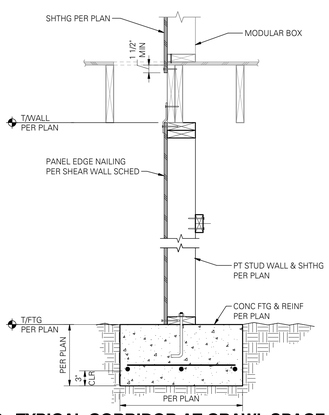
7 TYPICAL EXTERIOR AT MODULAR STACK - JOIST PARALLEL

SCALE: 1" = 1'-0"



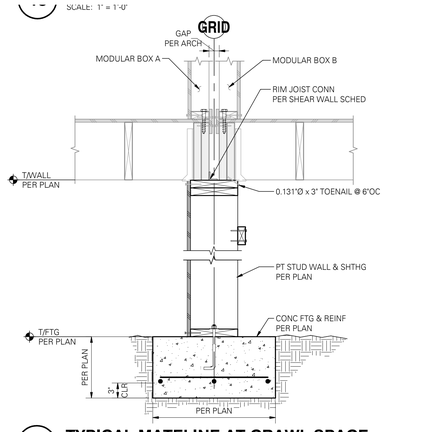
8 TYPICAL EXTERIOR AT MODULAR STACK - JOIST PERPENDICULAR

SCALE: 1" = 1'-0"



16 TYPICAL CORRIDOR AT CRAWL SPACE

SCALE: 1" = 1'-0"



18 TYPICAL MATELINE AT CRAWL SPACE

SCALE: 1" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR
1-STR2

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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THIS DOCUMENT HAS BEEN PREPARED FOR PERMIT APPLICATION AND IS SUBJECT TO REVIEW AND MODIFICATION BY GOVERNMENTAL AGENCIES

TITLE
STRUCTURAL INSTALLATION & SITE-BUILT WOOD FRAMING DETAILS
PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S7.00

R4S ZONING COMPLIANCE

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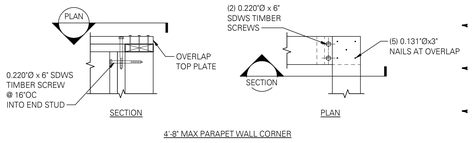
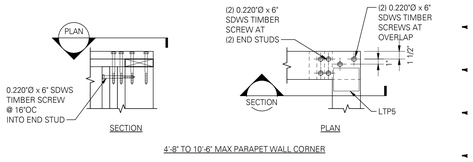


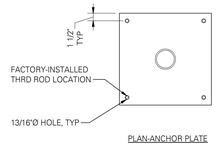
4'-8" MAX PARAPET WALL CORNER



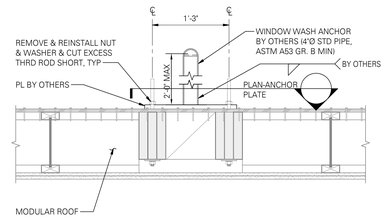
4'-8" TO 10'-6" MAX PARAPET WALL CORNER

7 TYPICAL PARAPET TOP PLATE OVERLAP DETAIL

SCALE: 1" = 1'-0"

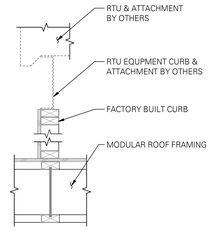


PLAN-ANCHOR PLATE



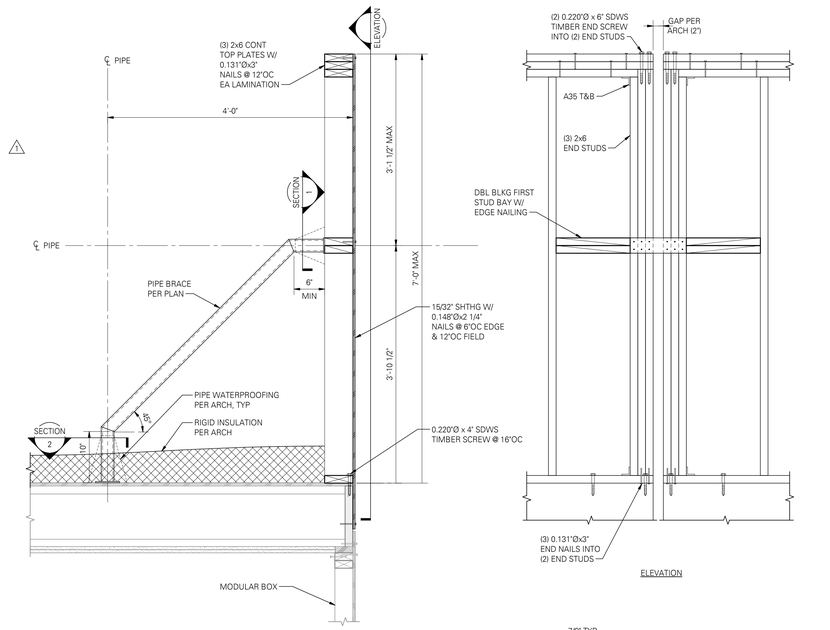
2 WINDOW WASH ANCHOR - FIELD INSTALL

SCALE: 1" = 1'-0"

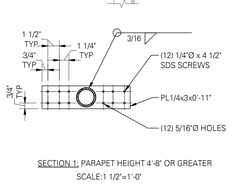


4 TYPICAL ROOF TOP EQUIPMENT SUPPORT

SCALE: 1" = 1'-0"

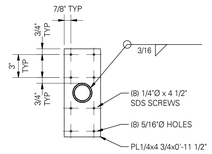


ELEVATION



SECTION 1: PARAPET HEIGHT 4'-8" OR GREATER

SCALE:1 1/2"=1'-0"

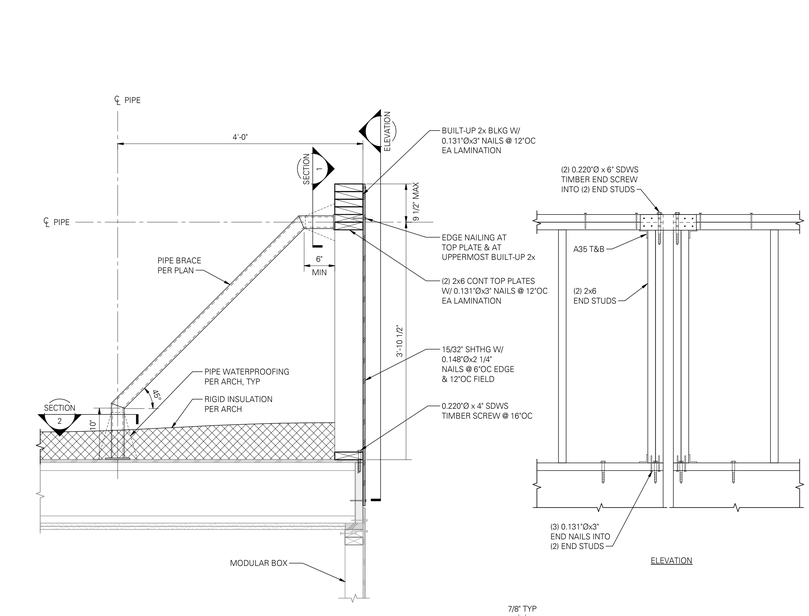


SECTION 2

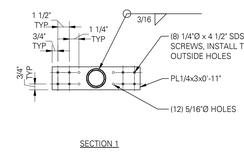
SCALE:1 1/2"=1'-0"

9 BRACED PARAPET DETAIL (4'-8" TO 7'-0" TALL)

SCALE: 1" = 1'-0"

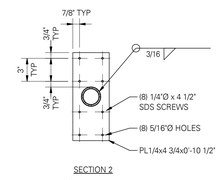


ELEVATION



SECTION 1

SCALE:1 1/2"=1'-0"



SECTION 2

SCALE:1 1/2"=1'-0"

11 BRACED PARAPET DETAIL (4'-0" TO 4'-8" TALL)

SCALE: 1 1/2" = 1'-0"

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PROJECT
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STAIR
1-STR2

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KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER
PROJECT TEAM MEMBERS
EO
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R4S ZONING COMPLIANCE

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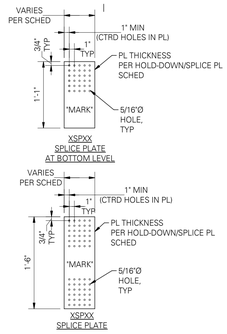
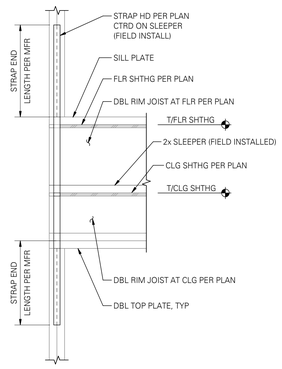


NOTES:

1. REFERENCE HOLD-DOWN/SPLICE PLATE SCHEDULE FOR ADDITIONAL INFORMATION.
2. 'MARK' TO BE A PAINTED OR STAMPED INDICATOR OF STRAP OR SPLICE PLATE TYPE PER SCHEDULE.
3. MODULAR MANUFACTURER AND GENERAL CONTRACTOR SHALL COORDINATE WHO PROVIDES THE SPLICE PLATES FOR FIELD INSTALLATION.

3 TYPICAL STRAP HOLD-DOWN DETAIL

SCALE: 1" = 1'-0"



AT 'C' TYPE STRAP

3 STRAP HOLD-DOWN AT MODULAR STACK

SCALE: 1" = 1'-0"

HOLD-DOWN/SPLICE PLATE SCHEDULE

01420M

[1, 2, 3] ← INDICATES FOOTNOTES

	TYPE	SCREWS [4, 7]	MIN WELD AT CONCRETE SLAB [9]	SPLICE PLATE THICKNESS (MIL/GA) [11]	MIN SPLICE PLATE WIDTH	CAPACITY [8]	NOTES
SIMPSON STRAPS	MSTC52	(36) 0.148"Ø x1 1/2" NAILS	N/A	N/A	N/A	3.4k	[10]
	MSTC66	(54) 0.148"Ø x1 1/2" NAILS				5.3k	[10]
	(2) MSTC52	(72) 0.148"Ø x1 1/2" NAILS				6.9k	[10]
	(2) MSTC66	(108) 0.148"Ø x1 1/2" NAILS				10.7k	[10]
	(3) MSTC66	(162) 0.148"Ø x1 1/2" NAILS				16.1k	[10]
	(4) MSTC66	(216) 0.148"Ø x1 1/2" NAILS				21.5k	[10]
	(5) MSTC66	(270) 0.148"Ø x1 1/2" NAILS				26.9k	[10]
	(6) MSTC66	(432) 0.148"Ø x1 1/2" NAILS				32.3k	[10]
CUSTOM STRAPS	3SP8	(8) #12	E 1/8"-3"	68MIL/14GA	3"	1.8k	[5,9]
	3SP14	(14) #12	E 1/8"-3"			3.6k	[5,9]
	3SP20	(20) #12	E 1/8"-3"			5.4k	[5,9]
	4SSP20	(20) #12	E 1/8"-3"	97MIL/12GA	4 1/2"	7.5k	[5,9]
	4SSP26	(26) #12	E 1/8"-4"			9.5k	[5,9]
	4SSP30	(30) #12	E 1/8"-4 1/2"			11.3k	[5,9]
	6SP26	(26) 1/4-28 TEKS SCREWS	E 1/4"-4"	1/4" THICK	6"	16.1k	[6, 9]
	6SP34	(34) 1/4-28 TEKS SCREWS	E 1/4"-5"			21.5k	[6, 9]
	6SP42	(42) 1/4-28 TEKS SCREWS	E 1/4"-6"			26.8k	[6, 9]
	6SP50	(50) 1/4-28 TEKS SCREWS	E 1/4"-6"			32.2k	[6, 9]

NOTES:

[1] SOME HOLD-DOWN TYPES MAY NOT BE USED ON THIS PROJECT.

[2] TYPICAL HOLD-DOWN DETAILS PER 6/S-603, 8/S-603 AND 16/S-603. SPLICE DETAIL PER 3/S-603.

[3] BASED ON 11 1/4" DEEP FLOOR AND 7 1/4" DEEP CEILING.

[4] TOTAL FASTENERS SPECIFIED, USE HALF THE FASTENERS ABOVE AND BELOW THE LEVEL BEING CONNECTED. AT CUSTOM STRAPS FILL FOUR CORNER HOLES THEN DISTRIBUTE FASTENERS EVENLY.

[5] #12 x 1 1/4" SELF-DRILLING/SELF TAPPING SCREWS WITH MINIMUM HEAD DIAMETER EQUAL TO 3/8".

[6] 1/4-28 TEKS SELF-DRILLING SCREWS PER ESR-1976.

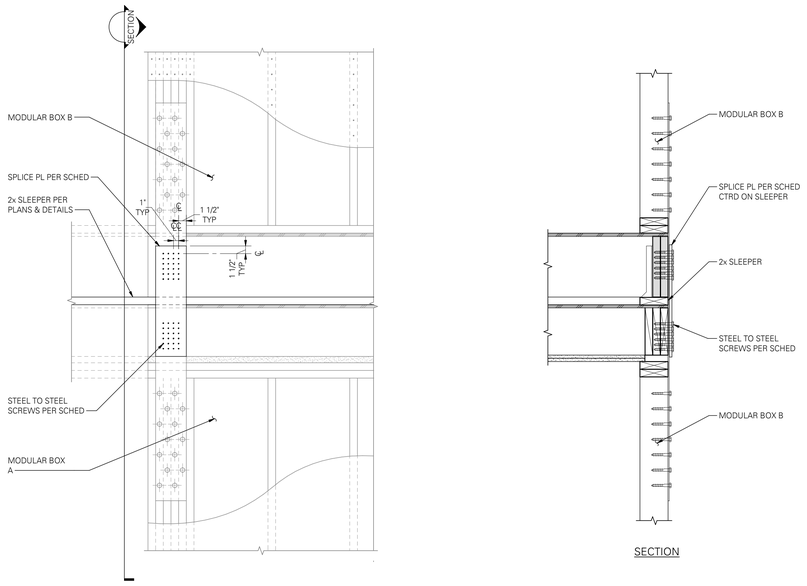
[7] AT FOUNDATION OR CONCRETE SLAB, BOTTOM CONNECTION IS WELDED AND ONLY HALF THE SPECIFIED SCREWS ARE REQUIRED.

[8] BASED ON ALLOWABLE STRESS DESIGN.

[9] "WELD SIZE" - "WELD LENGTH". MINIMUM REQUIRED IS SHOWN.

[10] STRAPS INSTALLED DIRECTLY TO FACTORY-BUILT STUDS. USE 0.148"Ø x2 1/2" NAILS IF INSTALLING OVER 1/2" MAX SHEATHING.

[11] 68 AND 97 MIL PLATES SHALL BE ASTM A653 GRADE D, Fy=50ksi AND 1/4" PLATES SHALL BE ASTM A36, Fy=36ksi.



SECTION

9 FACTORY INSTALLED HOLD-DOWN/STRAP SCHEDULE - DOUG FIR STUDS

SCALE: 1" = 1'-0" ((01420MI))

SHEAR WALL SCHEDULE

01431BM

W FOR 0.148"Ø x 2 1/4" NAILS (CBC 2016) [17]
SOME SHEAR WALLS TYPES NOTED MAY NOT BE USED ON THIS PROJECT

	FACTORY & FIELD INSTALL					FACTORY INSTALLED				FIELD INSTALLED			
MARK	WALL SHEATHING APA RATED [1, 2, 12]	STUD PLATES/ BLOCKING SPECIES	PANEL NAILING SIZE	PANEL NAILING EDGE SPACING	PANEL NAILING FIELD SPACING	PANEL EDGE BLOCKING/ STUD SIZE	2x SOLE PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW [18]	PLATE CONNECTION THRU MAX (2) 2x [18]	2x PLATE CONNECTION THRU MAX (2) LAYERS 5/8" GYP	FACTORY INSTALLED CLIPS (LTP5) [7,8]	2x (MIN) PLATE CONNECTION TO FOUNDATION [11]	RIM JOIST CONNECTION TO SLEEPER (A35) [7,8]	2x SLEEPER CONNECTION TO CEILING RIM [18]	SHEAR CAPACITY LBS/FT (ASD)
W6	7/16"	DOUG-FIR	0.148"Ø x2 1/4"	6"OC	12"OC	2x	1/4"Ø x4" SDS @ 16"OC	1/4"Ø x6" SDS @ 16"OC	0.220"Ø x 6" SDWS @ 16"OC	CLIP @ 16"OC	5/8"Ø x 48"OC	CLIP @ 24"OC	0.148"Ø x 3 1/4" @ 6"OC	310
W4				4"OC STAGGER	12"OC	3x	1/4"Ø x4" SDS @ 10"OC	1/4"Ø x6" SDS @ 12"OC	0.220"Ø x 6" SDWS @ 10"OC	CLIP @ 14"OC	5/8"Ø x 32"OC	CLIP @ 18"OC	0.148"Ø x 3 1/4" @ 4"OC	460
W3				3"OC STAGGER	12"OC		1/4"Ø x4" SDS @ 8"OC	1/4"Ø x6" SDS @ 9"OC	0.220"Ø x 6" SDWS @ 8"OC	CLIP @ 10"OC	5/8"Ø x 24"OC	CLIP @ 12"OC	1/4"Ø x4" SDS @ 8"OC	600
W2				2"OC STAGGER	12"OC		1/4"Ø x4" SDS @ 6"OC	1/4"Ø x6" SDS @ 6"OC	0.220"Ø x 6" SDWS @ 6"OC	CLIP @ 8"OC	5/8"Ø x 18"OC	CLIP @ 10"OC	1/4"Ø x4" SDS @ 6"OC	770
W2A	7/16" STRUCT 1			2"OC STAGGER	12"OC		1/4"Ø x4" SDS @ 5"OC	1/4"Ø x6" SDS @ 5"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 10"OC	CLIP @ 8"OC	5/8"Ø x 18"OC	CLIP @ 9"OC	1/4"Ø x4" SDS @ 5"OC	870
2W4	7/16" BOTH SIDES			4"OC	12"OC		1/4"Ø x4" SDS @ 5"OC	1/4"Ø x6" SDS @ 6"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 10"OC	CLIP @ 6"OC	5/8"Ø x 16"OC	CLIP @ 9"OC	1/4"Ø x4" SDS @ 5"OC	920
2W3				3"OC STAGGER	12"OC		(2) ROWS 1/4"Ø x4" SDS @ 8"OC	(2) ROWS 1/4"Ø x6" SDS @ 8"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 8"OC	CLIP @ 8"OC W/ SDS SCREWS	5/8"Ø x 12"OC	CLIP @ 6"OC	(2) ROWS 1/4"Ø x4" SDS @ 8"OC	1200
2W2				2"OC STAGGER	12"OC		(2) ROWS 1/4"Ø x4" SDS @ 6"OC	(2) ROWS 1/4"Ø x6" SDS @ 6"OC	(2) ROWS 0.220"Ø x 6" SDWS @ 6"OC	CLIP @ 6"OC W/ SDS SCREWS	5/8"Ø x 12"OC	CLIP @ 5 1/2"OC	(2) ROWS 1/4"Ø x4" SDS @ 6"OC	1540

BUNDLED STUD FASTENING SCHEDULE

MARK	ADJOINING PANEL EDGE: 0.131"Ø x3" NAIL SPACING	ADJOINING PANEL EDGE: CTX #14-3 SCREW SPACING	COMPRESSION STUDS: 0.131"Ø x3" NAIL THRU SINGLE 2x	COMPRESSION STUDS: CTX #14-6 SCREW THRU (4) 2x
W6	(2) ROWS @ 9"OC	10"OC	(2) ROWS @ 9"OC	16"OC STAGG
W4	(2) ROWS @ 6"OC	6"OC	(2) ROWS @ 6"OC	12"OC STAGG
W3	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 4"OC STAGG	9"OC STAGG
W2	(2) ROWS @ 4"OC STAGG	(2) ROWS @ 6"OC	(2) ROWS @ 4"OC STAGG	6"OC STAGG
W2A	(2) ROWS @ 4"OC STAGG	(2) ROWS @ 6"OC	(2) ROWS @ 2"OC STAGG	6"OC STAGG
2W4	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 3"OC STAGG	6"OC STAGG
2W3	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 2"OC STAGG	(2) ROWS @ 6"OC
2W2	(2) ROWS @ 4"OC STAGG	4"OC STAGG	(2) ROWS @ 2"OC STAGG	(2) ROWS @ 6"OC

NOTES:

[1] APA RATED WOOD STRUCTURAL PANEL SHEATHING SHALL BE VENEER PLYWOOD OR ORIENTED STRAND BOARD. WHERE INDICATED, STRUCTURAL 1 APA RATED PANELS MAY BE USED TO INCREASE CAPACITY. INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY.

[2] WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON THE OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUD.

[3] BLOCKING IS REQUIRED AT ALL PANEL EDGES IN SHEAR WALLS.

[4] PROVIDE SHEAR WALL SHEATHING AND NAILS FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLD-DOWN REQUIREMENTS PER PLANS.

[5] SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLD-DOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLD-DOWN POSTS. ADDITIONAL INFORMATION PER HOLD-DOWN DETAILS.

[6] INTERMEDIATE FRAMING TO BE 2x MINIMUM MEMBERS. ATTACH SHEATHING TO INTERMEDIATE FRAMING WITH 0.148"Ø x2 1/4" NAILS AT 12"OC WHERE STUDS ARE SPACED AT 16"OC AND 0.148"Ø x2 1/4" NAILS AT 6"OC WHERE STUDS ARE SPACED AT 24"OC.

[7] BASED ON 0.131"Ø x1 1/2" NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131"Ø x2 1/2" NAILS WHERE INSTALLED OVER SHEATHING.

[8] FRAMING CLIPS: A35 OR LTP5 OR APPROVED EQUIVALENT. USE LTP4 OR A35 WITH #9x1 1/2" SDS SCREWS WHERE INDICATED.

[9] WHERE BOTTOM PLATE ATTACHMENT SPECIFIES (2) ROWS OF FASTENERS, PROVIDE DOUBLE JOIST, DOUBLE RIM JOIST OR EQUAL BELOW. STAGGER FASTENERS IN ROWS 1 1/2" APART MINIMUM.

[10] ANCHOR BOLTS SHALL BE PROVIDED WITH HOT-DIPPED GALVANIZED STEEL PLATE WASHERS 0.229"x3"x3" MINIMUM. THE HOLE IN THE PLATE WASHER MAY BE DIAGONALLY SLOTTED 13/16"x1 3/4" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. PLATE WASHER TO EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDE(S) WITH SHEATHING. INCREASE PLATE WASHER SIZE AS REQUIRED. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.

[11] PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED (ELECTRO-PLATING IS NOT ACCEPTABLE) SCREWS AND CONNECTOR PLATES (FRAMING ANGLES, ETC) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS. ADDITIONAL INFORMATION PER STRUCTURAL GENERAL NOTES.

[12] WHERE WOOD SHEATHING (W) IS APPLIED OVER GYPSUM SHEATHING (G), CONTACT THE ENGINEER OF RECORD FOR ALTERNATE NAILING REQUIREMENTS.

[13] AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN PLACE OF SINGLE 3x STUD. DOUBLE 2x STUDS SHALL BE CONNECTED TOGETHER BY FASTENING THE STUDS TOGETHER PER SCHEDULE.

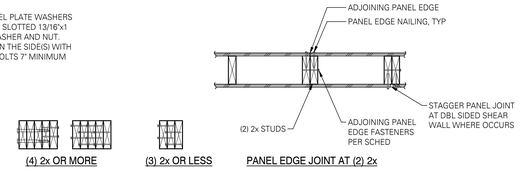
[14] AT CLOSURE SHEATHING BETWEEN MODULES, NAILS SHALL BE FIELD INSTALLED.

[15] WHERE "W" INDICATES WOOD SHEATHING AND "X" INDICATES EDGE NAIL SPACING, AND "A" INDICATES STRUCT 1 SHEATHING.

[16] EDGE NAILS SHALL BE LOCATED 3/8" FROM PANEL EDGES.

[17] BEARING WALLS PER PLAN NOT DESIGNED AS SHEAR WALLS MAY HAVE SHEATHING PER MODULAR MANUFACTURER. PROVIDE 0.131"Ø x2 1/2" NAILS @ 6"OC AT EDGES AND AT 12"OC AT INTERMEDIATE FRAMING MINIMUM. PROVIDE 0.131"Ø x3" NAILS @ 16"OC AT SOLE PLATE FASTENING.

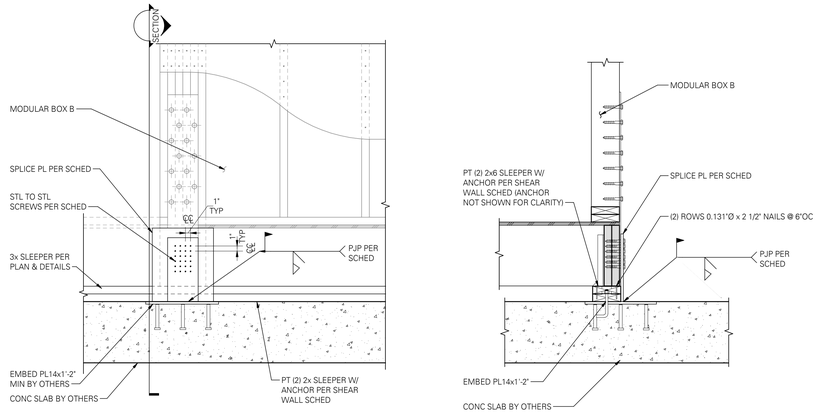
[18] "CTX" CONSTRUCTION LAG SCREWS ARE PRODUCED BY WESTERN BUILDERS SUPPLY. TESTING RESULTS AVAILABLE UPON REQUEST TO MANUFACTURER, REFERENCE ELEMENT MECHANICAL TESTING REPORT ESP012657P-233. "SDWS" REFERS TO SDWS TIMBER SCREWS PRODUCED BY SIMPSON PER IAPMO-UES ER-192.



(4) 2x OR MORE (3) 2x OR LESS PANEL EDGE JOINT AT (2) 2x

5 MODULAR HOLD-DOWN ELEVATION AT MODULAR STACK

SCALE: 1" = 1'-0"



SECTION

9 MODULAR HOLD-DOWN ELEVATION AT FLOOR

SCALE: 1" = 1'-0"

10 SHEAR WALL SCHEDULE - DOUG-FIR LARCH

SCALE: 1" = 1'-0" (01431BM)

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DCI ENGINEERS

818 Stewart Street, Suite 1000
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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

STAIR
1-STR2

NO.	DATE	REVISION
	10/12/18	100% SCHEMATIC DESIGN

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
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TITLE
STRUCTURAL INSTALLATION & SITE-BUILT WOOD FRAMING DETAILS
PROJECT NO.
18141-0349
DATE
07/24/18

SHEET NUMBER
S7.02

R4S ZONING COMPLIANCE

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Modular Layout
10/7/18

PROPERTY LINE

PROPERTY LINE

41 41.1 40 39 38 37 35 33 32 30 29

E D C B A

20'-2" 19'-7" 11'-4" 72'-5" 26'-9"

11'-2" 11'-0" 13'-4" 11'-0" 13'-4"

22'-1" 24'-4" 24'-4" 13'-4" 46'-4" 46'-4" 24'-4" 35'-4" 24'-4"

TEMP FRAMING @ OPEN CORNER

TEMP FRAMING @ OPEN CORNER

TEMP FRAMING @ OPEN CORNER

TEMP FRAMING @ OPEN CORNER

TEMP FRAMING @ OPEN CORNER

TEMP FRAMING @ OPEN CORNER

TEMP FRAMING @ OPEN CORNER

2E 142

1B 142

2D 143

2A 141

IDF 141A

STAIR 1-ST/R3

3A 140

3A 139

1A 138

3A 137

1B 136

1B 135

2A 134

IDF 134A

2A 133

2A 131

ELEC. 132

DAS 126C

1 LEVEL 01 - FLOOR PLAN - A
1/8" = 1'-0"

WEST

A 4 STORY APARTMENTS

B 3 STORY APARTMENTS

C 4 STORY APARTMENTS

EAST

N

0 4' 8' 16'
Scale: 1/8" = 1'-0"

1:30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
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PREPARED FOR
MIDPEN HOUSING

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TITLE
LEVEL 01 - FLOOR PLAN - A

PROJECT NO.
1526000
DATE
07/24/18

SHEET NUMBER
MA2.01a
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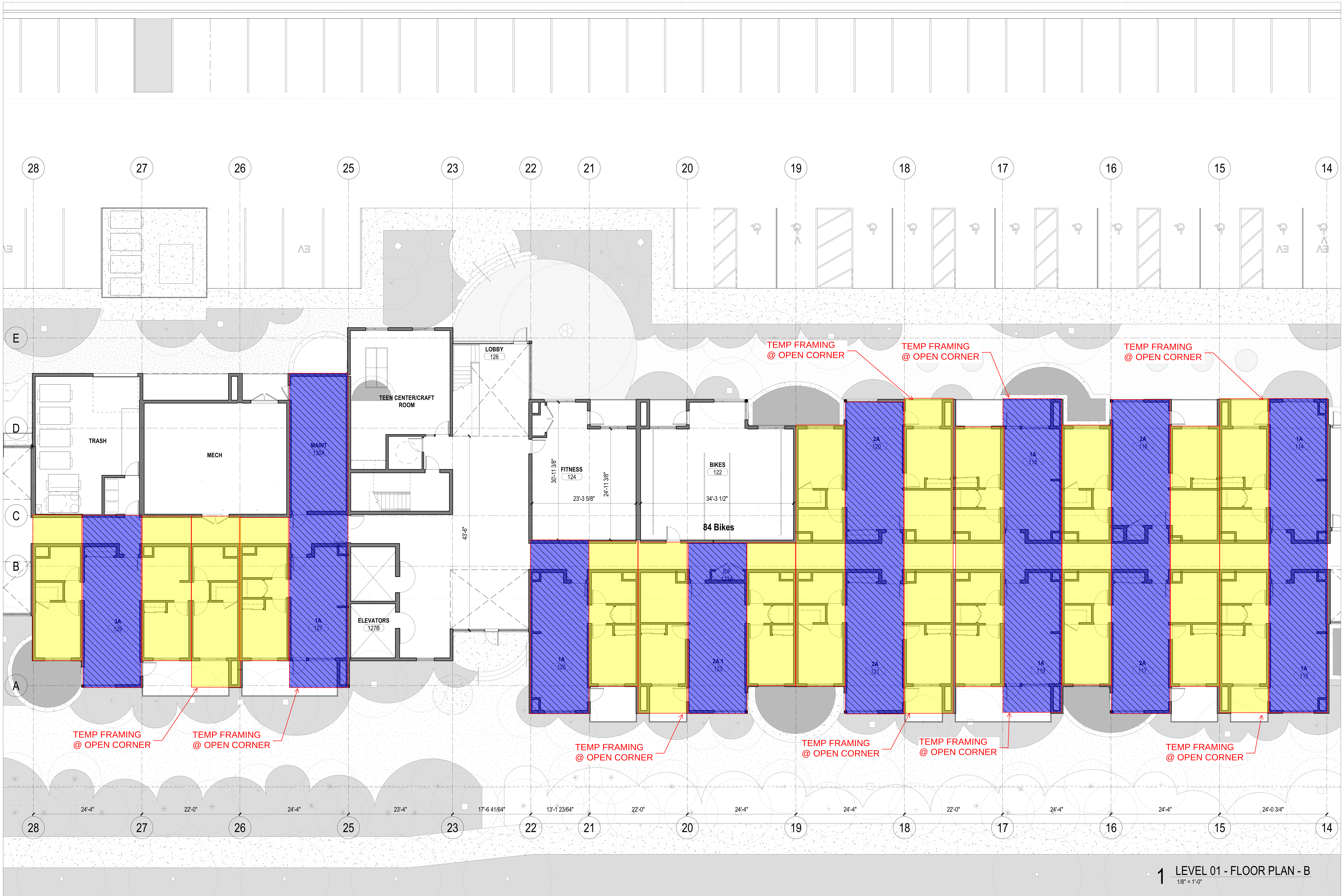
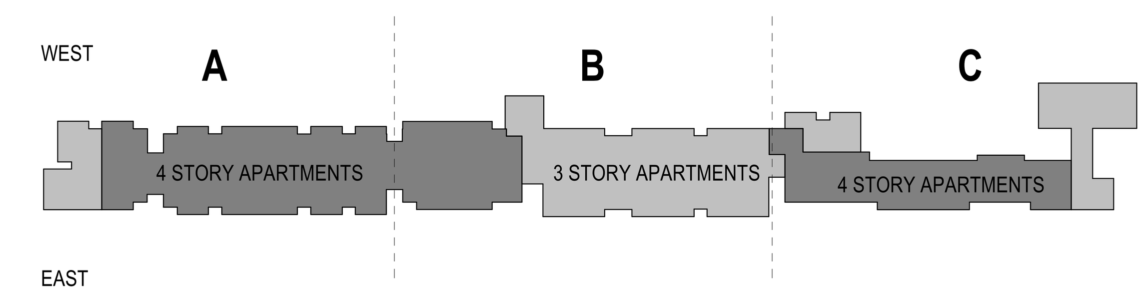


1 LEVEL 01 - FLOOR PLAN - B
1/8" = 1'-0"



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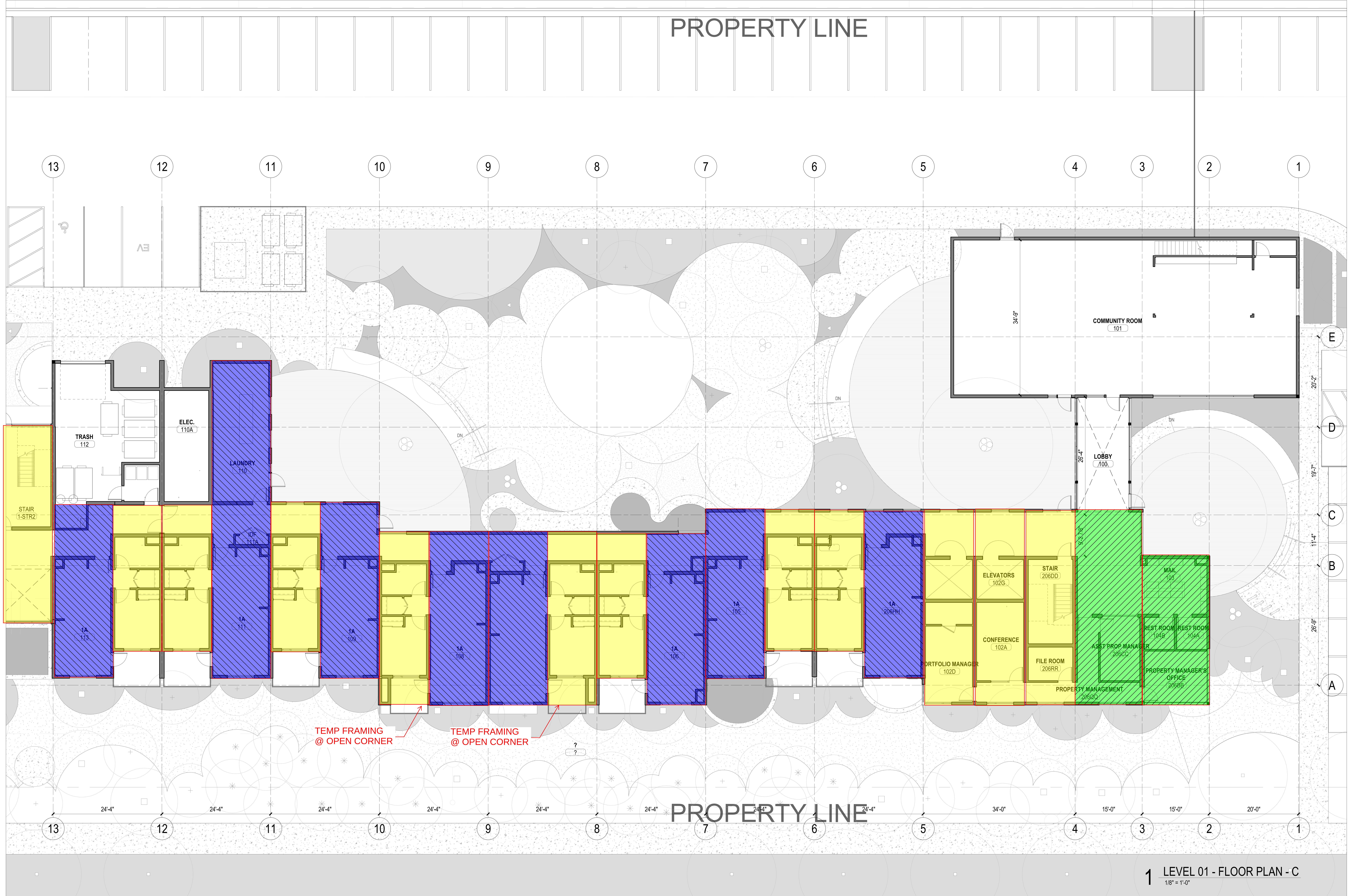

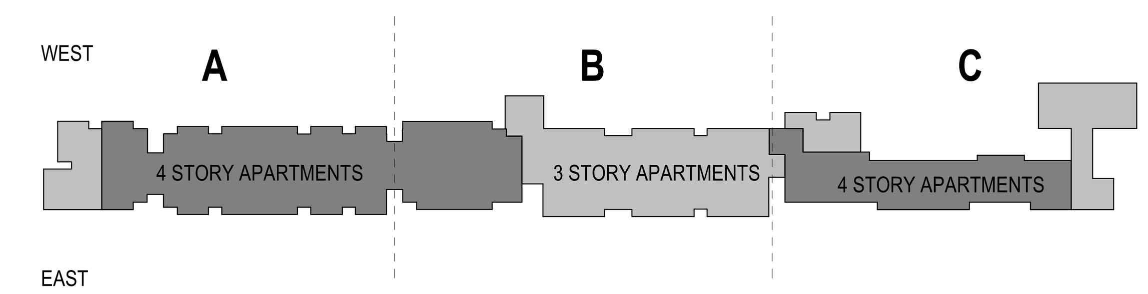

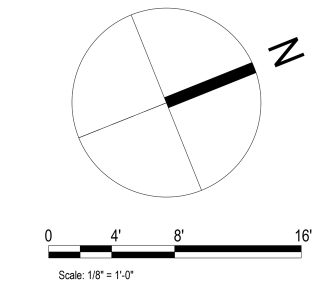

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PROJECT
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LOCATION
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TITLE
LEVEL 01 - FLOOR PLAN - C

PROJECT NO.
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DATE
07/24/18

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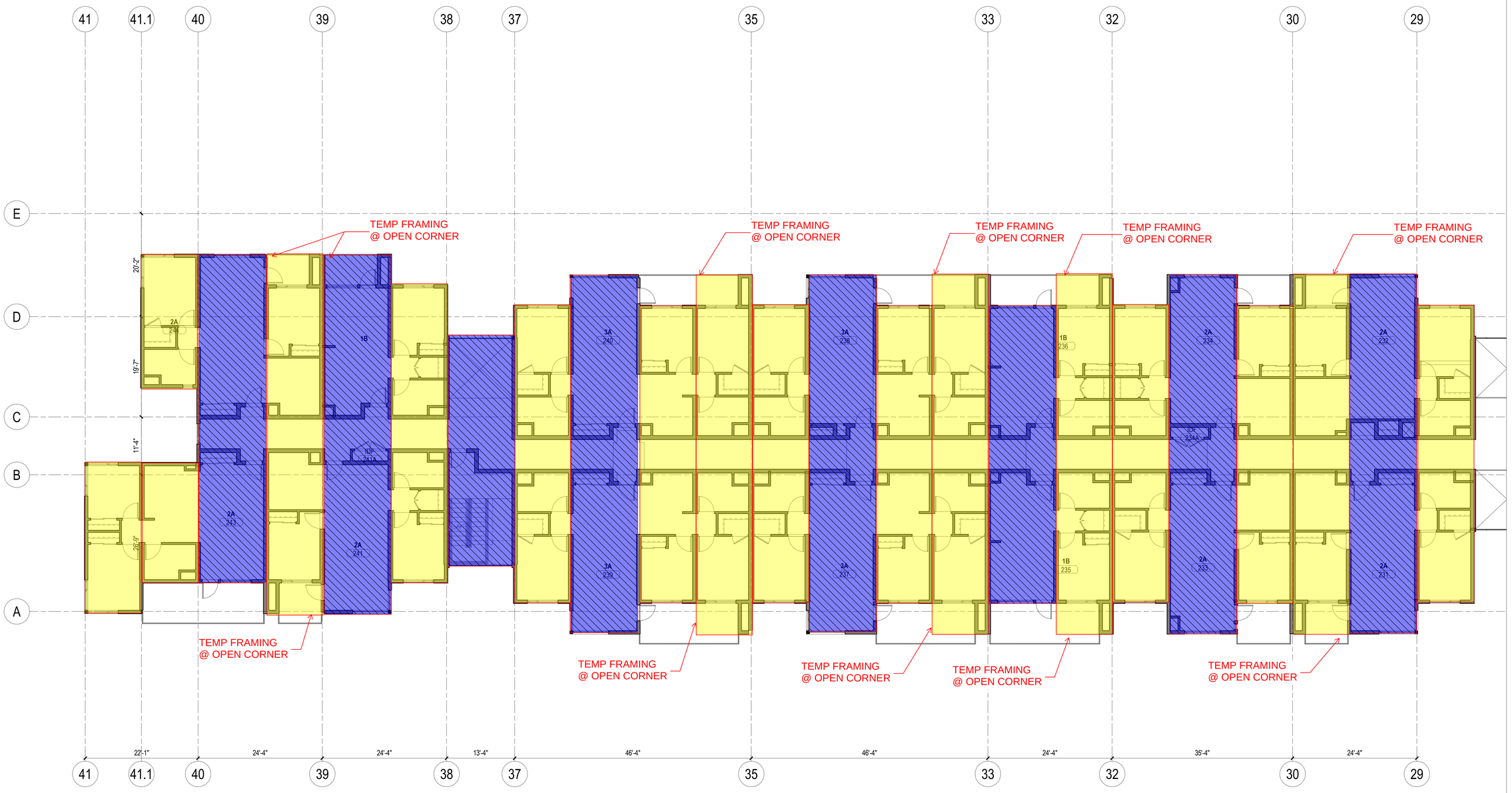
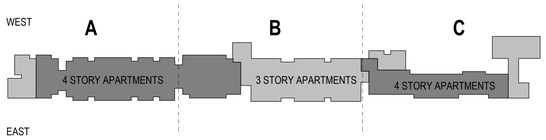
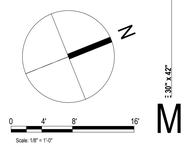


1 LEVEL 02 - FLOOR PLAN - A
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

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KB
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PROJECT DESIGNER

PROJECT TEAM MEMBERS
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TITLE
LEVEL 02 - FLOOR PLAN - A

PROJECT NO.
1526000
DATE
07/24/18

SHEET NUMBER
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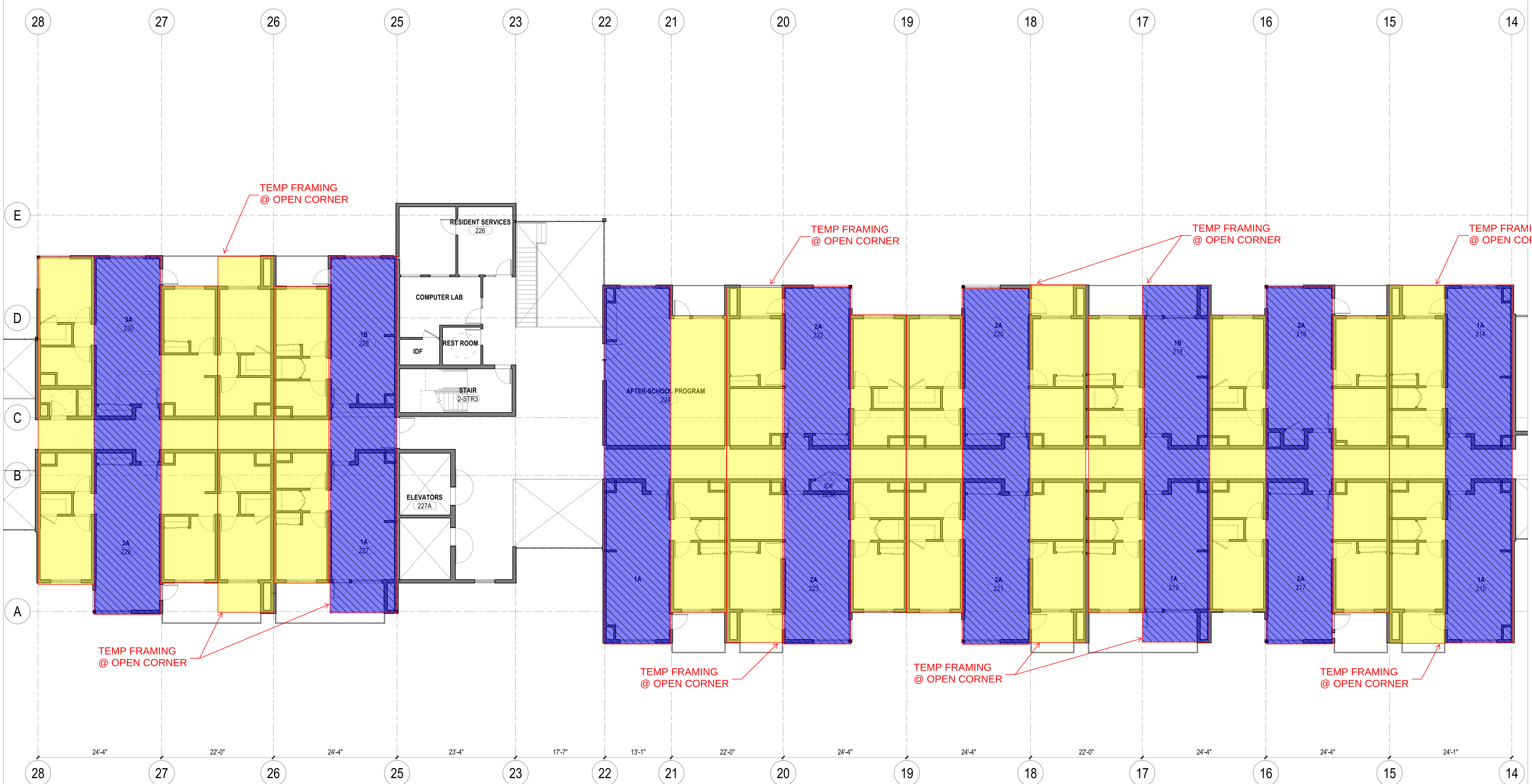
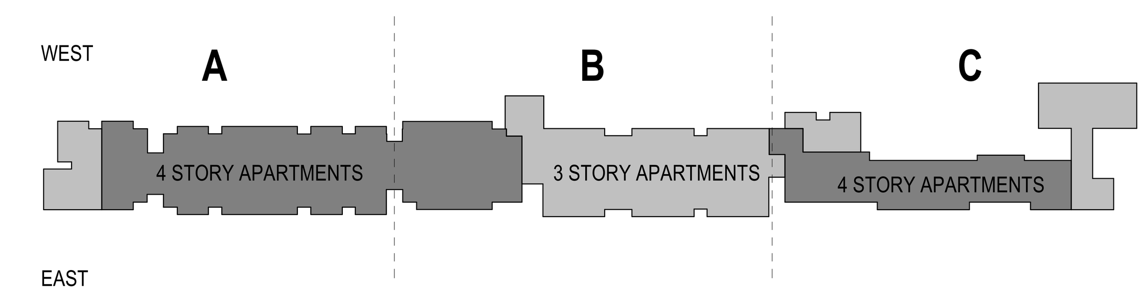
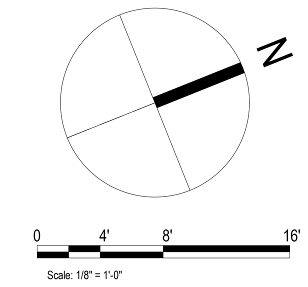
ORIG. 36" x 42"



1 LEVEL 02 - FLOOR PLAN - B

1/8" = 1'-0"





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TITLE
LEVEL 02 - FLOOR PLAN - B

PROJECT NO.
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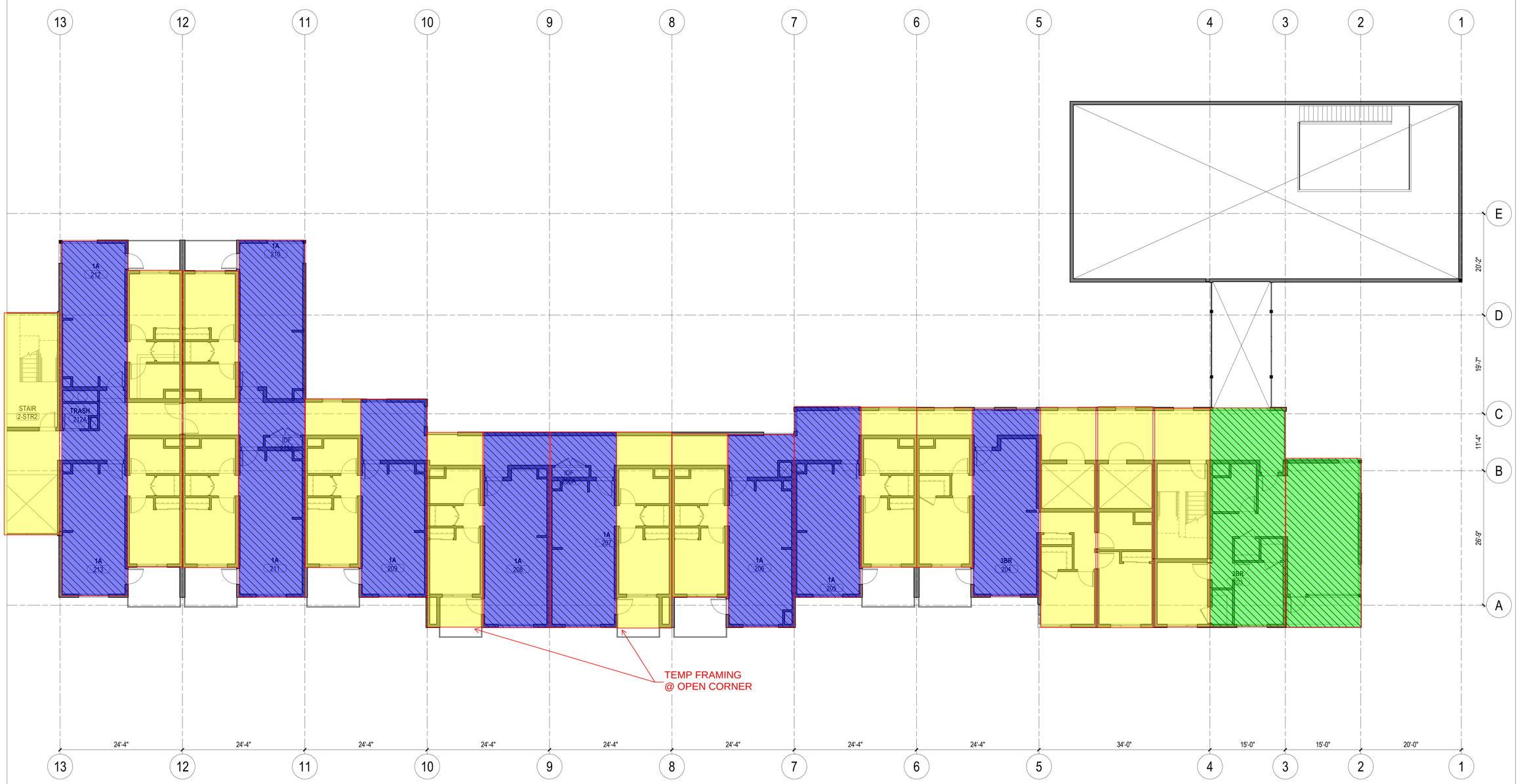
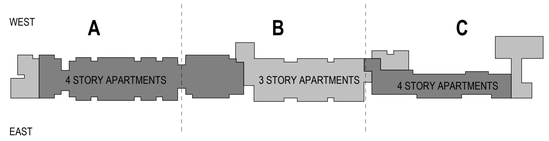
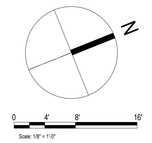


1 LEVEL 02 - FLOOR PLAN - C
1/8" = 1'-0"





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ORIG. 30" x 42"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

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AT
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TITLE
LEVEL 02 - FLOOR PLAN - C

PROJECT NO.
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DATE
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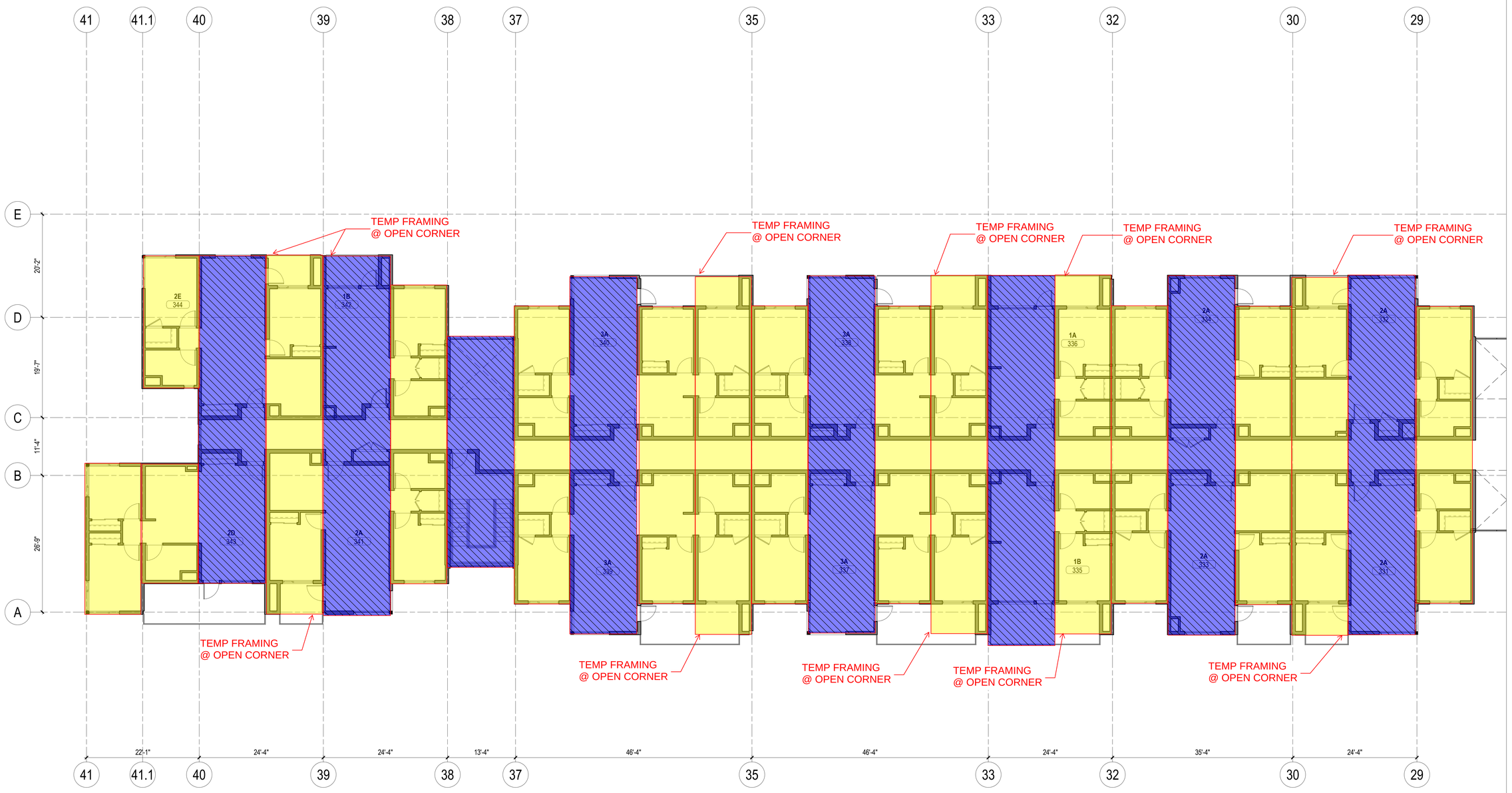
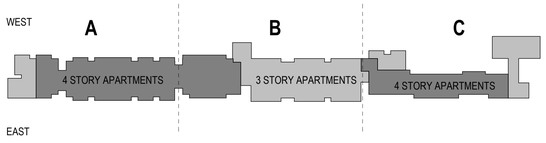
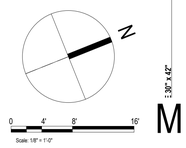


1 LEVEL 03 - FLOOR PLAN - A
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
**1345 WILLOW ROAD
MENLO PARK, CA**

PREPARED FOR
MIDPEN HOUSING

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LEVEL 03 - FLOOR PLAN - A

PROJECT NO.
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07/24/18

SHEET NUMBER
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2.36" x 4.42"

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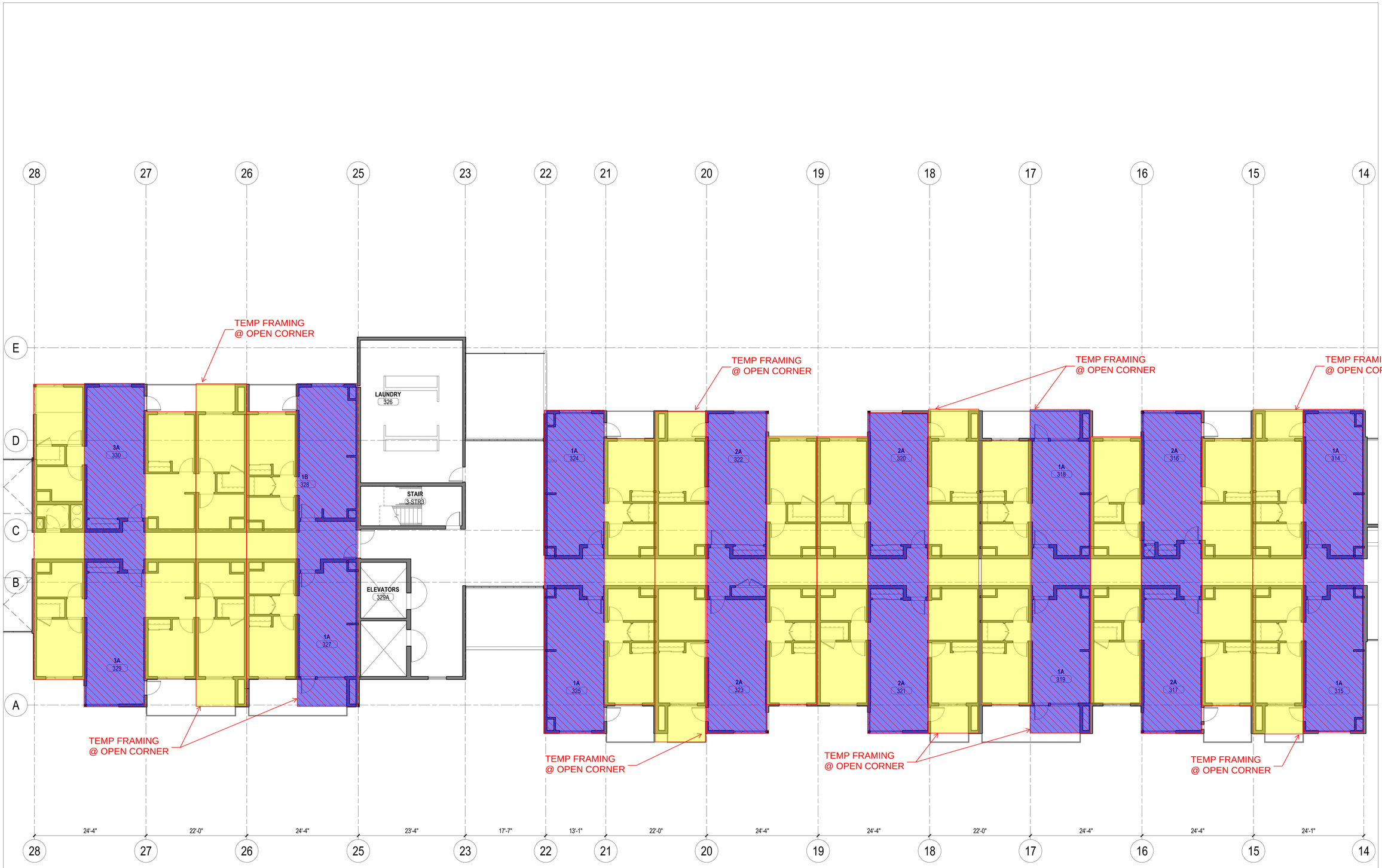
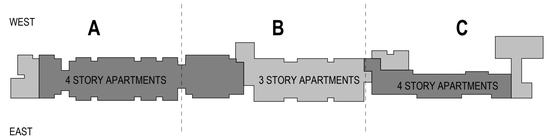
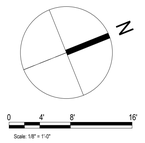


1 LEVEL 03 - FLOOR PLAN - B
1/8" = 1'-0"





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Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

mithun.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
LEVEL 03 - FLOOR PLAN - B

PROJECT NO.
1526000
DATE
07/24/18

SHEET NUMBER
MA2.03b
R4S ZONING COMPLIANCE

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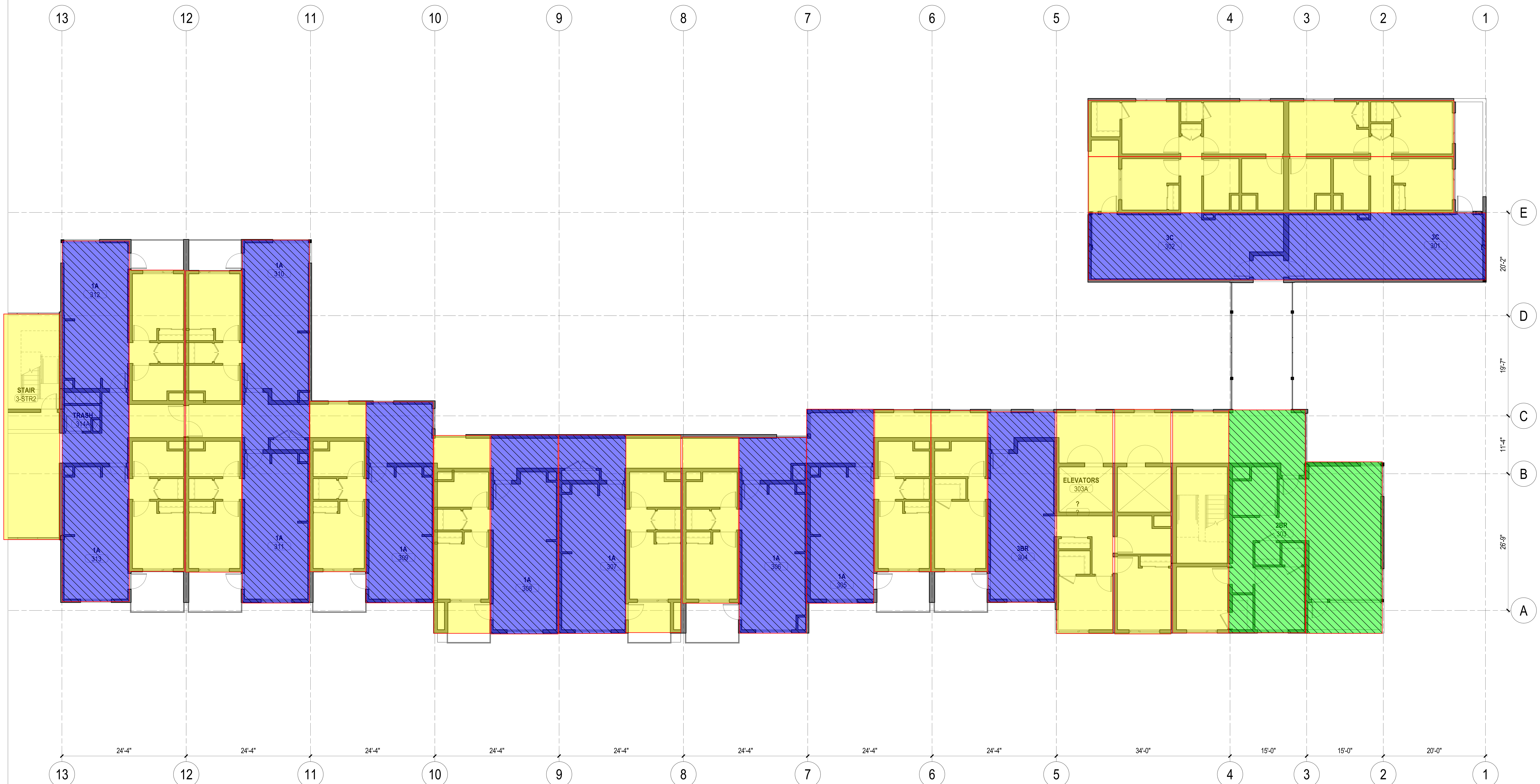
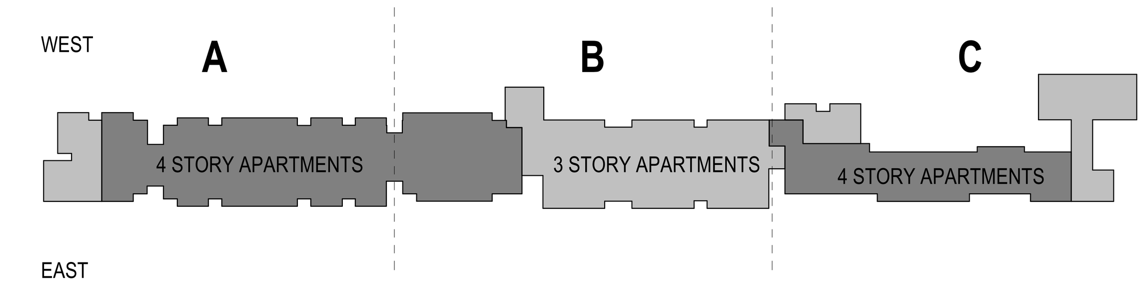
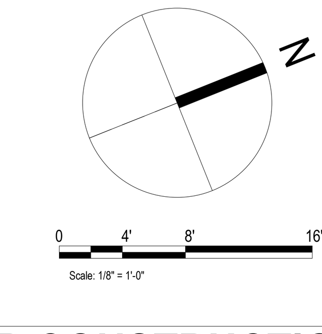
30" x 42"

10/3/2018 5:54:38 PM



1 LEVEL 03 - FLOOR PLAN - C
1/8" = 1'-0"





Scale: 1/8" = 1'-0"

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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO	DATE	REVISION

DESIGN PARTNER
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PROJECT MANAGER
KB
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TITLE
LEVEL 03 - FLOOR PLAN - C

PROJECT NO.
1526000
DATE
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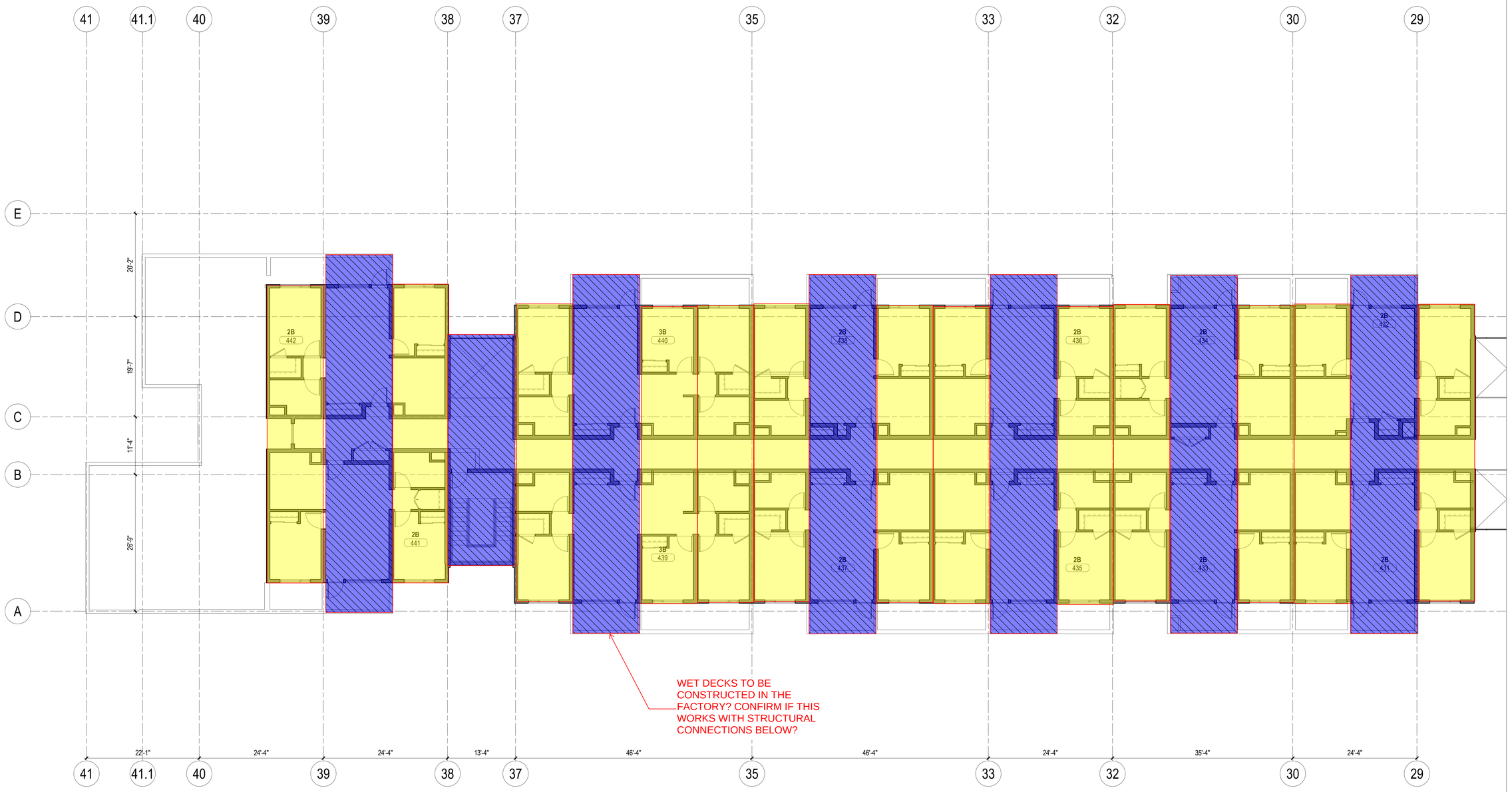

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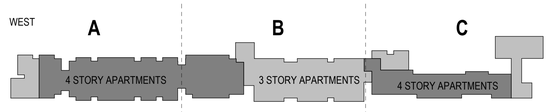
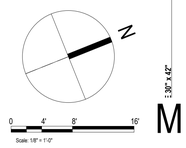
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

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AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
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TITLE
LEVEL 04 - FLOOR PLAN - A

PROJECT NO.
1526000
DATE
07/24/18

SHEET NUMBER
MA2.04a
R4S ZONING COMPLIANCE

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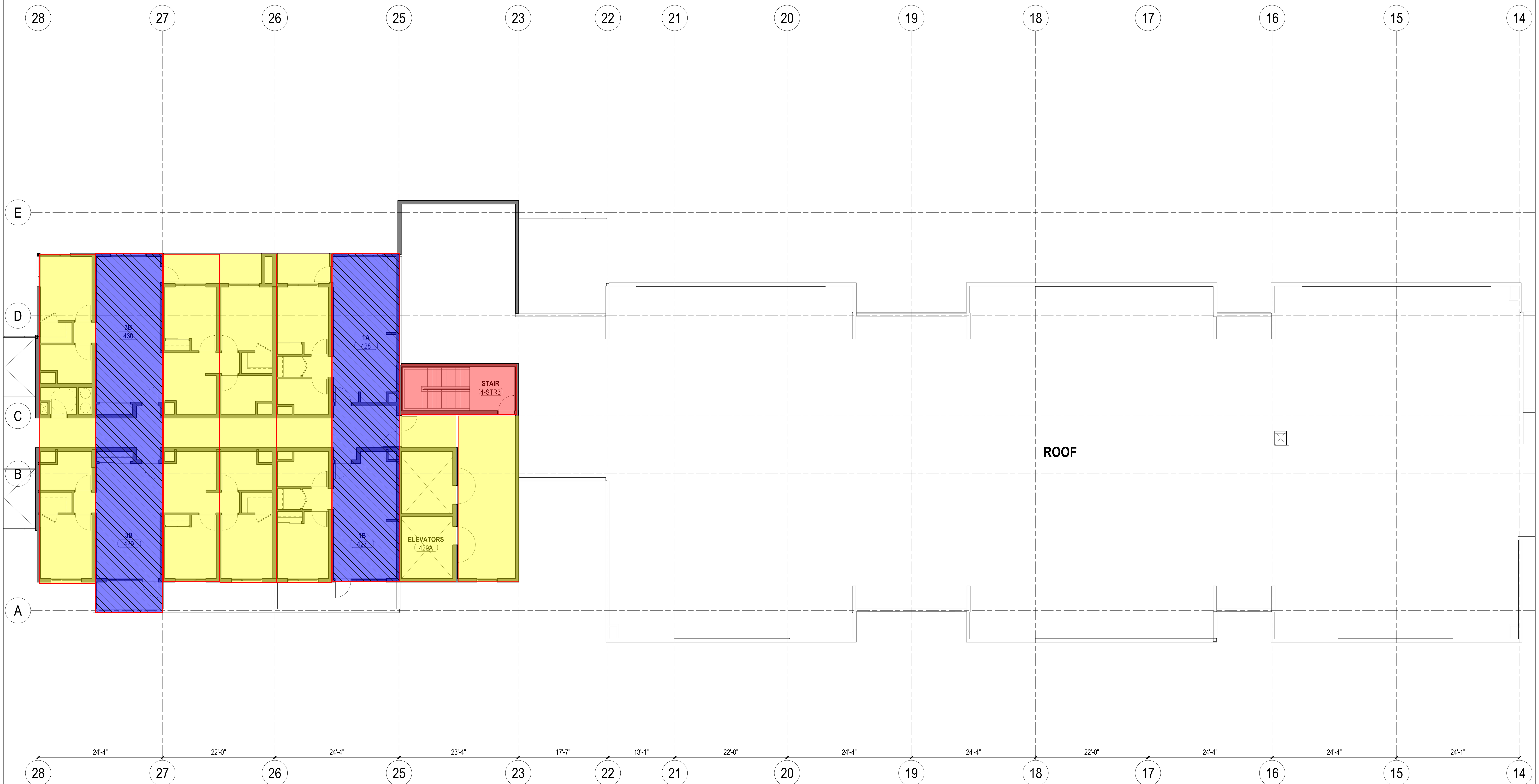
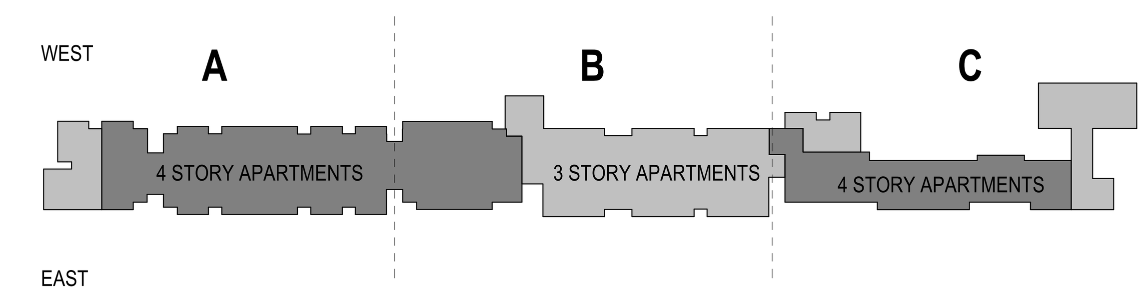
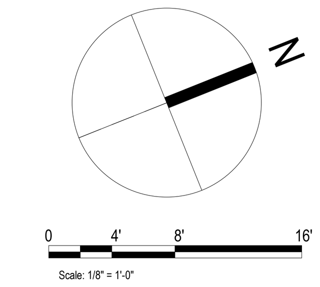
2:36" x 42"



1 LEVEL 04 - FLOOR PLAN - B
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
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TITLE
LEVEL 04 - FLOOR PLAN - B

PROJECT NO.
1526000
DATE
07/24/18

SHEET NUMBER
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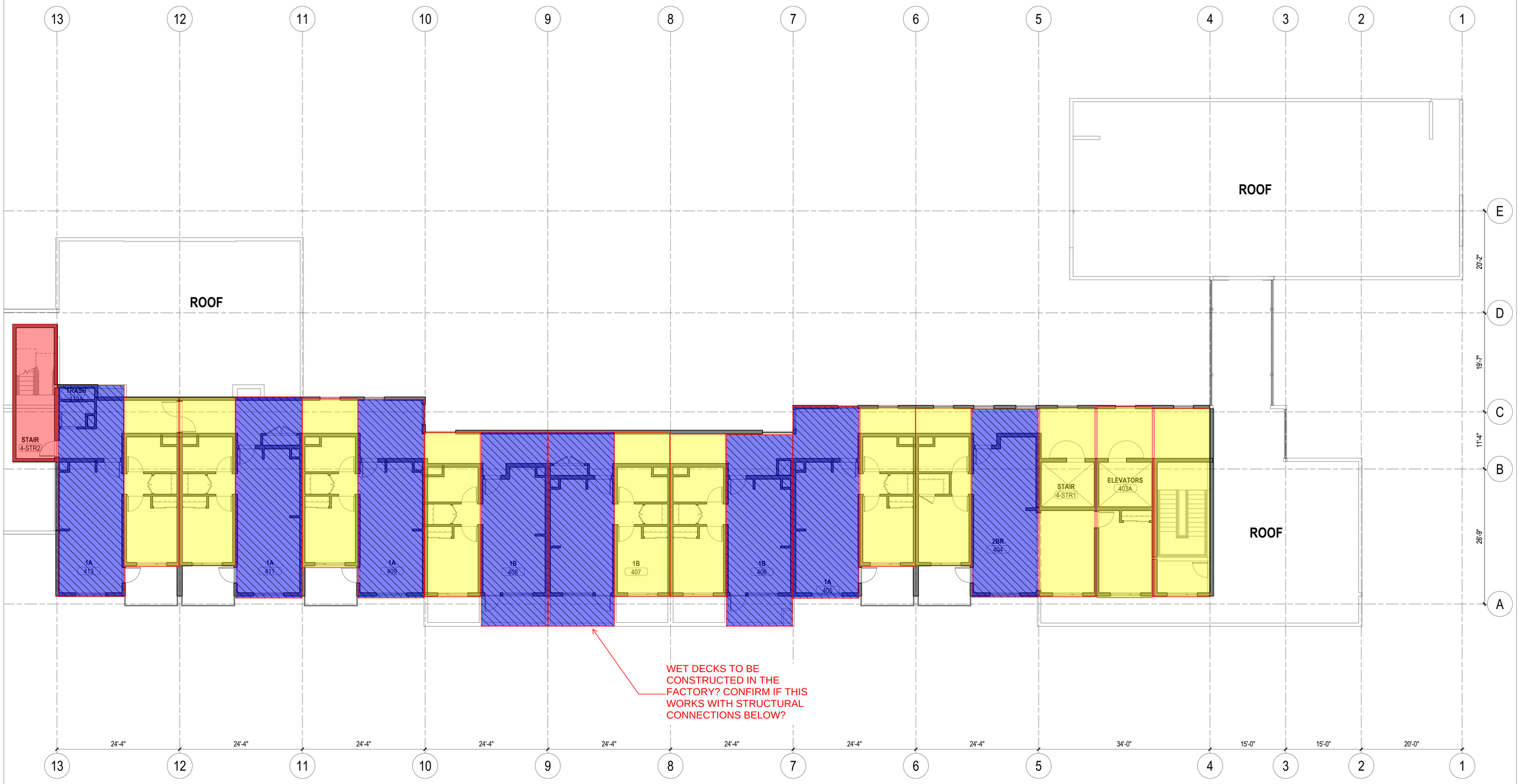
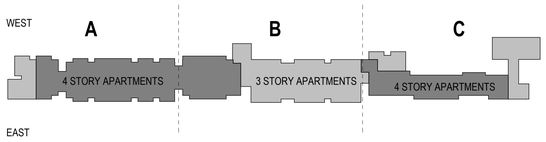
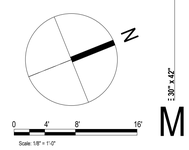


1 LEVEL 04 - FLOOR PLAN - C
1/8" = 1'-0"





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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

NO.	DATE	REVISION

DESIGN PARTNER
AT
PROJECT MANAGER
KB
PROJECT ARCHITECT
AP
PROJECT DESIGNER

PROJECT TEAM MEMBERS
EO
CHECK

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TITLE
LEVEL 04 - FLOOR PLAN - C

PROJECT NO.
1526000
DATE
07/24/18

SHEET NUMBER
MA2.04c
R4S ZONING COMPLIANCE

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30" X 42"

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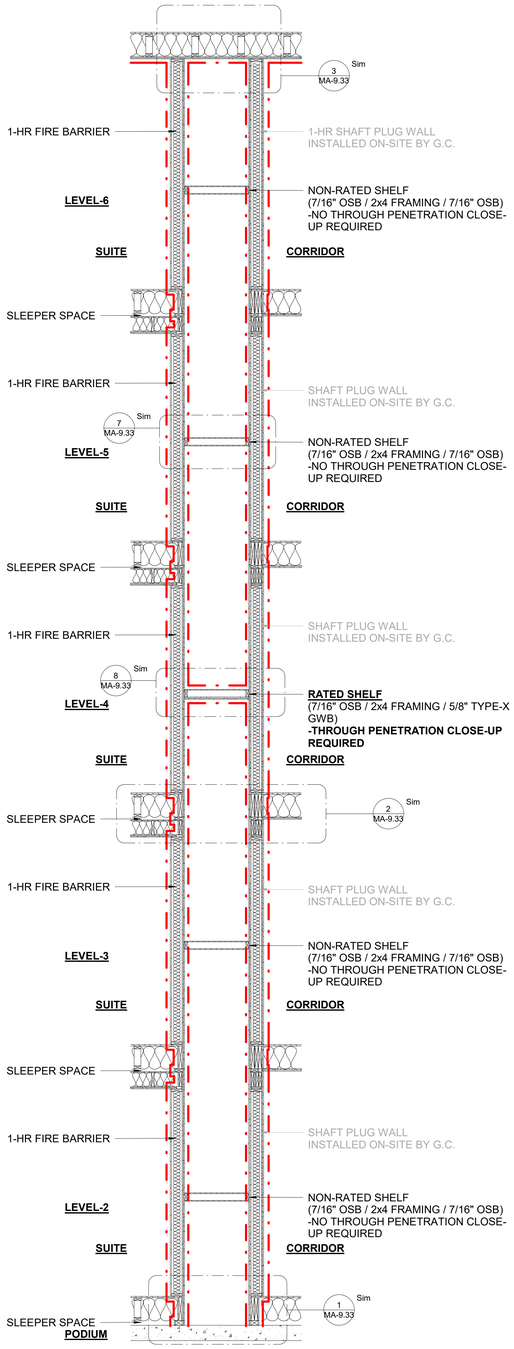
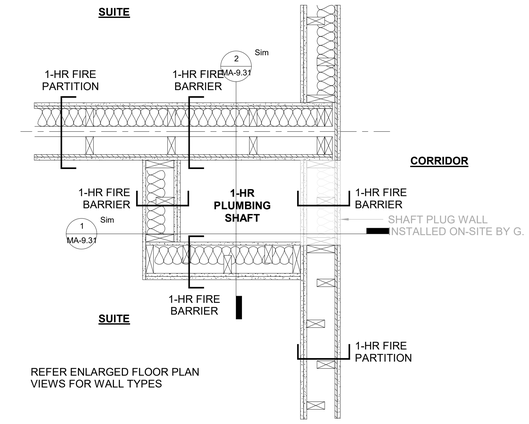
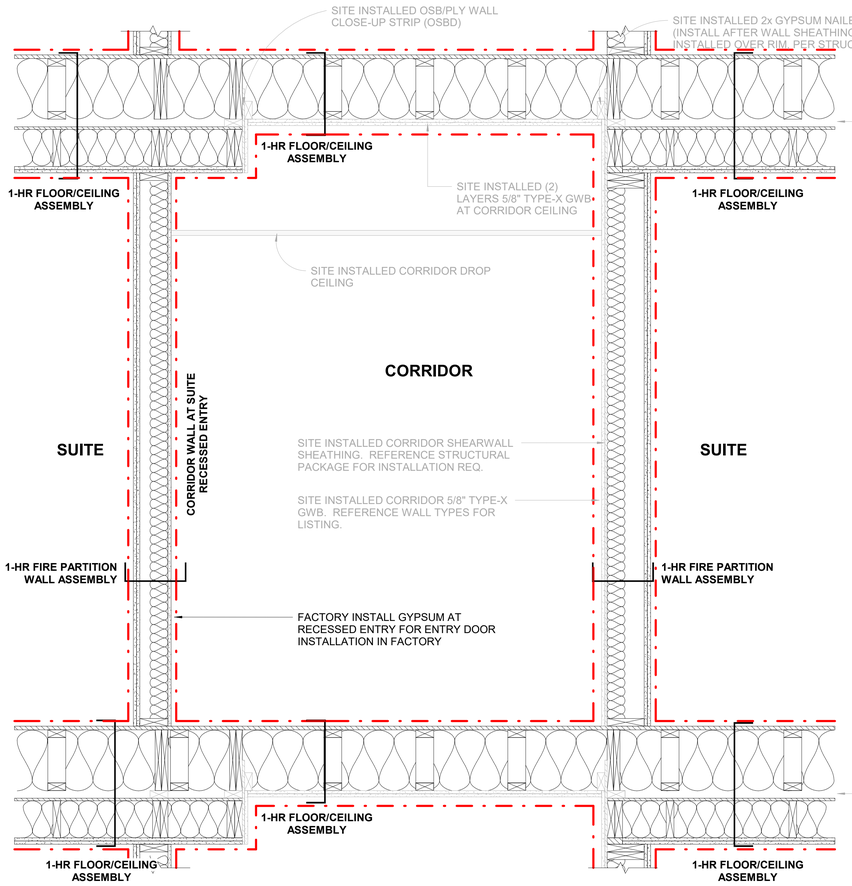


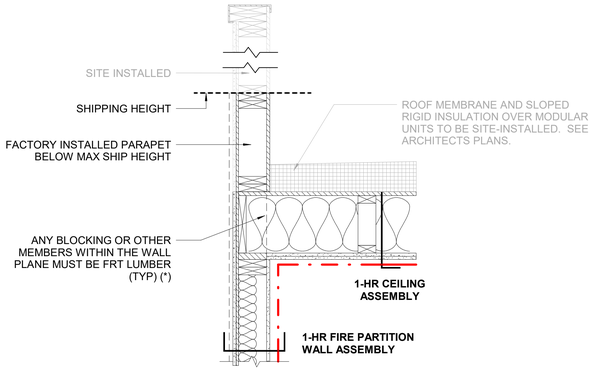
1 TYP. 1-HR PLUMBING SHAFT
3/8" = 1'-0"



3 TYP. PLUMBING SHAFT PLAN AT SUITE
1" = 1'-0"

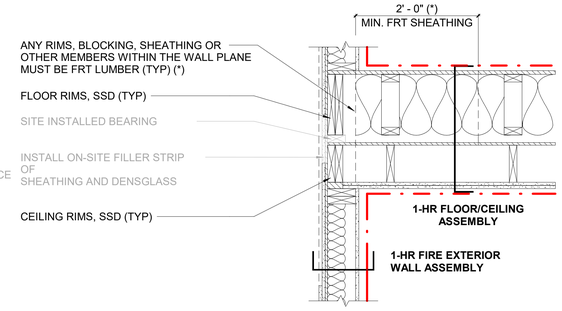


4 CORRIDOR AT SUITE ENTRY - TYPICAL LEVEL
1" = 1'-0"



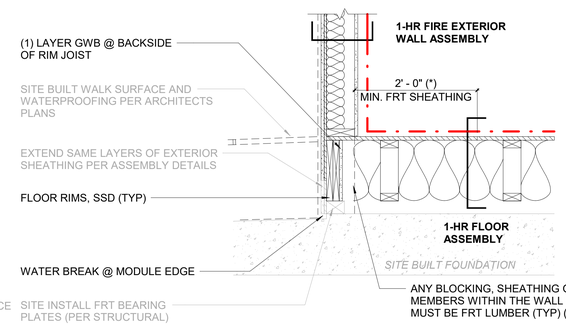
(*) = NOTE ONLY APPLIES IF EXTERIOR WALL IS REQUIRED FRT, SEE BUILDING PLANS AND WALL ASSEMBLIES

8 EXTERIOR WALL @ ROOF FLAT, 1-HR PLATFORM FRAME
1" = 1'-0"



(*) = NOTE ONLY APPLIES IF EXTERIOR WALL IS REQUIRED FRT, SEE BUILDING PLANS AND WALL ASSEMBLIES

6 EXTERIOR WALL @ FLR-CLG, 1-HR PLATFORM FRAME
1" = 1'-0"



(*) = NOTE ONLY APPLIES IF EXTERIOR WALL IS REQUIRED FRT, SEE BUILDING PLANS AND WALL ASSEMBLIES

5 EXTERIOR WALL @ FOUNDATION, 1-HR PLATFORM FRAME
1" = 1'-0"

PrefabLogic

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TYPICAL DETAILS

#	ISSUE/REVISION	DATE

SHEET TITLE:
WALL SECTION DETAILS

Drawn By: Author
Date: Issue Date

SHEET NUMBER:

MOD-01

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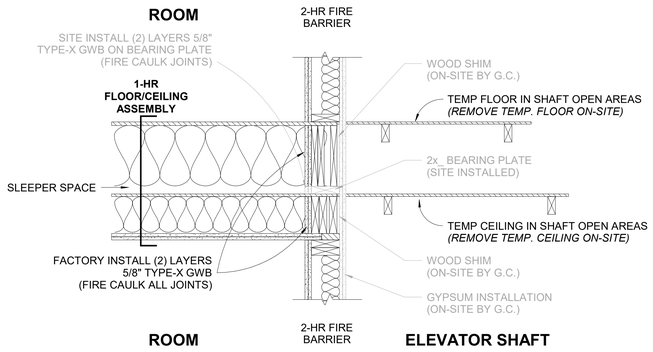
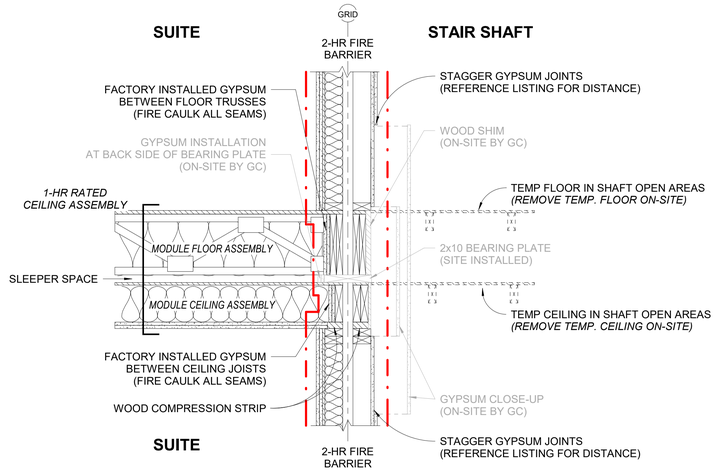
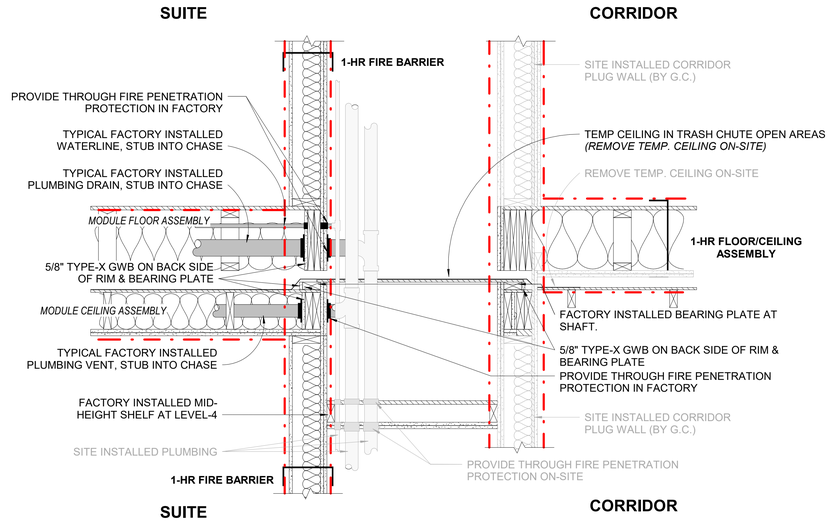


5 ELEVATOR SHAFT MODULE CONTINUITY AT ADJOINING ROOM AT TYPICAL LEVEL
1" = 1'-0"

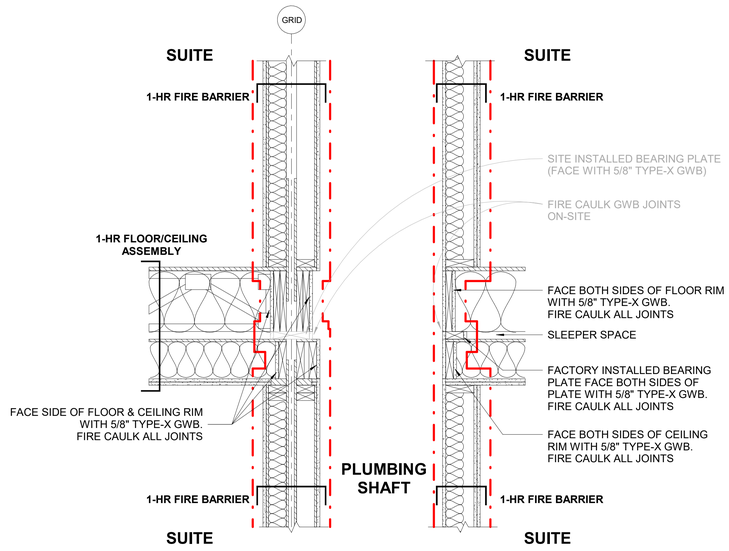


2 STAIR SHAFT MODULE CONTINUITY @ MATELINE (SUITE-STAIR @ TYPICAL LEVEL)
1" = 1'-0"

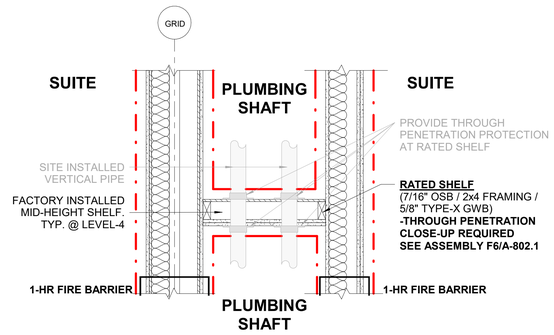


NOTE: REFER SHEET A-601.1 FOR THROUGH PENETRATION LISTINGS.

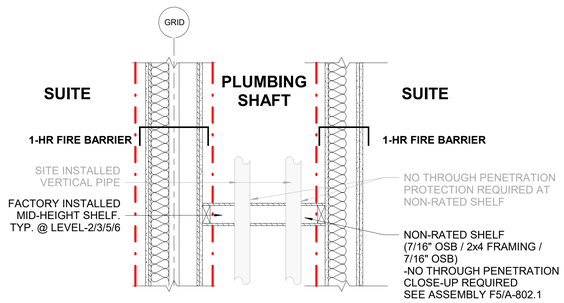
2 PLUMBING SHAFT AT TYPICAL LEVEL
1" = 1'-0"



5 PLUMBING SHAFT AT TYPICAL LEVEL (AT GRID)
1" = 1'-0"



8 RATED SHELF
1" = 1'-0"



7 NON-RATED SHELF
1" = 1'-0"

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TYPICAL DETAILS

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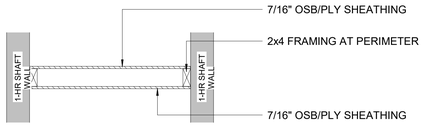
SHEET TITLE:
WALL SECTION DETAILS

Drawn By: Author
Date: Issue Date

SHEET NUMBER:

MOD-02

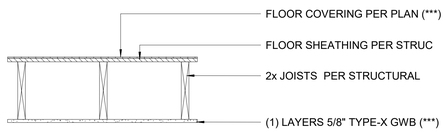
F5 TYP. MID-HEIGHT SHELF (NON-RATED)



FIRE: N/A

SOUND: N/A

F4 TYP. MID-HEIGHT STAIR LANDING



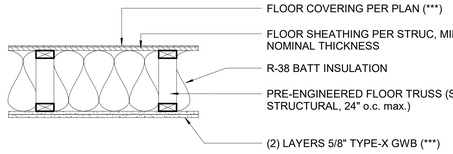
FIRE: N/A

SOUND: N/A

NOTES

(***) ITEM INSTALLED ON-SITE BY G.C.

F3 TYP. CORRIDOR FLOOR-CEILING ASSEMBLY



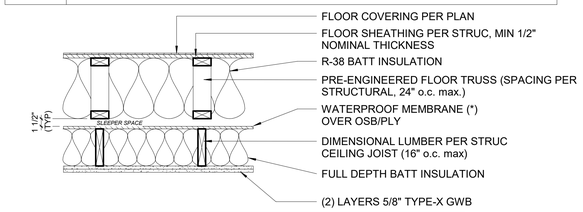
FIRE: 1-HR PER 2016 CBC TABLE 721.1(3) ITEM 21-1.1

SOUND: N/A

NOTES

(***) ITEM INSTALLED ON-SITE BY G.C.

F2 TYP. FLOOR-CEILING ASSEMBLY



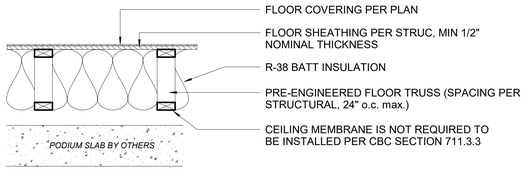
FIRE: 1-HR PER 2016 CBC TABLE 722.6.2 (1), 722.6.2(2)

SOUND: 55 NNIC PER I&R TEST (05.25.12-NNIC/FC: 2E-1H)

NOTES

(*) WATERPROOF MEMBRANE (EPDM) FOR MODULE PROTECTION.
LEAVING MEMBRANE IN PLACE PER LOCAL AHJ APPROVAL.

F1 TYP. FLOOR ASSEMBLY @ PODIUM

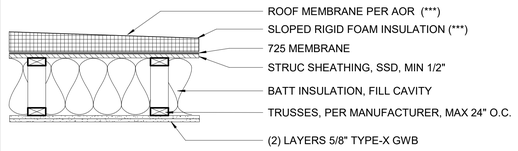


FIRE: 1-HR PER 2016 CBC TABLE 721.1(3) ITEM 21-1.1

SOUND: N/A

NOTES

R1 TYP. ROOF ASSEMBLY



FIRE: 1-HR PER 2013 CBC TABLE 720.1(3) ITEM 21-1.1

SOUND: N/A

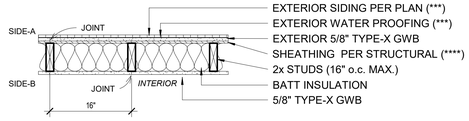
NOTES

1. OSB/PLY SHEATHING TO BE FASTENED WITH GLUE AND MIN 8d NAILS

2. CEILING CONSTRUCTION: BASE LAYER: 5/8" TYPE-X GWB INSTALLED AT RIGHT ANGLES TO FRAMNG W/ 1 1/4" TYPE-S OR TYPE-W DRYWALL SCREWS 24" O.C.
FACE LAYER: 5/8" TYPE-X GWB INSTALLED AT RIGHT ANGLES TO FRAMNG THRU BASE LAYER W/ 1 7/8" TYPE-S OR TYPE-W DRYWALL SCREWS 12" O.C. AT JOINTS AND IMTERMEDIATE FRAMING. FACE LAYER TYPE G DRYWALL SCREWS PLACED 2" BACK ON EITHER SIDE OF FACE LAYER END JOINTS, 12" O.C.

(***) ITEM INSTALLED ON-SITE BY G.C.

A1.3 TYP. 1-HR RATED EXTERIOR WALL



FIRE: 1-HR PER WP 3605

SOUND: 30-34 STC PER WP 3605

TYPE	A1.3A	A1.3B	A1.3C	A1.3D	A1.3E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

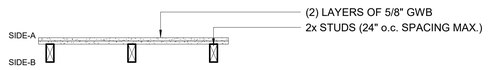
NOTES

(***) INSTALLED ON-SITE BY G.C.
(****) IN MODULES ADJOINING THE 3-HR FIRE WALL REPLACE SHEATHING WITH 1/2" DENSGLASS

FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	16"
FASTENER:	INT: #7 (2" LONG, 0.151" SHANK, 0.285" min. HEAD) EXT: #8 (2 1/2" LONG) EDGE: 7" O.C. FIELD: 7" O.C.
MID-HEIGHT BLOCKING:	NOT REQUIRED

F0.2 TYP. INTERIOR WALL *non-loadbearing*



FIRE: NON-RATED

SOUND: N/A

TYPE	F0.2A	F0.2B	F0.2C	F0.2D	F0.2E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

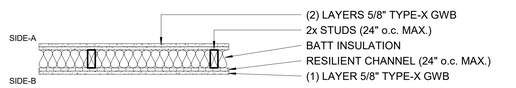
NOTES

.

FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	N/A
FASTENER:	#7 (2" LONG, 0.151" SHANK, 0.285" min. HEAD) EDGE: 6" O.C. FIELD: 12" O.C.
MID-HEIGHT BRACING:	NOT REQUIRED

E1.2 TYP. 1-HR RATED PARTITION



FIRE: 1-HR PER WP 3243

SOUND: 50-54 STC PER WP 3243

TYPE	E1.2A	E1.2B	E1.2C	E1.2D	E1.2E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

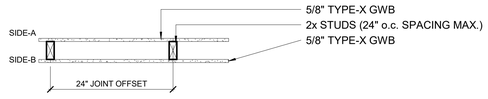
NOTES

.

FACTORY INSTALLATION

GYPSUM ORIENTATION:	SIDE-A: HORIZONTAL OR PARALLEL SIDE-B: RIGHT ANGLES TO RESILIENT CHANNEL
JOINT OFFSET:	VERTICAL JOINTS STAGGERED 24" ON OPPOSITE SIDES
MID-HEIGHT BRACING:	NOT REQUIRED

E1.1 TYP. RATED WALL *non-load bearing*



FIRE: 1-HR PER WP 3510

SOUND: 35-39 STC PER WP 3510

TYPE	E1.1A	E1.1B	E1.1C	E1.1D	E1.1E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

NOTES

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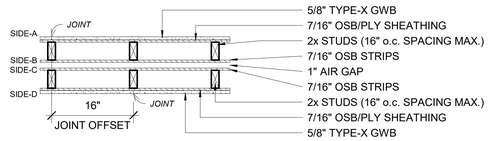
FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	24" (OPPOSITE SIDES)
FASTENER:	#7 (2" LONG, 0.151" SHANK, 0.285" min. HEAD) EDGE: 7" O.C. FIELD: 7" O.C.
MID-HEIGHT BLOCKING:	NOT REQUIRED

D1.2 TYP. RATED MATEWALL (IN-UNIT)



FIRE: 1-HR PER WP 33701-HR PER WP 3370

SOUND: N/A

TYPE	D1.2A	D1.2B	D1.2C	D1.2D	D1.2E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

NOTES

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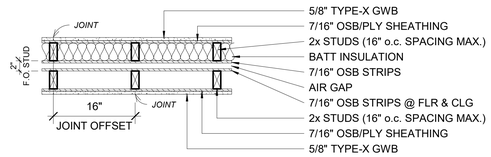
FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	16" (OPPOSITE SIDES)
FASTENER:	#8 (2 1/2" LONG) EDGE: 7" O.C. FIELD: 7" O.C.
MID-HEIGHT BLOCKING:	REQUIRED

D1.1 TYP. 1-HR RATED MATEWALL (UNIT SEPARATION)



FIRE: 1-HR PER WP 3370

SOUND: 53 STC PER 1.2.4.1.5.2 CALIFORNIA OFFICE OF NOISE CONTROL

TYPE	D1.1A	D1.1B	D1.1C	D1.1D	D1.1E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

NOTES

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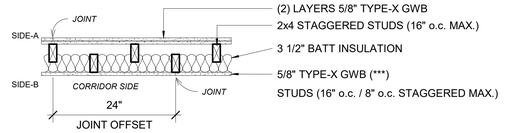
FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	16" (OPPOSITE SIDES)
FASTENER:	#8 (2 1/2" LONG, 0.151" SHANK, 0.285" min. HEAD) EDGE: 7" O.C. FIELD: 7" O.C.
MID-HEIGHT BLOCKING:	REQUIRED

C1.3 TYP. RATED CORRIDOR WALL



FIRE: 1-HR PER WP 3380

SOUND: 53 STC PER 1.2.3.5.4.3 CALIFORNIA OFFICE OF NOISE CONTROL

TYPE	C1.3A	C1.3B	C1.3C	C1.3D	C1.3E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

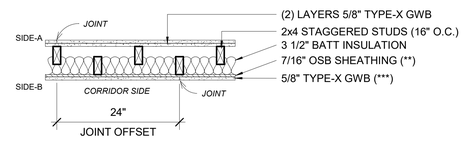
NOTES

(***) SITE INSTALLED BY G.C. IN CORRIDOR

FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	24" (OPPOSITE SIDES)
FASTENER:	SINGLE #7 (2" LONG, 0.151" SHANK, 0.285" min. HEAD) DOUBLE #8 (2 1/2" LONG) EDGE: 7" O.C. FIELD: 7" O.C.
MID-HEIGHT BLOCKING:	REQUIRED

C1.1 TYP. RATED CORRIDOR WALL (SHEAR)



FIRE: 1-HR PER WP 3380

SOUND: 53 STC PER 1.2.3.5.4.3 CALIFORNIA OFFICE OF NOISE CONTROL

TYPE	C1.1A	C1.1B	C1.1C	C1.1D	C1.1E	
PLATE SIZE	2x4	2x6	2x8	2x10	2x12	
INSULATION						

NOTES

(**) SITE INSTALLED BY G.C. AT ACCESS LOCATIONS
(***) SITE INSTALLED BY G.C.

FACTORY INSTALLATION

GYPSUM ORIENTATION:	HORIZONTAL or VERTICAL
JOINT OFFSET:	24" (OPPOSITE SIDES)
FASTENER:	#8 (2 1/2" LONG, 0.151" SHANK, 0.285" min. HEAD) EDGE: 7" O.C. FIELD: 7" O.C.
MID-HEIGHT BLOCKING:	REQUIRED

PrefabLogic

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STAMP

NOTE: ALL DETAILS ON "MOD" SHEETS ARE TYPICAL DETAILS FROM MODULAR CONSULTANT TO HELP DESCRIBE SCOPE OF MODULAR VS. SCOPE OF FIELD BUILT ONLY. SEE STRUCTURAL DRAWINGS FOR ACTUAL FRAMING SIZES, ETC.

TYPICAL DETAILS

#	ISSUE/REVISION	DATE

SHEET TITLE:
TYPICAL ASSEMBLY DETAILS

Drawn By: EDL
Date: Issue Date

SHEET NUMBER:
MOD-03

LEGEND

ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNIT PER HOUR
C	COMMON
CAP	CAPACITY
CC	COOLING COIL
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CLG	CEILING, COOLING
CO	CLEANOUT
COMB	COMBUSTION
CONT	CONTINUE, CONTROL
CONTR	CONTRACTOR
COP	COEFFICIENT OF PERFORMANCE
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
D	DIAMETER
DB	DRY BULB, DECIBEL
DEG	DEGREE
DIM	DIMENSION
DISCH	DISCHARGE
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE, ENGINE GENERATOR
ELEC	ELECTRIC
EQUIV	EQUIVALENT
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
EXT	EXTERIOR, EXTERNAL
F	FAHRENHEIT
FD	FIRE DAMPER
FCU	FAN COIL UNIT
FLR	FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE/SMOKE DAMPER
G	GAS
GRD	GRILLES, REGISTERS, AND DIFFUSERS
GWB	GYPSUM WALLBOARD
HORIZ	HORIZONTAL
HP	HORSEPOWER, HEAT PUMP
HRU	HEAT RECOVERY UNIT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVU	HEATING AND VENTILATION UNIT
HWR	HIGH WALL RETURN, HOT WATER RETURN
HWS	HIGH WALL SUPPLY, HOT WATER SUPPLY
HX	HEAT EXCHANGER
ID	INDIRECT DRAIN, INSIDE DIAMETER
IN	INCH
KW	KILOWATT
L	LONG, LENGTH
LB	POUND
LWR	LOW WALL RETURN
LWS	LOW WALL SUPPLY
MBH	THOUSAND BTU PER HOUR
MECH	MECHANICAL
MCA	MINIMUM CIRCUIT AMPACITY
MOCP	MAXIMUM OVER CURRENT PROTECTION
MTD	MOUNTED
OSA	OUTDOOR AIR
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIMENSION OR DIAMETER
OPNG	OPENING
P	PUMP
PD	PRESSURE DROP
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
REF	REFERENCE
RF	RELIEF FAN
RG	RETURN GRILLE
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SCH	SCHEDULE
SF	SUPPLY FAN, SQUARE FOOT
SENS	SENSIBLE
SG	SUPPLY GRILLE
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SO	SCREENED OPENING
SP	STATIC PRESSURE
SS	STAINLESS STEEL, SANITARY SEWER
SQ	SQUARE
TG	TRANSFER GRILLE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VENT
VENT	VENTILATION, VENTILATOR
VTR	VENT THRU ROOF
W	WASTE, WATT, WIDE
WB	WET BULB (TEMPERATURE)

EQUIPMENT

EF-1 — TYPICAL EQUIPMENT DESIGNATION (EXHAUST FAN SHOWN)

DSD — DUCT SMOKE DETECTOR

T — ROOM THERMOSTAT OR TEMPERATURE TRANSMITTER

H — ROOM HUMIDISTAT OR HUMIDITY TRANSMITTER

CO — CARBON MONOXIDE SENSOR

SD — SMOKE DETECTOR

TERMINALS

CD-12x12 400 OR CD-1 400 — DIFFUSER/GRILLE TYPE, AND NUMBER OR SIZE; DESIGN CFM (WHERE APPLICABLE) CEILING DIFFUSER (FLOW ARROWS SHOWN FOR NON SYMMETRICAL AIRFLOW)

CEILING RETURN/EXHAUST GRILLE

LINEAR DIFFUSER, CEILING OR WALL MOUNTED (FLOW ARROWS SHOWN FOR NON SYMMETRICAL AIRFLOW)

WALL SUPPLY GRILLE (SG)

WALL RETURN/EXHAUST GRILLE (RG, EG)

50 — TRANSFER GRILLE (TG), DUCT CONNECTED, WALL MOUNTED W/ OPTIONAL CFM SHOWN

TRANSFER GRILLE, CEILING MOUNTED WITH FULL-SIZED LINED DUCT CONNECTION

GENERAL

ARCHITECTURAL BACKGROUND (THIN LINE)

NEW MECHANICAL WORK (HEAVY LINE)

MATCHLINE OR PROPERTY LINE

SECTION IDENTIFICATION (DETAIL SIMILAR)

A / M-3 M — INDICATES DIRECTION OF CUTTING PLANE; LETTER INDICATES SECTION (NO. INDICATES DETAIL); SHEET # WHERE SECTION IS DRAWN; SHEET # WHERE SECTION IS TAKEN

DUCTWORK

18x12 — DUCT (1ST FIGURE = SIDE SHOWN, 2ND FIGURE = SIDE NOT SHOWN)

UP DOWN — DUCT SECTION, POSITIVE PRESSURE

UP DOWN — DUCT SECTION, NEGATIVE PRESSURE

UP DOWN — ROUND DUCT SECTION

UP UP UP — DUCT PENETRATION THRU FLOOR OR ROOF

FSD FSD — FIRE/SMOKE DAMPER (-->| = HORIZ DUCT, -->|<-- = VERT DUCT), 2-HR RATED, UON

VOLUME DAMPER

FD FD — FIRE DAMPER (-->| = HORIZ DUCT, -->|<-- = VERT DUCT), 2-HR RATED, UON

90° ELBOW, R/D OR R/W=1.5

SQUARE CORNER ELBOW WITH TURNING VANES

90° TAKE-OFF OR TEE

90° CONICAL TAKE-OFF

45° LATERAL TAKE-OFF

TRANSITION OR REDUCER (FOT = FLAT ON TOP, FOB = FLAT ON BOTTOM)

WYE FITTING

90° RECTANGULAR TAKE-OFF WITH 45° TAPER

90° DIVERGING RECTANGULAR TEE, EITHER RADIUS OR TURNING VANES

FLEXIBLE DUCT

Ø — ROUND DUCT INDICATOR

GENERAL NOTES

GENERAL NOTES – MECHANICAL

1. REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY).

2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.

3. CODES: COMPLETE INSTALLATION OF THE MECHANICAL SYSTEM SHALL BE PER THE APPLICABLE OR BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL AHJ.

4. PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL DUCTWORK, DAMPERS, EQUIPMENT, PIPING, ETC.
   A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH STRUCTURAL.
   B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING, AND OTHER TRADES WORK.
   C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COMPLETE OPERATING MECHANICAL SYSTEM.
   D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.

5. MECHANICAL CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITHIN THE STRUCTURE.

6. ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.

7. RATED PENETRATION: DUCT PENETRATIONS THROUGH RATED ENCLOSURES SHALL BE FIRE/SMOKE DAMPERED PER THE LATEST EDITION OF THE UNDERWRITERS LABORATORIES(UL) FIRE RESISTANCE WITH HOURLY RATINGS FOR THROUGH-PENETRATION FIRE STOPS SYSTEM VOLUME #2, OR SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S UL LISTINGS (3M OR EQUIVALENT). DETERMINE REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO BID.

8. EXHAUST OUTLETS/DRYER VENTS: SOURCE-SPECIFIC FANS SHALL BE VENTED TO OUTDOORS WITH A MINIMUM 3' CLEARANCE BETWEEN VENT OUTLETS AND BUILDING OPENINGS, AND 10' MINIMUM BETWEEN VENT OUTLETS AND MECHANICAL AIR INTAKES.

9. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.

10. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.

11. MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.

12. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.

COORDINATION REQUIREMENTS

1. DUCTWORK: LOCATE AND COORDINATE THE EXACT LOCATION OF DUCTWORK WITH STRUCTURAL PLANS AND WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION OF ANY STRUCTURE OR EQUIPMENT. COORDINATE WITH FRAMING CONTRACTOR TO ASSURE JOIST SPACES LINE UP WHEN DUCTWORK MUST PASS THROUGH DIFFERENT JOIST SPACES.

2. ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.

3. APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.

HVAC NOTES

1. ATTACHMENTS: AIR DISTRIBUTION OUTLETS AND LOUVERS SHALL HAVE ALL REQUIRED ACCESSORIES AND ATTACHMENTS FOR A COMPLETE CONNECTION TO THE SPECIFIC TYPE OF STRUCTURE THAT THEY ARE BEING ATTACHED TO. THIS INCLUDES, BUT IS NOT LIMITED TO, EXTERIOR BRICKS, GWB WALLS, GWB CEILING, ETC.

2. FIRE RATINGS: RATED FLOOR/CEILING JOINT SPACES HAVING DUCTWORK INSIDE THEM SHALL BE FIRE/SMOKE PROTECTED TO MAINTAIN THE 1-HOUR FLOOR/CEILING RATING PER LOCAL JURISDICTIONS. EXHAUST DUCTWORK PENETRATING THE 1-HOUR ROOF/CEILING OR FLOOR/CEILING ASSEMBLY SHALL HAVE ACCESSIBLE CEILING FIRE DAMPERS. ALTERNATIVELY, THE EXHAUST DUCTWORK SHALL BE ROUTED INSIDE A RATED SHAFT TO PROTECT THE CEILING/ROOF RATING PER THE LOCAL JURISDICTIONS.

3. FIRESTOP: PIPE, DUCT, AND CONDUIT PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRE AND SMOKE STOPPED PER CODE.

4. DUCTWORK: DUCTWORK SHALL BE SMOOTH SHEET METAL (CLASS-1). DUCTWORK THROUGH FIRE RATED STRUCTURE AND FLOOR SHALL BE MIN. 26 GA. STEEL. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.

5. DUCTWORK AND PIPING OUTSIDE OF MECHANICAL ROOMS SHALL BE CONCEALED. COORDINATE WITH THE GENERAL CONTRACTOR TO FUR-OUT AS REQUIRED.

6. VOLUME DAMPERS: PROVIDE AN ACCESSIBLE MANUAL VOLUME DAMPER FOR EACH SUPPLY, RETURN, OSA, AND EXHAUST OPENING, LOCATED AS FAR UPSTREAM AS POSSIBLE FROM THE OPENING. PROVIDE A MANUAL VOLUME DAMPER FOR BRANCH MAINS SERVING MORE THAN ONE OPENING. VOLUME DAMPERS IN NON-ACCESSIBLE CEILINGS SHALL HAVE A CONTROL ARM EXTENDED TO AN ACCESSIBLE LOCATION. PROVIDE "YOUNG" REGULATOR OR EQUAL. EXACT LOCATION OF CONTROL DEVICES VISIBLE IN FINISHED SPACES SHALL BE COORDINATED WITH THE ARCHITECT. NOTE: DUCTWORK/DIFFUSERS WITHIN RESIDENTIAL UNITS SHALL BE PROVIDED WITH OBD'S IN LIEU OF BALANCING DAMPERS OUTLINED ABOVE.

7. SEISMIC: PROVIDE SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK PER SMACNA AND LOCAL REGULATIONS.

8. FILTER CLEARANCE: PROVIDE ADEQUATE CLEARANCE FOR CHANGING AIR FILTERS

SHEET METAL NOTES

1. REFERENCE: SMACNA HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, CURRENT EDITION.

2. CLEARANCE: COORDINATE DUCTWORK WITH MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.

3. ROUND ELBOWS AND OFFSETS: FULL RADIUS (R/D = 1.5), 5-PIECE SEGMENTED OR STAMPED. REFER TO SMACNA HVACDCS FIG 2-7, 3-3. DO NOT USE ANGLED OFFSET (TYPE 1). MITERED OFFSET (TYPE 2) MAY BE USED UP TO 30 DEGREE OFFSET ANGLE.

4. ROUND TEES AND LATERALS: CONICAL TEE PER SMACNA HVACDCS FIG 3-5; DO NOT USE STRAIGHT TEE; DO NOT USE CONICAL SADDLE TAP FOR EXPOSED DUCTWORK IN FINISHED SPACES. 90-DEGREE TEE WITH OVAL TO ROUND TAP, LATERAL, AND 45-DEGREE RECTANGULAR LEAD-IN PER SMACNA HVACDCS FIG 3-4.

5. RECTANGULAR ELBOWS AND OFFSETS: FULL RADIUS WHERE SPACE PERMITS, R/W = 1.5; OTHERWISE USE SQUARE CORNER ELBOW WITH TURNING VANES.

6. RECTANGULAR DIVIDED FLOW FITTINGS: USE GENERALLY, EXCEPT BRANCHES TO TERMINALS; SMACNA HVACDCS FIG 2-5, TYPES 1, 2, 4A, AND 4B. DO NOT USE TYPE 3.

7. TURNING VANES: H.E.P. MANUFACTURER OR APPROVED HIGH EFFICIENCY PROFILE AIRFOIL TYPE FOR RECTANGULAR SQUARE THROAT ELBOWS. ACOUSTICAL TYPE FOR RETURN AIR MITERED ELBOWS.

8. TAKEOFFS TO OPENINGS: CONICAL TYPE WITH VOLUME DAMPER FOR ROUND DUCT BRANCHES PER SMACNA HVACDCS FIG 2-6, MINIMUM INLET DIAMETER 2 INCHES LARGER THAN DUCT SIZE. 45 DEGREE ENTRY FITTING FOR RECTANGULAR DUCT BRANCHES PER SMACNA HVACDCS FIG 2-6.

9. FLEXIBLE CONNECTIONS: PROVIDE AT EACH DUCT CONNECTION TO FANS, PACKAGED HVAC EQUIPMENT, EXTERNALLY ISOLATED AIR HANDLING UNITS, FAN COIL UNITS, AND SIMILAR EQUIPMENT. EXCEPTION: EQUIPMENT IN CORRIDOR CEILING SPACES WHERE FIRE RATING IS REQUIRED.

INSULATION/LINING NOTES

1. ENERGY CODE: AS A MINIMUM, COMPLY WITH THICKNESSES AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.

2. EXTENT OF INTERNAL DUCT LINING:
   A. GRILLE AND DIFFUSER BOXES AND BOOTS.
   B. TRANSFER DUCTS.

3. EXTENT OF EXTERNAL DUCT INSULATION:
   A. SUPPLY AND RETURN AIR IN UNCONDITIONED SPACES, MECHANICAL ROOMS, ELECTRICAL ROOMS, AND EQUIPMENT ROOMS NOT SPECIFIED TO BE INTERNALLY LINED.
   B. SUPPLY AIR ABOVE CEILINGS OR EXPOSED NOT SPECIFIED TO BE INTERNALLY LINED.
   C. OUTDOOR AIR INTAKE.

4. MISCELLANEOUS DUCT FITTINGS (CONICAL TAKEOFFS, ETC.): WRAP WITH INSULATION FOR CONDENSATION CONTROL.

PIPING NOTES

1. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.

2. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.

3. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.

4. DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.

FIRE ALARM NOTES

FIRE ALARM CONTRACTOR SHALL PROVIDE ACTUATION DEVICE FOR COMBINATION FIRE SMOKE DAMPERS PER SECTION 717.3.3.1 OF THE BUILDING CODE:

1. WHERE A SMOKE DAMPER IS INSTALLED ABOVE SMOKE BARRIER A SPOT-TYPE DETECTOR LISTED FOR RELEASING SERVICE SHALL BE INSTALLED ON EITHER SIDE OF THE SMOKE BARRIER DOOR OPENING.

2. WHERE A COMBINATION FIRE SMOKE DAMPER IS INSTALLED WITHIN AN AIR TRANSFER OPENING IN A WALL, A SPOT-TYPE DETECTOR LISTED FOR RELEASING SERVICE SHALL BE INSTALLED WITHIN 5 FEET (1524 MM) HORIZONTALLY OF THE DAMPER.

3. WHERE A COMBINATION FIRE SMOKE DAMPER IS INSTALLED IN A CORRIDOR WALL OR CEILING, THE DAMPER SHALL BE PERMITTED TO BE CONTROLLED BY A SMOKE DETECTION SYSTEM INSTALLED IN THE CORRIDOR.

4. WHERE A TOTAL-COVERAGE SMOKE DETECTOR SYSTEM IS PROVIDED WITHIN AREAS SERVED BY A HEATING, VENTILATION AND AIR-CONDITIONING (HVAC) SYSTEM, COMBINATION FIRE SMOKE DAMPERS SHALL BE PERMITTED TO BE CONTROLLED BY THE SMOKE DETECTION SYSTEM.

5. UNLESS SPECIFICALLY SHOWN ON THE MECHANICAL PLANS, DUCT SMOKE DETECTORS SHALL NOT BE THE METHOD FOR ACTUATION OF FIRE SMOKE DAMPERS.

DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

PRE-CON MEETING

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS. THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL	2 HOURS
PLUMBING/PIPING	2 HOURS
ELECTRICAL	2 HOURS
GENERAL CONTRACTOR	ALL SESSIONS

APPLICABLE CODES

THESE DRAWINGS ARE BASED ON THE FOLLOWING CODES:

-2016 CALIFORNIA BUILDING CODE

-2016 CALIFORNIA MECHANICAL CODE

-2016 CALIFORNIA PLUMBING CODE

-2016 CALIFORNIA NON-RESIDENTIAL TITLE 24 ENERGY CODE

CALGREEN REQUIREMENTS

PROJECT SHALL COMPLY WITH THE CURRENT CALIFORNIA GREEN CODE REQUIREMENTS PER BELOW:

1. PER SECTION 4.504.1 & SECTION 5.504.3, COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY ENTER THE SYSTEM.

2. HEATING AND AIR CONDITIONING SYSTEMS HAVE BEEN SIZED ACCORDING TO SECTION 4.507.2

3. PER SECTION 5.504.1.3, TEMPORARY VENTILATION. THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30 PERCENT BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY.

4. PER SECTION 5.504.5.3 FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8. MERV 8 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY, AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL.

5. MINIMUM OUTSIDE AIR HAS BEEN PROVIDED FOR NON-RESIDENTIAL AREAS BASED ON TABLE 4-3 OF THE 2016 NON-RESIDENTIAL TITLE-24 COMPLIANCE MANUAL.

6. PER SECTION 702.1, HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS INCLUDING DUCTS AND EQUIPMENT BY A NATIONALLY OR REGIONALLY RECOGNIZED TRAINING OR CERTIFICATION PROGRAM.

VIBRATION AND ACOUSTICAL ISOLATION

THE FOLLOWING MEASURES SHALL BE TAKEN TO MINIMIZE VIBRATION AND NOISE TRANSMISSION FROM HVAC EQUIPMENT TO THE INTERIOR SPACES:

FAN COIL UNITS AND SUSPENDED SUPPLY OR EXHAUST FANS:

A) PROVIDE FLEX CONNECTOR BETWEEN UNIT AND ANY DUCTWORK.
B) SUSPEND UNITS WITH THREADED ROD AND SPRING ISOLATORS.

CONDENSERS/HEAT PUMPS AND FANS MOUNTED ON THE ROOF:
A) MOUNT ON SPRING ISOLATORS, MINIMUM 2" DEFLECTION.
B) PROVIDE FLEX CONNECTOR BETWEEN UNIT AND ANY DUCTWORK.

CONDENSERS/HEAT PUMPS MOUNTED IN THE GARAGE:
A) SUSPEND UNITS WITH THREADED ROD AND SPRING ISOLATORS.

DRAWING INDEX

DWG	DESCRIPTION	INCLUDED IN SET: 50% SD SET 08/15/2018	95% DD SET 10/15/2018
M0.00	LEGEND, INDEX, GENERAL NOTES	X	X
M0.01	SCHEDULE & CALCULATIONS		X
M2.01A	LEVEL 01 – FLOOR PLAN – A	X	X
M2.01B	LEVEL 01 – FLOOR PLAN – B	X	X
M2.01C	LEVEL 01 – FLOOR PLAN – C	X	X
M2.02A	LEVEL 02 – FLOOR PLAN – A	X	X
M2.02B	LEVEL 02 – FLOOR PLAN – B	X	X
M2.02C	LEVEL 02 – FLOOR PLAN – C	X	X
M2.03A	LEVEL 03 – FLOOR PLAN – A	X	X
M2.03B	LEVEL 03 – FLOOR PLAN – B	X	X
M2.03C	LEVEL 03 – FLOOR PLAN – C	X	X
M2.04A	LEVEL 04 – FLOOR PLAN – A	X	X
M2.04B	LEVEL 04 – FLOOR PLAN – B	X	X
M2.04C	LEVEL 04 – FLOOR PLAN – C	X	X
M2.05A	ROOF PLAN – A		X
M2.05B	ROOF PLAN – B		X
M2.05C	ROOF PLAN – C		X
M3.00	UNIT PLANS	X	X
M3.01	UNIT PLANS	X	X
M3.02	UNIT PLANS	X	X

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROUNER
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEGEND, INDEX, GENERAL NOTES

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M0.00

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VENTILATION CALCULATIONS

Ventilation Calculations (ASHRAE 62.1-2013)								Ventilation Calculations (ASHRAE 62.2-2013)		
Unit Type	Rp	Ra	#people	Area (sf)	Ez	OA required (CFM)	OA Provided (CFM)	# of Bedrooms	Area (sf)	Ventilation Requirements
1 BED	5	0.06	2	565	1	44	**45**	1	565	30
2 BED	5	0.06	3	890	1	68	**70**	2	890	45
3 BED	5	0.06	4	1170	1	90	**90**	3	1170	45

FAN SCHEDULE

EQUIP NO.	SERVICE	MOUNTING/ DISCHARGE	AIRFLOW, CFM	ESP. IN-WG	ELECTRICAL VOLTAGE	ELECTRICAL HP/W	NOISE (SONES)	OPERATION	WEIGHT (lb)	BASIS OF DESIGN (1)
EF-1	RESIDENTIAL UNIT RESTROOM	CEILING	80	0.10	120V/1P	5.8W	0.3	MANUAL	11.5	PANASONIC FV-05-11VKS1 (3)
EF-2	TRASH EXHAUST FAN	UTILITY	800	0.50	208V/1P	1/3	8.6	CONTINUOUS	194	GREENHECK USF-316 (4)
CSF-1	CORRIDOR SUPPLY FAN	UTILITY	2,050	0.50	208V/3P	1/2	7.3	CONTINUOUS	397	GREENHECK USF-324
CSF-2	CORRIDOR SUPPLY FAN	UTILITY	2,850	0.50	208V/3P	1/2	9.3	CONTINUOUS	395	GREENHECK USF-324
CSF-3	CORRIDOR SUPPLY FAN	UTILITY	2,475	0.50	208V/3P	1/2	8.2	CONTINUOUS	397	GREENHECK USF-324
TF-1	RESIDENTIAL ROOM	WALL	60	0.25	120V/1P	FHP	–	MANUAL	–	TJERLUND AS1

NOTES: (1) PROVIDE BACKDRAFT DAMPERS ON EXHAUST FANS.
(2) PROVIDE OPTIONAL SPEED CONTROLLER.
(3) PROVIDE MOTION SENSOR MODEL PANASONIC FV-MSVK1, AND HUMIDISTAT MODEL PANASONIC FSVK1.
(4) MULTIPLE FANS ARE IDENTIFIED WITH A LETTER SUFFIX (EF-1A, EF-1B, ETC.). THERE MAY BE GAPS IN THE SEQUENCE.

VERTICAL THROUGH-WALL HEAT PUMP SCHEDULE

EQUIP NO.	SERVICE	SUPPLY FAN AIRFLOW, CFM	SUPPLY FAN MIN. OSA, CFM	COOLING BTUH	COOLING EER	HEATING BTUH	HEATING HEATER, KW (208V)	ELECTRICAL VOLTAGE	ELECTRICAL MCA	ELECTRICAL MOCP	BASIS OF DESIGN
VTAC-1	1 BEDROOM UNIT	600	(3)	16,500	10	9,926	3	208V/1P	30	35	MAGIC-PAK 3MHP4-10-181FP-1 (1)(2)
VTAC-2	2 BEDROOM UNIT	800	(3)	22,800	10	12,302	5	208V/1P	41	45	MAGIC-PAK 5MHP4-10-241FP-1 (1)(2)
VTAC-3	3 BEDROOM UNIT	1000	(3)	27,600	10	12,302	5	208V/1P	43	50	MAGIC-PAK 5MHP4-10-301FP-1 (1)(2)

NOTES: (1) EXTERIOR GRILLE SHALL BE THE ARCHITECTURAL GRILLE. COORDINATE STYLE AND COLOR WITH ARCHITECT.
(2) REFRIGERANT SHALL BE R-410A.
(3) REFER TO THE "VENTILATION CALCULATIONS" ON THIS SHEET FOR THE OSA TO EACH UNIT TYPE.

THROUGH-WALL HEAT PUMP SCHEDULE

EQUIP NO.	SERVICE	SUPPLY FAN AIRFLOW, CFM	SUPPLY FAN MIN. OSA, CFM	COOLING BTUH	COOLING EER	HEATING BTUH	HEATING COP	ELECTRICAL VOLTAGE	ELECTRICAL MCA	ELECTRICAL MOCP	BASIS OF DESIGN
TWHP-1	1 BEDROOM UNIT	330	(6)	9,000	11.5	8,300	3.4	208V/1P	5.1	15	AMANA PTH093G15A (1)(2)(3)(4)(5)

NOTES: (1) EXTERIOR GRILLE SHALL BE THE ARCHITECTURAL GRILLE. COORDINATE STYLE AND COLOR WITH ARCHITECT.
(2) PROVIDE UNIT SUPPORT SUB-BASE KIT.
(3) OUTSIDE AIR INTAKE TO BE OPEN TO EXTERIOR ARCHITECTURAL GRILLE FOR VENTILATION .
(4) AMANA PTAC IS USED FOR CONTINUOUSLY AIR MAKE UP VENTILATION REQUIREMENTS.
(5) PROVIDE REMOTE WALL MOUNTED THERMOSTAT.
(6) REFER TO THE "VENTILATION CALCULATIONS" ON THIS SHEET FOR THE OSA TO EACH UNIT TYPE.

DIFFUSER SCHEDULE

CALLOUT	DESCRIPTION	AIRFLOW RANGE, CFM	FACE SIZE, IN	BASIS OF DESIGN (2)
EG-1	EXHAUST GRILL	0-500	12x12	TITUS 350RL (1)
EG-2	EXHAUST GRILL	0-1000	24x24	TITUS 350ZRL
RG-1	RETURN GRILLE	0-1000	18x12	TITUS 350ZFLF
SG-1	SUPPLY GRILLE	0-400	10x6	TITUS 300RL
SG-2	SUPPLY GRILLE	0-800	14x14	TITUS 300RL (1)

NOTES: (1) PROVIDE OBD'S FOR ALL IN WALL GRILLES AT CORRIDOR SHAFTS.
(2) PROVIDE SPECIFIED EQUIPMENT OR EQUAL.

PIPE INSULATION SCHEDULE

SERVICE	MATERIAL	THICKNESS	FIELD APPLIED JACKET	VAPOR RETARDER REQUIRED	FINISH	NOTES
REFRIGERANT SUCTION, LIQUID AND HOT-GAS PIPING (WHERE REQUIRED). PIPE SIZES LESS THAN 1⅛	FLEXIBLE ELASTOMERIC	1"	NONE	NO	NONE	COPPER PIPING. OPERATING TEMPERATURE 40 TO 60 DEG F.
REFRIGERANT SUCTION, LIQUID AND HOT-GAS PIPING (WHERE REQUIRED). PIPE SIZES 1⅛ AND LARGER	FLEXIBLE ELASTOMERIC	1"	NONE	NO	NONE	COPPER PIPING. OPERATING TEMPERATURE 40 TO 60 DEG F.
ABOVE GROUND INSULATION OUTSIDE THE BUILDING	FLEXIBLE ELASTOMERIC	1/2"	NONE	YES	TWO COATS OF MANUFACTURER'S RECOMMENDED UV INHIBITOR	COPPER PIPING. OPERATING TEMPERATURE 40 TO 60 DEG F.

DUCT INSULATION SCHEDULE

SERVICE	MATERIAL	R-VALUE (MIN. INSTALLED)	VAPOR RETARDER REQUIRED	NOTES
INDOOR ROUND & RECTANGULAR, SUPPLY AIR DUCTS, CONCEALED	MINERAL-FIBER BLANKET	4.2	YES	
INDOOR ROUND & RECTANGULAR, OUTSIDE AIR DUCTS, CONCEALED	MINERAL-FIBER BLANKET	4.2	YES	
INDOOR ROUND & RECTANGULAR, SUPPLY AIR DUCTS, EXPOSED	NONE REQUIRED, UNLESS NOTED OTHERWISE	N/A	NO	
INDOOR ROUND & RECTANGULAR, RETURN AIR DUCTS, EXPOSED	NONE REQUIRED, UNLESS NOTED OTHERWISE	N/A	NO	

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KEYMAP

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STATE OF CALIFORNIA

TITLE
SCHEDULES & CALCULATIONS

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
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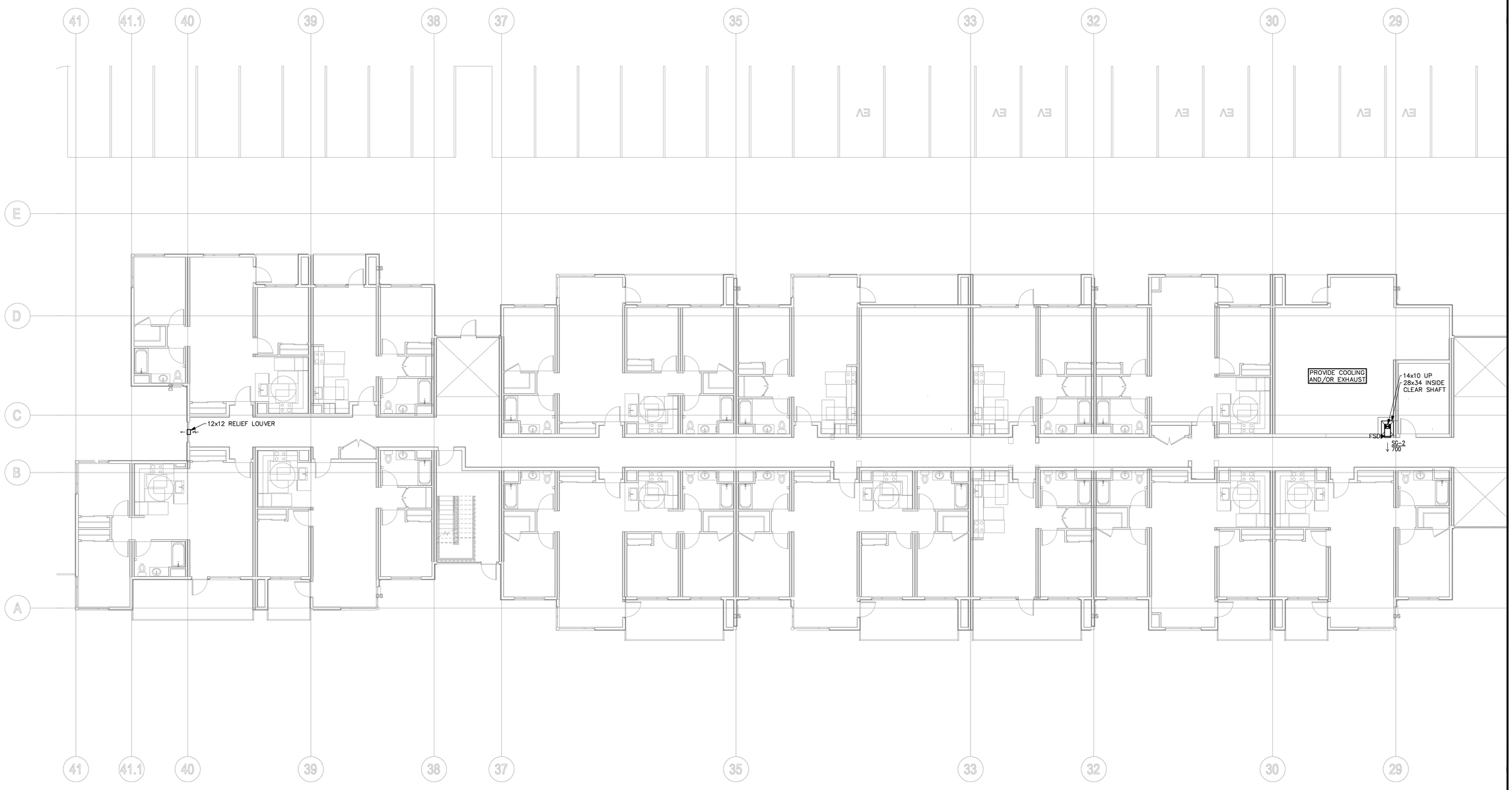

LEVEL 01 – FLOOR PLAN – A

SCALE: 1/8" = 1'-0"

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TITLE
LEVEL 01 - FLOOR PLAN - A

PROJECT NO.

DATE
10/15/2018

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LEVEL 01 – FLOOR PLAN – B

SCALE: 1/8" = 1'-0"

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TITLE
LEVEL 01 - FLOOR PLAN - B

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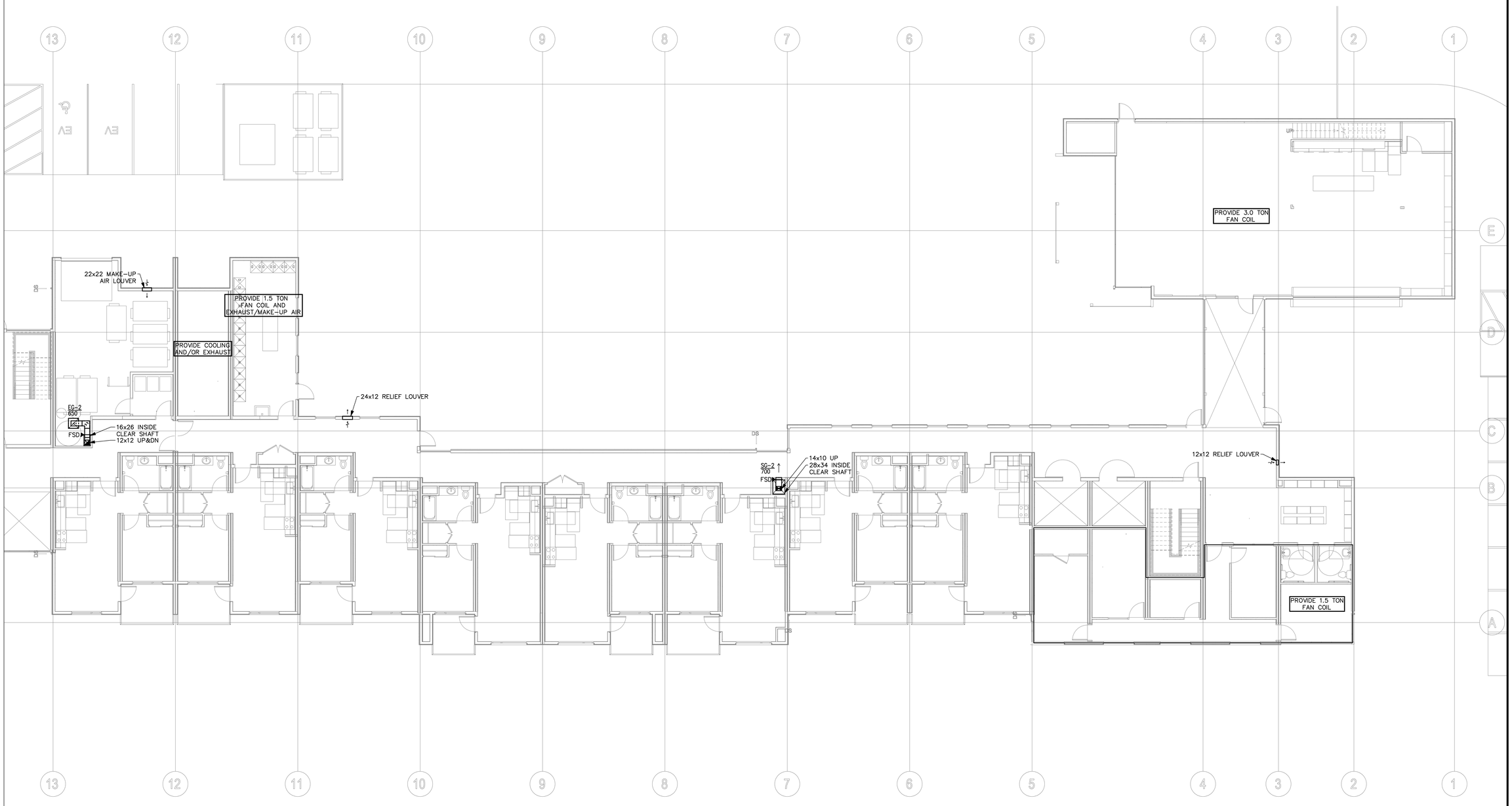

LEVEL 01 – FLOOR PLAN – C

SCALE: 1/8" = 1'-0"

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STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - C

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.01C

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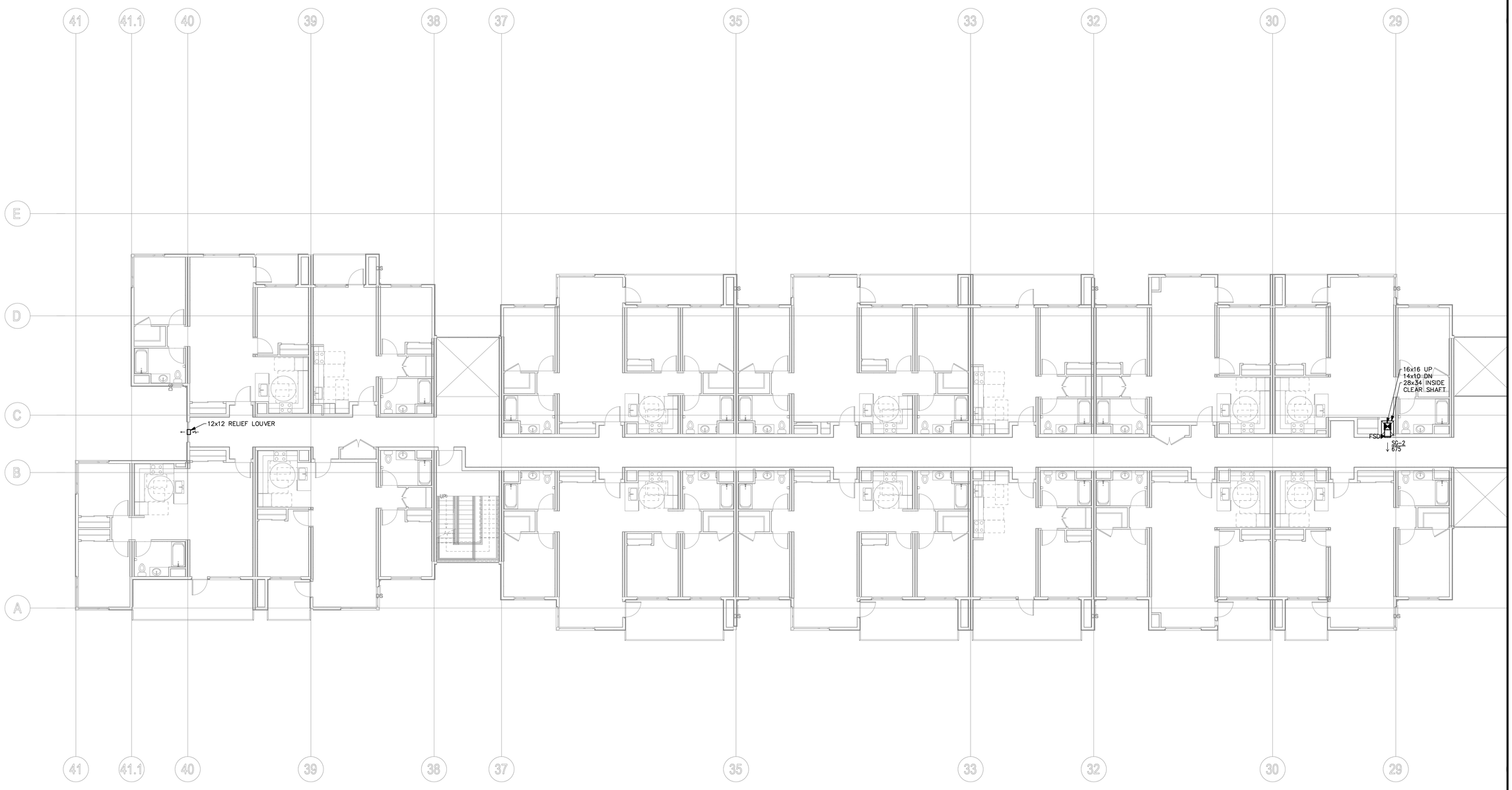

LEVEL 02 – FLOOR PLAN – A

SCALE: 1/8" = 1'-0"

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21705 Highway 99
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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKMAN
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 02 - FLOOR PLAN - A

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.02A

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LEVEL 02 – FLOOR PLAN – B

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKHART
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 02 - FLOOR PLAN - B

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.02B

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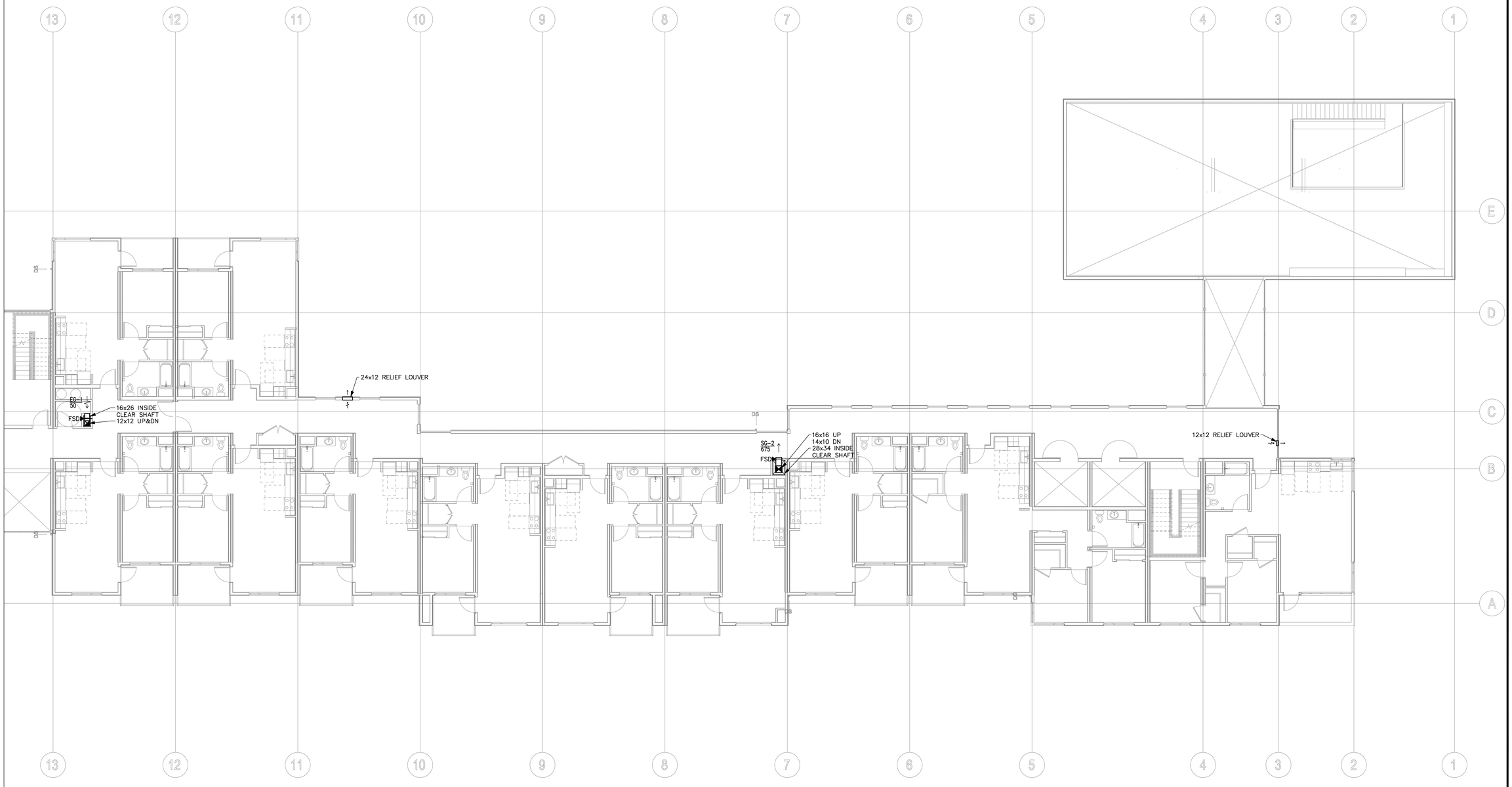

LEVEL 02 – FLOOR PLAN – C

SCALE: 1/8" = 1'-0"

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 02 - FLOOR PLAN - C

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.02C

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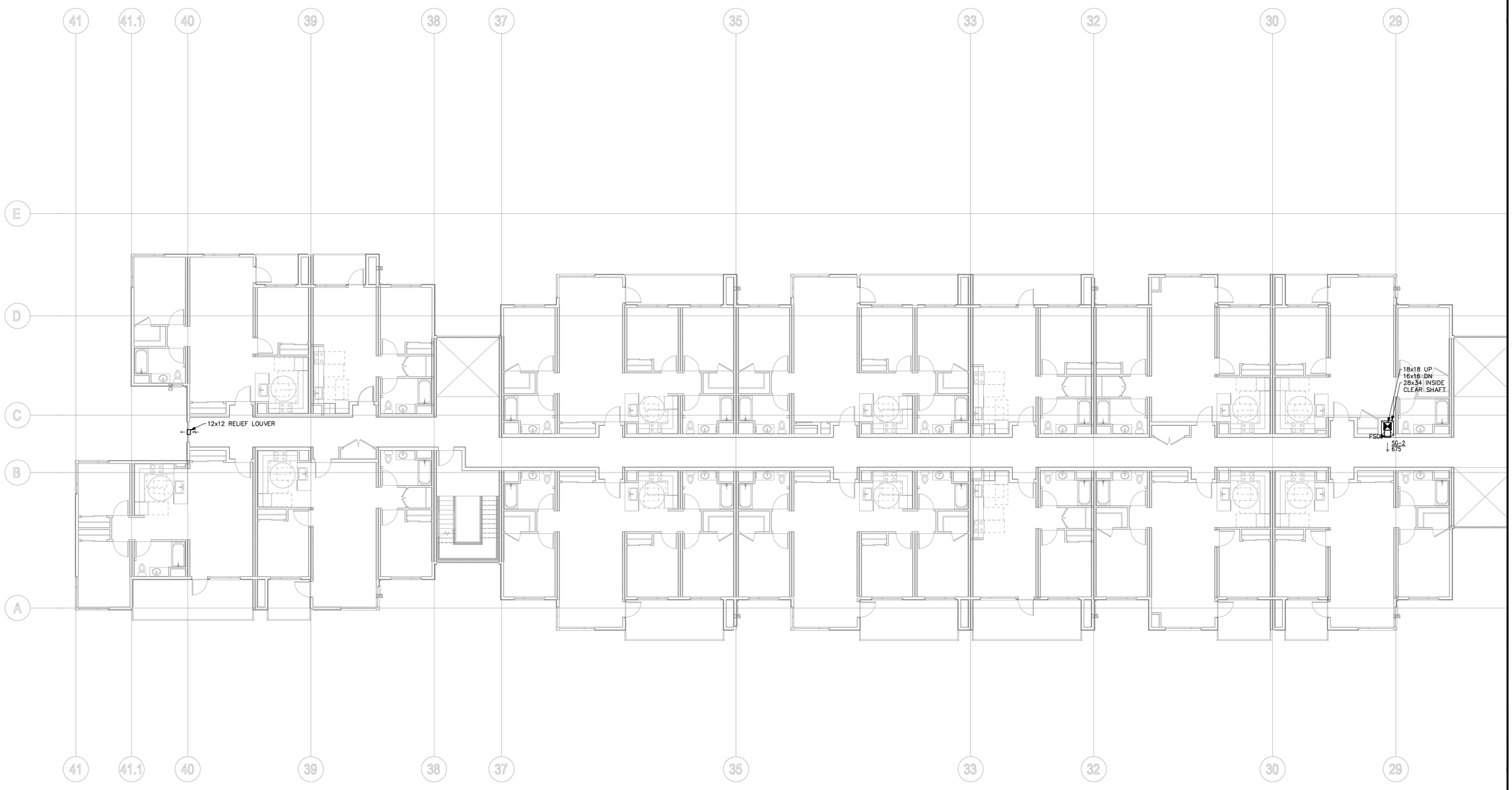

LEVEL 03 – FLOOR PLAN – A

SCALE: 1/8" = 1'-0"

NOT FOR CONSTRUCTION

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKMAN
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 03 - FLOOR PLAN - A

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.03A

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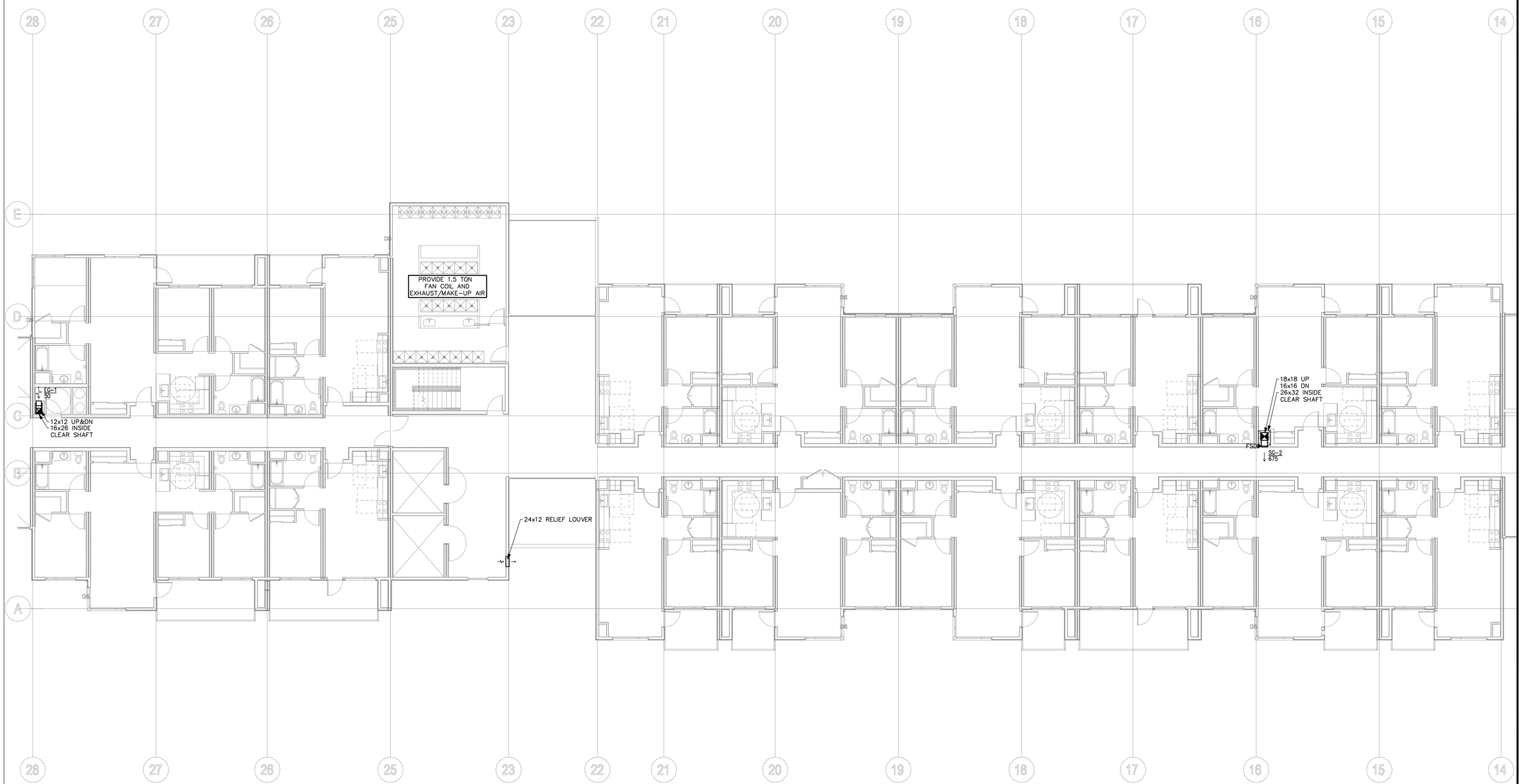

LEVEL 03 – FLOOR PLAN – B

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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MENLO PARK, CA
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KEYMAP

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKMAN
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 03 - FLOOR PLAN - B

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.03B

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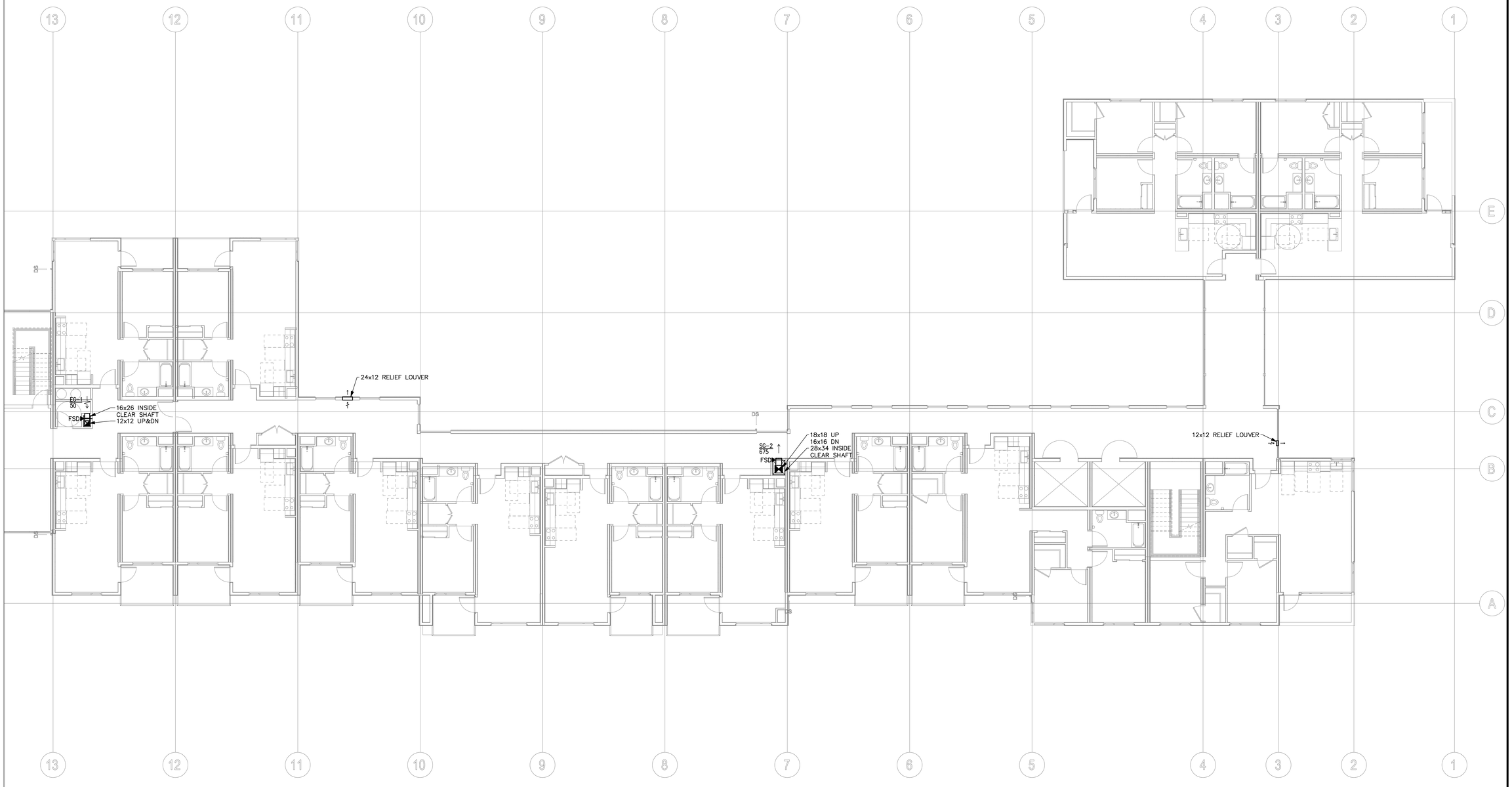

LEVEL 03 – FLOOR PLAN – C

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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MENLO PARK, CA
PREPARED FOR:
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KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 03 - FLOOR PLAN - C

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
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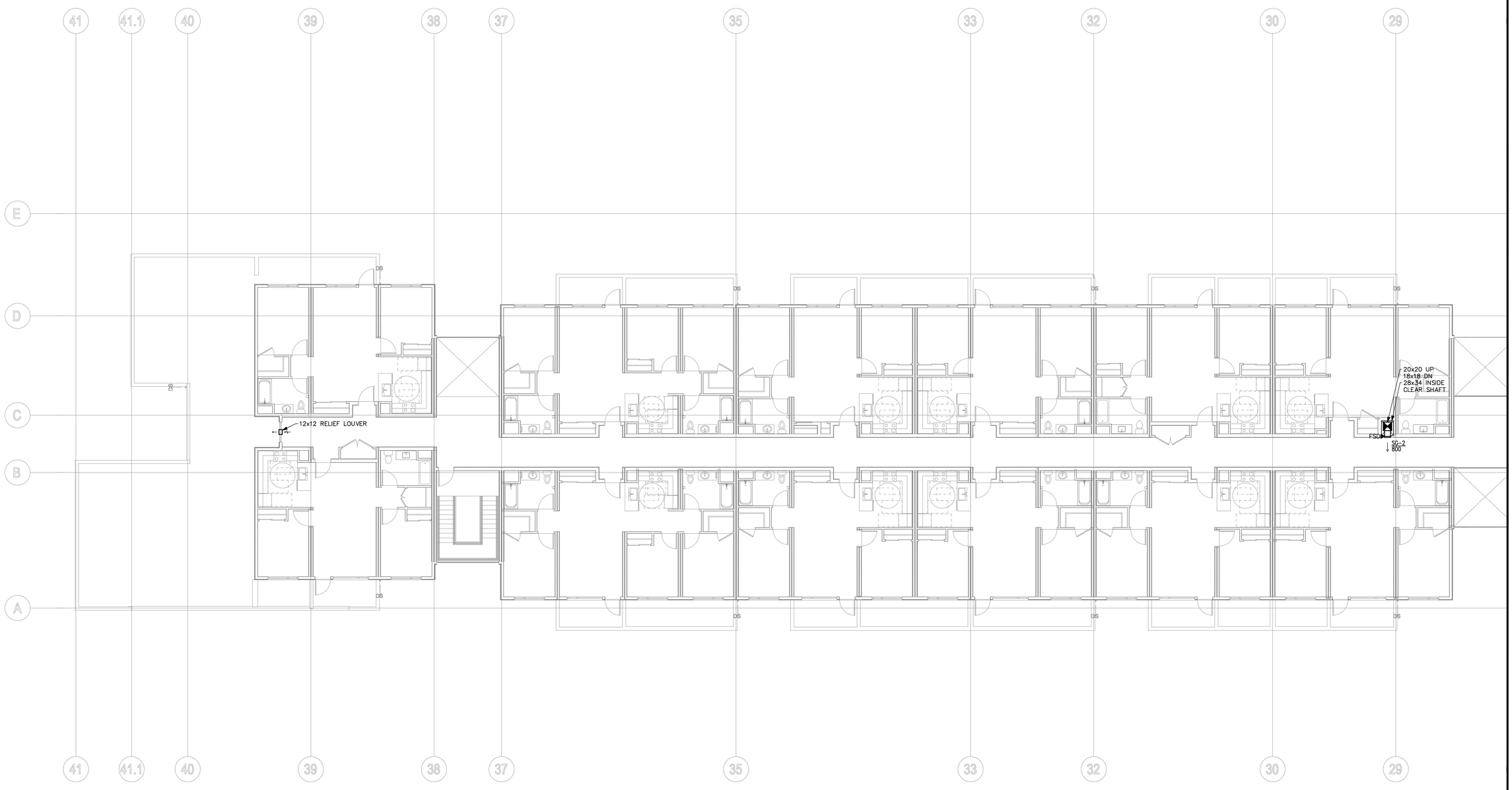

LEVEL 04 – FLOOR PLAN – A

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKER
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 04 - FLOOR PLAN - A

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.04A

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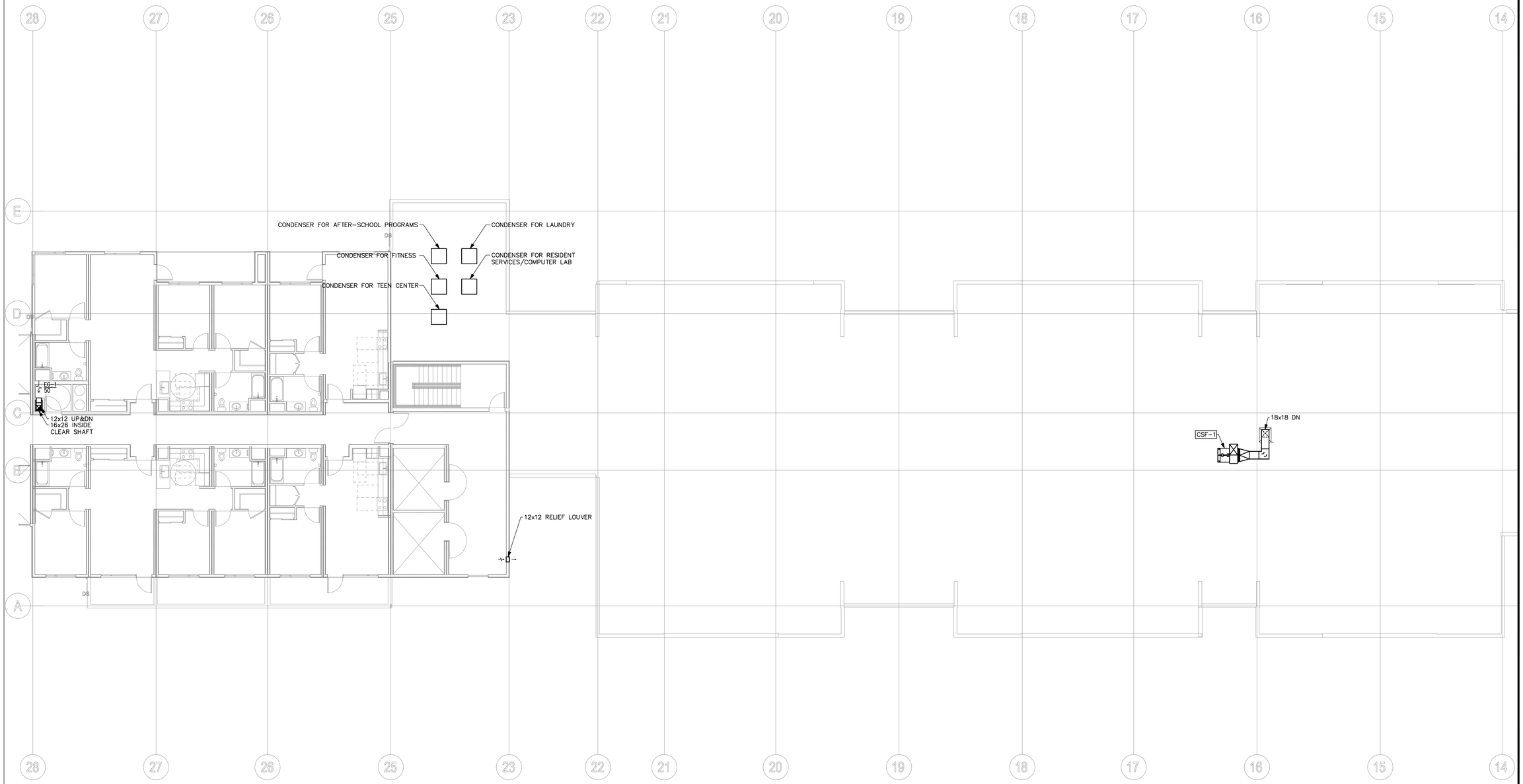

LEVEL 04 – FLOOR PLAN – B

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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MENLO PARK, CA
PREPARED FOR:
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KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKHART
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 04 - FLOOR PLAN - B

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.04B

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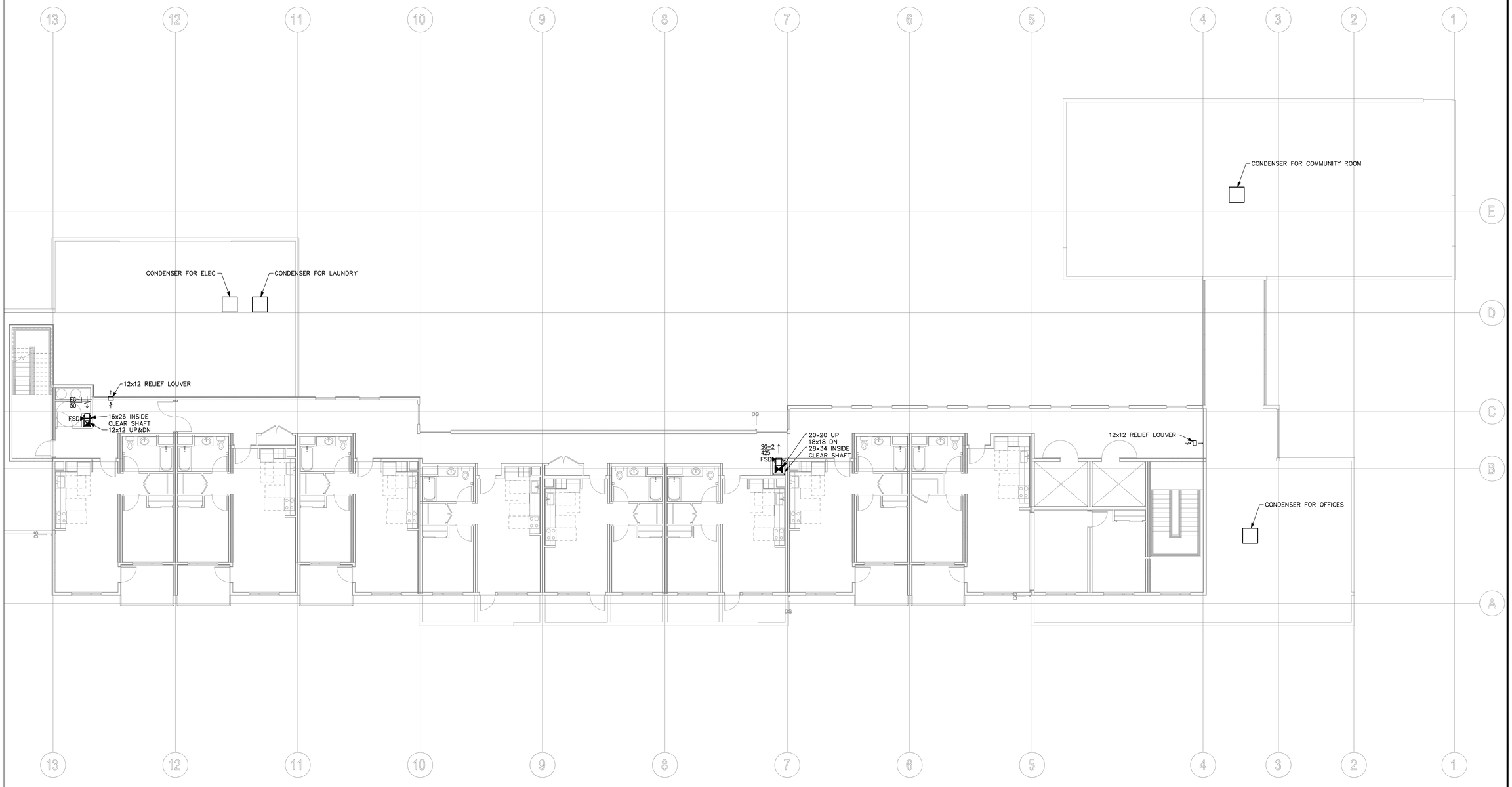

LEVEL 04 – FLOOR PLAN – C

SCALE: 1/8" = 1'-0"

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEVEL 04 - FLOOR PLAN - C

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
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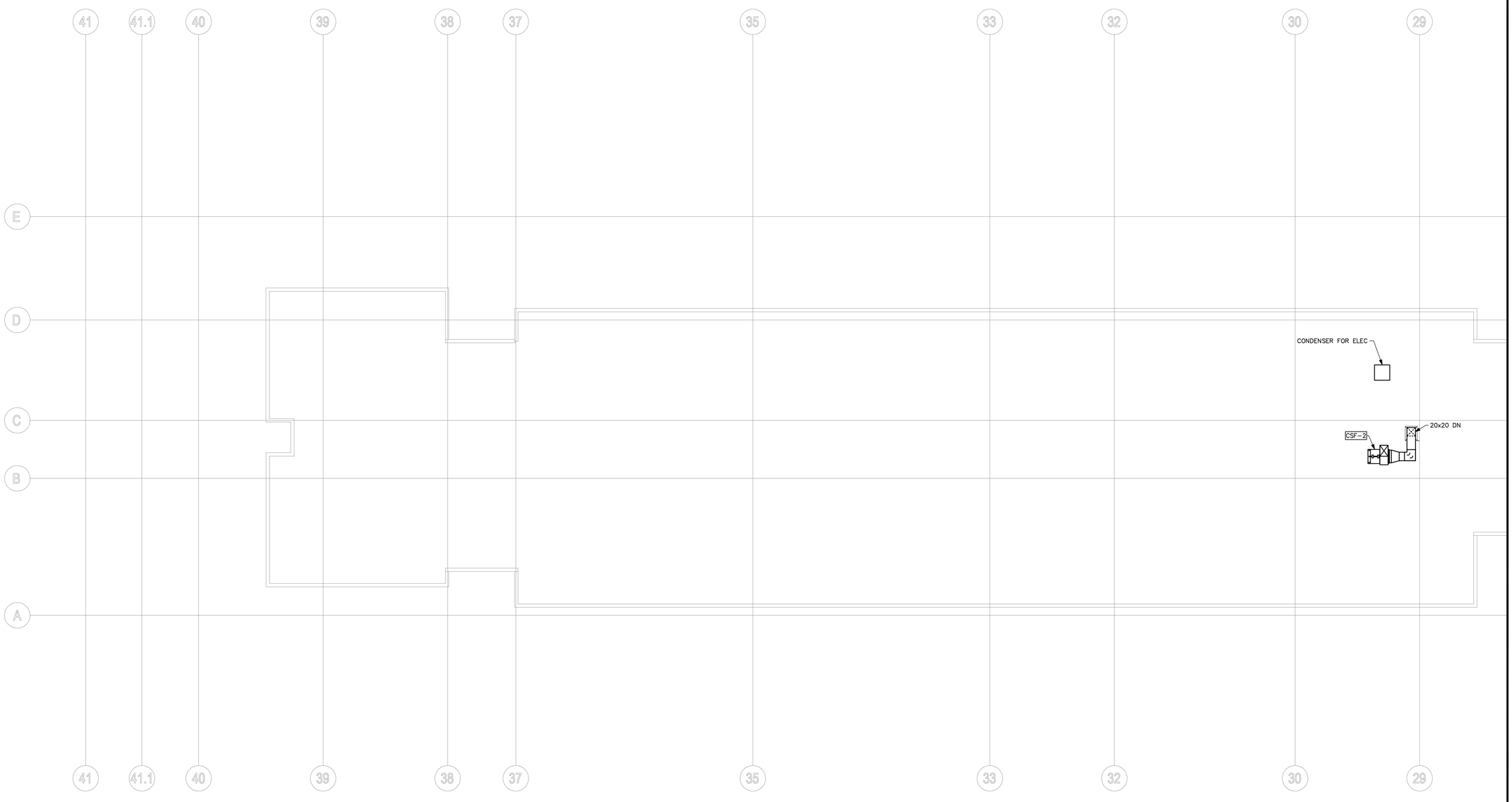

ROOF PLAN – A

SCALE: 1/8" = 1'-0"

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Lynnwood, WA 98036
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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
ROOF PLAN - A

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.05A

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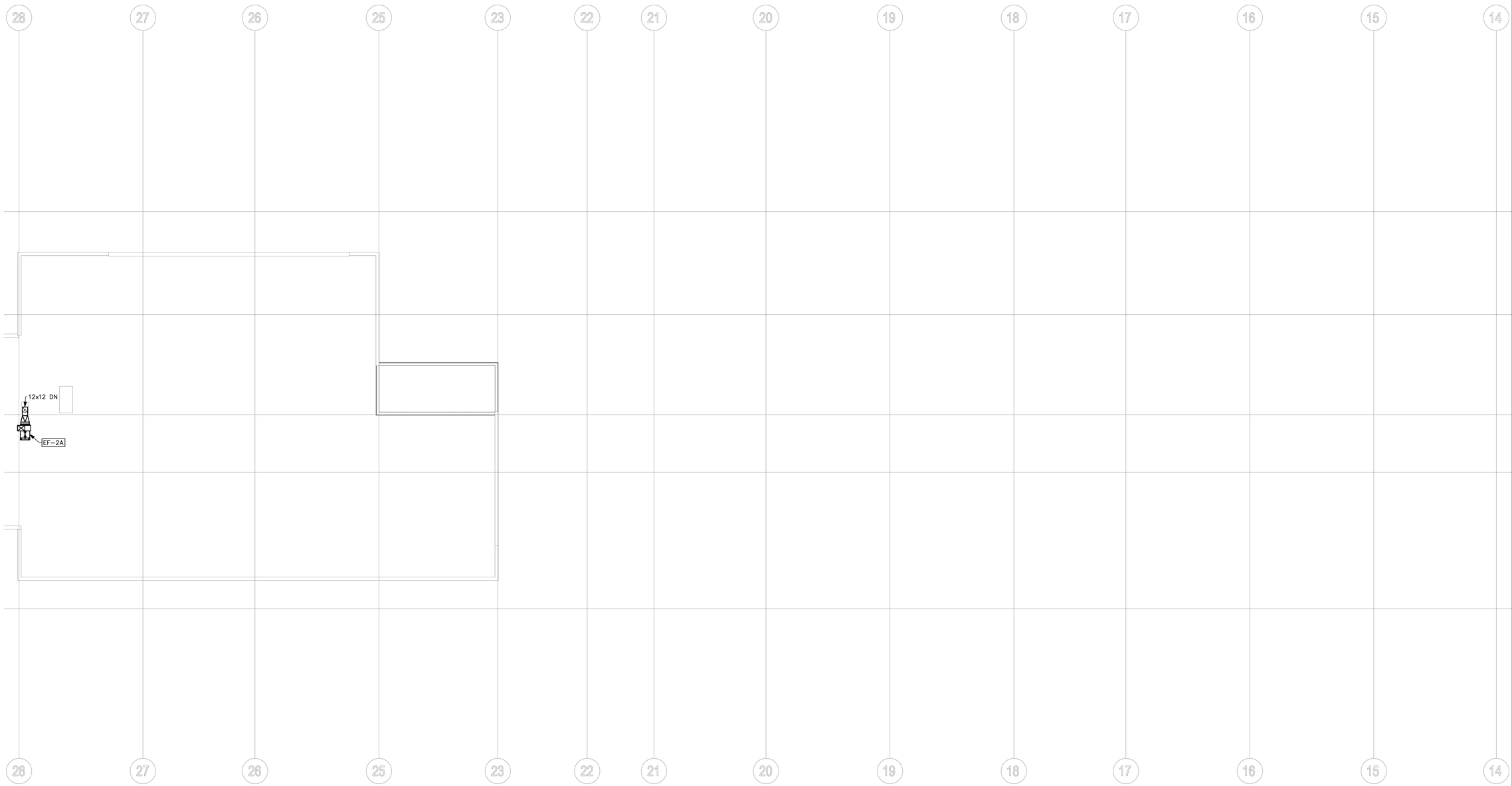

ROOF PLAN – B

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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PREPARED FOR:
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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKHART
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
ROOF PLAN - B

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.05B

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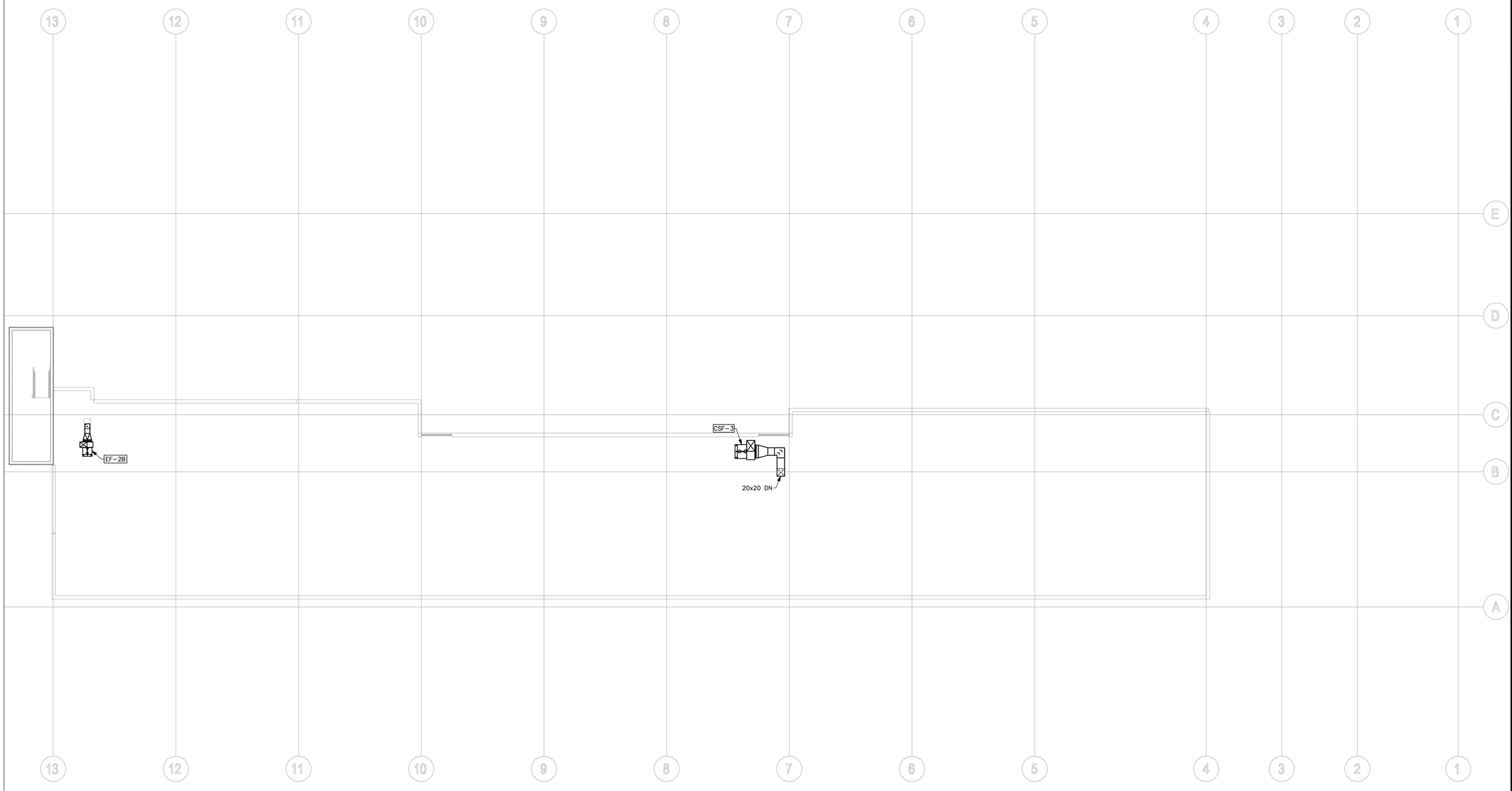

ROOF PLAN – C

SCALE: 1/8" = 1'-0"

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
ROOF PLAN - C

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M2.05C

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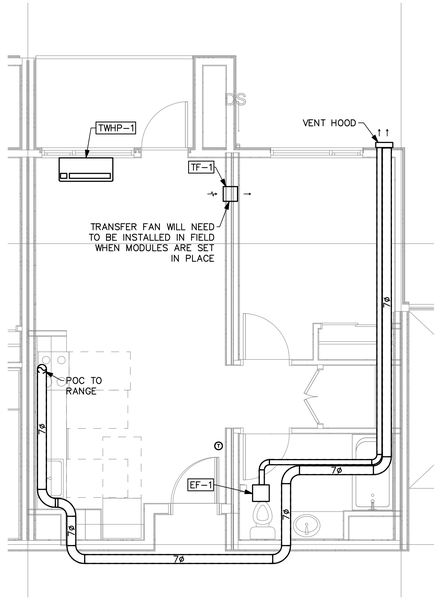
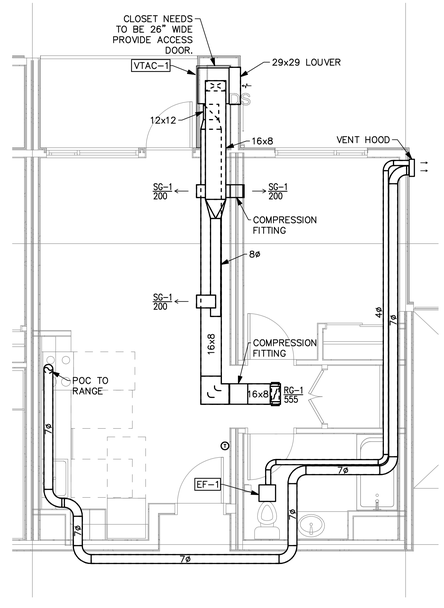


1 BED – PTAC

ENLARGED PLANS

SCALE: 1/4" = 1'-0"

2 / M3.00



1 BED – VTAC

ENLARGED PLANS

SCALE: 1/4" = 1'-0"

1 / M3.00

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING

LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKER
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
UNIT PLANS

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M3.00

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2 BED – VTAC

ENLARGED PLANS

SCALE: 1/4" = 1'-0"

1
M3.01

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

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MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
UNIT PLANS

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M3.01

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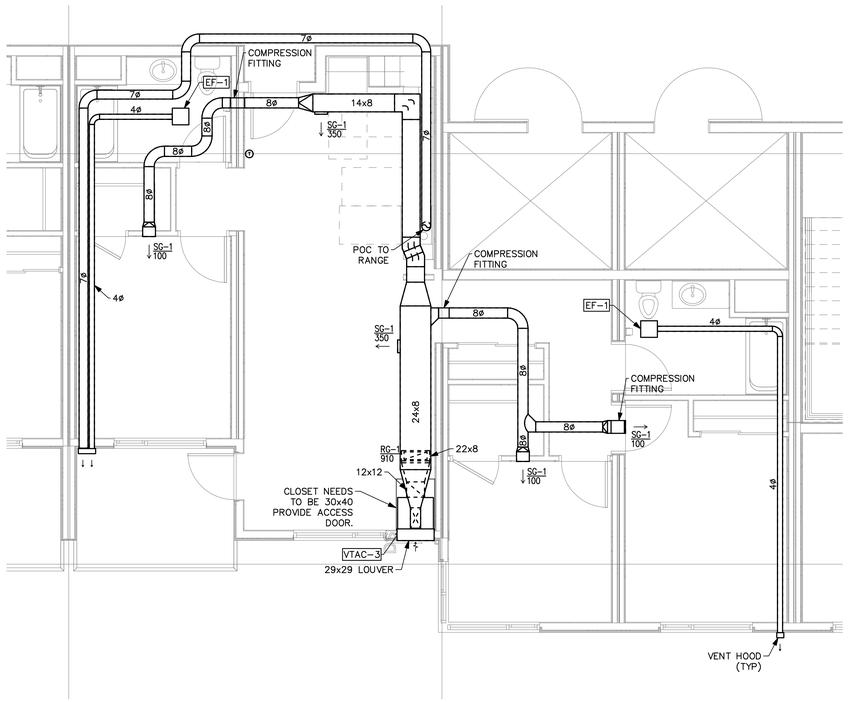
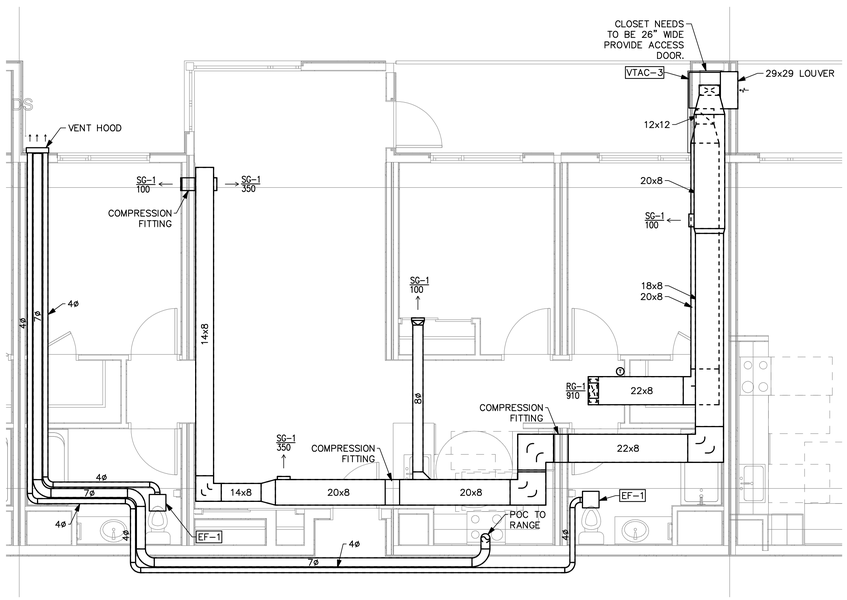


3 BED – VTAC– ALTERNATE

ENLARGED PLANS

SCALE: 1/4" = 1'-0"

2
M3.02



3 BED – VTAC

ENLARGED PLANS

SCALE: 1/4" = 1'-0"

1
M3.02

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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PREPARED FOR:
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KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
UNIT PLANS

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
M3.02

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GENERAL NOTES

GENERAL

1. PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LOCAL CODES, ORDINANCES AND REQUIREMENTS OF UTILITY COMPANIES FURNISHING SERVICES TO INSTALLATION.
2. PROVIDE ITEMS NECESSARY TO COMPLETE ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.
3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND DETERMINE CONDITIONS WHICH MAY AFFECT BID. ANY ITEMS NOT FULLY UNDERSTOOD SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
4. "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, OR MECHANICAL).
5. WHEREVER THE WORD "PROVIDE" IS USED, IT MEANS, "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
6. COORDINATE LOCATION OF ELECTRICAL WITH OTHER TRADES.
7. REFER TO EQUIPMENT DRAWINGS FOR MECHANICAL CHARACTERISTICS (SIZE, LOCATION, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
8. PROVIDE CONDUCTORS AND RACEWAYS PER NATIONAL ELECTRICAL CODE.

MATERIALS AND METHODS

9. PROVIDE RACEWAY AND WIRING AS NOTED, ROUTED CONCEALED WITHIN BUILDING STRUCTURE WHERE POSSIBLE. WHERE RACEWAY CANNOT BE CONCEALED, IT SHALL BE INSTALLED PER PROJECT MANAGER'S DIRECTION.
10. OUTDOOR EXPOSED CONDUIT ROUTING: CONDUITS ROUTED ON ROOF OR EXPOSED TO WEATHER SHALL BE EMT OR LIQUID-TIGHT FLEX. PROVIDE WATER-TIGHT CONNECTIONS AND FITTINGS. CONDUITS ON THE ROOF TO BE A MINIMUM 1" ABOVE THE ROOF SURFACE.
11. CLEARANCES: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET.
12. CONNECTIONS: PROVIDE GRS, METALLIC FLEX, OR LIQUIDTITE FLEX CONDUITS FOR CONNECTIONS TO MOTORS OR MOTORIZED EQUIPMENT.
13. WIRING: PROVIDE MINIMUM #14 AWG WIRE IN APT UNIT LIVING ROOMS AND BEDROOMS. EVERYWHERE ELSE, MINIMUM TO BE #12 AWG WIRE.
14. WIRING: PROVIDE MINIMUM #10 AWG CONDUCTOR SIZE IN 120V BRANCH CIRCUIT RUNS OVER 100' IN LENGTH.
15. WIRING: POWER WIRING SHALL BE COPPER, THWN/THHN, INSULATED FOR 600V. ALUMINUM CONDUCTORS PERMITTED FOR FEEDERS 100 AMPS OR LARGER. INCREASE WIRE AND CONDUIT SIZE TO EQUAL OR EXCEED DESIGNED COPPER RATING.
16. DISCONNECTS: PROVIDE DISCONNECTS, FUSED AND UNFUSED, SHOWN AND REQUIRED BY CODE FOR EQUIPMENT FURNISHED UNDER ELECTRICAL AND MECHANICAL SCOPES OF WORK. REFER TO COORDINATION MATRIX.
17. FUSES: PROVIDE FUSES PER EQUIPMENT NAMEPLATE UNLESS OTHERWISE INDICATED. FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS.
18. SUPPORT: SUPPORT LIGHT FIXTURES FROM BUILDING STRUCTURE. DO NOT SUPPORT FIXTURES FROM SUSPENDED CEILING.
19. LABELS: ELECTRICAL PANEL, TIME SWITCH, DISCONNECT, STARTER, CONTACTOR, PULL BOX, ETC. ENCLOSURES SHALL BE PERMANENTLY LABELED TO IDENTIFY ITS DESIGNATION OR UNIT SERVED. PANEL SCHEDULES MUST BE TYPED.
20. PAINTING: ELECTRICAL ENCLOSURES SHALL BE PAINTED TO MATCH ADJACENT WALL.
21. COVERPLATES: PROVIDE AS FOLLOWS. SUBMIT SAMPLE OF EACH FOR APPROVAL.
    a. MECHANICAL AND ELECTRICAL ROOMS: GALVANIZED STEEL
    b. ALL OTHER AREAS: WHITE COLOR PLASTIC
22. ELECTRICAL CONTRACTOR SHALL REVIEW THE LANDSCAPE PLANS FOR ALL REQUIRED LIGHTING/POWER AND CONTROL WIRING RACEWAY REQUIREMENTS.
25. SITE ELECTRICAL

    TRENCHING: COORDINATE ALL TRENCHING WORK WITH OTHER UTILITY LOCATIONS AND DRAINAGE TRENCHES.
26. UNDERGROUND CONDUITS: PROVIDE PVC, SCHEDULE 40, 3/4" MINIMUM. PROVIDE PVC CONDUIT TRANSITION ELBOW WHEN TURNING UP TO ABOVE GRADE.
27. NOT USED.
28. BELOW SLAB: CONDUIT ROUTED BELOW ON-GRADE FLOOR SLABS SHALL BE INSTALLED PRIOR TO FLOOR SLAB POUR. ROUTE CONDUITS BELOW SLAB AS STRAIGHT AS POSSIBLE TO MINIMIZE BENDS.
29. ALL CONDUITS PENETRATING THE BUILDING ENVELOPE BELOW GRADE SHALL FOLLOW WATERPROOFING REQUIREMENTS IN THE ARCHITECTURAL DRAWINGS.

NEUTRALS

30. AT CONTRACTORS OPTION, NEUTRALS MAY BE SHARED ON COMBINED HOMERUNS UNLESS THE CIRCUIT HAS A GFCI BREAKER, AN ISOLATED GROUND, OR IS FROM A PANEL WITH TVSS PROTECTION. ANY NEUTRAL DOWNSTREAM FROM A DIMMER SHALL BE DEDICATED TO THE DIMMED LOAD.
31. NEUTRAL WIRES SHOWN FOR TWO AND THREE POLE MECHANICAL AND KITCHEN EQUIPMENT MAY BE OMITTED UPON VERIFICATION THAT THEY ARE NOT REQUIRED EITHER FOR OPERATION OR CONTROL CIRCUITS PER MANUFACTURER'S SPECIFICATIONS.

LIGHTING

32. PROVIDE LIGHT FIXTURES WITH PROPER FITTING FLANGES, MOUNTING SUPPORTS, AND ACCESSORY ITEMS, UL LISTED FOR CONDITIONS OF USE.
33. LOW VOLTAGE LIGHTING
    A. PROVIDE LOW VOLTAGE TRANSFORMERS IN NEARBY ACCESSIBLE CEILING SPACE.
    B. PROVIDE LOW VOLTAGE CONDUCTORS SIZED PER MANUFACTURER'S GUIDELINES TO MINIMIZE VOLTAGE DROP.

LIGHTING CONTROL

34. THE MAXIMUM LIGHTING POWER THAT MAY BE CONTROLLED FROM A SINGLE SWITCH OR AUTOMATIC CONTROL SHALL NOT EXCEED THAT WHICH IS PROVIDE BY A TWENTY AMPERE CIRCUIT LOADED TO NOT MORE THAN EIGHTY PERCENT. A MASTER CONTROL MAY BE INSTALLED PROVIDED THE INDIVIDUAL SWITCHES RETAIN THEIR CAPABILITY TO FUNCTION INDEPENDENTLY.
35. BATTERY BALLASTS & EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED LEG OF THE DESIGNATED CIRCUIT.
36. NO LIGHTING SHALL BE ON THE SAME CIRCUIT BREAKER AS EQUIPMENT LOADS.
37. ALL OCCUPANCY SENSORS WITHIN ENCLOSED ROOMS ARE TO BE BE AUTOMATIC OFF, MANUAL ON. PROVIDE LIGHTING CONTROL SYSTEM CAPABLE OF THIS REQUIREMENT PER ENERGY CODE.

MISC.

38. ALL ELECTRICAL ACCESS PANELS ARE TO BE PROVIDED BY THE ELECTRICIAN. SEE SPECIFICATIONS FOR MATERIALS AND APPROVED MANUFACTURERS.
39. PROVIDE ALL NECESSARY FIRE CAULKING & FIRE STOPPING FOR ALL ELECTRICAL EQUIPMENT.
40. WIRING: NON-METALLIC CABLE (ROMEX) IS ALLOWED IN TYPE III OR V CONSTRUCTION ONLY, INSTALLED PER CEC.
41. TAMPER RESISTANT RECEPTACLES ARE REQUIRED FOR ALL 15A AND 20A 120V RECEPTACLES LOCATED IN DWELLING UNITS.
42. ALL RECEPTACLES AND SWITCHES TO BE DECORA TYPE.
43. IF MAGNETIC DOOR HOLDERS ARE 120V, PROVIDE POWER FROM NEAREST CONVENIENCE RECEPTACLE CIRCUIT.
44. ELEVATOR: IF BATTERY LOWERING DEVICE IS PROVIDED, FUSED DISCONNECT SWITCH IS TO HAVE AUXILIARY CONTACTS.

DESIGN/BUILD SYSTEMS

TELEPHONE WIRING SYSTEM:
DESIGN AND PROVIDE COMPLETE, OPERATING, AND FULLY FUNCTIONAL TELEPHONE WIRING SYSTEM PER OWNER REQUIREMENTS. SEE PLANS FOR OUTLET LOCATIONS AND SERVICE ENTRANCE REQUIREMENTS. SUCCESSFUL SUB-CONTRACTOR IS RESPONSIBLE FOR ALL WIRING TERMINATIONS AT THE OUTLETS AND AT THE EQUIPMENT. COORDINATE TERMINATION TYPES WITH EQUIPMENT VENDOR. VERTICAL RISERS ARE TO BE IN RACEWAY, HORIZONTAL WIRING TO BE CABLE. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL LOW VOLTAGE WIRING WITH THE EXCEPTION OF WIRING UPSTREAM OF THE DEMARCATION.

DATA WIRING SYSTEM:
DESIGN AND PROVIDE COMPLETE, OPERATING, AND FULLY FUNCTIONAL DATA WIRING SYSTEM PER OWNER REQUIREMENTS. SEE PLANS FOR OUTLET LOCATIONS AND SERVICE ENTRANCE REQUIREMENTS. SUCCESSFUL SUB-CONTRACTOR IS RESPONSIBLE FOR ALL WIRING TERMINATIONS AT THE OUTLETS AND AT THE EQUIPMENT. COORDINATE TERMINATION TYPES WITH EQUIPMENT VENDOR. VERTICAL RISERS ARE TO BE IN RACEWAY, HORIZONTAL WIRING TO BE CABLE. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL LOW VOLTAGE WIRING WITH THE EXCEPTION OF WIRING UPSTREAM OF THE DEMARCATION.

FIRE ALARM SYSTEM:
DESIGN AND PROVIDE COMPLETE, OPERATING, AND FULLY FUNCTIONAL FIRE DETECTION ALARM SYSTEM THAT MEETS ALL LOCAL CODES AND ORDINANCES. SUCCESSFUL SUB-CONTRACTOR SHALL SUBMIT FULL SET OF PLANS TO OWNER, INDICATING DEVICE LOCATIONS, WIRING, CONNECTIONS, AND SPECIAL MOUNTING DETAILS. REFER TO ELECTRICAL PLANS FOR MAIN EQUIPMENT LOCATIONS. SUBMIT PLANS AND OBTAIN PERMIT FROM LOCAL AHJ. DEVICES SHOWN ON PLANS ARE FOR REFERENCE ONLY AND ARE ONLY INTENDED AS DESIGN INTENT.

ALL DWELLINGS UNITS AND SLEEPING UNITS SHALL BE PRE-WIRED TO SUPPORT FUTURE INSTALLATION OF VISIBLE NOTIFICATION APPLIANCES IN ALL UNITS. THE WIRING SHALL NOT BE LIMITED TO FIRE ALARM NOTIFICATION CIRCUITS AND THE ASSOCIATED JUNCTION BOXES, AND DEPENDING ON THE DESIGN MAY INCLUDE SIGNALING LINE OR INITIATING CIRCUITS. IN LIEU OF ACTUAL PRE-WIRING, APPROVED ELECTRICAL CONDUIT INSTALLED IN ALL UNITS WITH SUITABLE JUNCTION BOXES AND DIRECT TERMINATION AT THE FIRE ALARM CONTROL UNIT LOCATION WOULD BE AN ACCEPTABLE ALTERNATIVE. THE FIRE ALARM DESIGNER SHALL PROVIDE COMPLETE PLANS, WHICH SHALL INCLUDE DETAILS SHOWING HOW FUTURE VISIBLE APPLIANCE EXPANSIONS ARE TO BE ACCOMPLISHED. VISIBLE APPLIANCES, CONNECTIONS TO SMOKE ALARMS OR SYSTEM DETECTORS AND ADDITIONAL FIRE ALARM EQUIPMENT (NAC PANELS, POWER SUPPLIES, BATTERIES, ETC) NECESSARY FOR FUTURE EXPANSION NEED NOT BE INSTALLED UNTIL VISIBLE APPLIANCES ARE DEEMED NECESSARY.

FIRE SMOKE DAMPERS REQUIRE A SMOKE DETECTOR WITHIN 5'. THIS IS TO BE INCORPORATED INTO THE FIRE ALARM SYSTEM. PER CBC 717.3.3.2.4

LOW FREQUENCY AUDIBLE NOTIFICATION APPLIANCES ARE REQUIRED WITHIN ALL SLEEPING UNITS.

LEED 10.2(b) PROVIDE CO DETECTORS IN ALL ROOMS THAT SHARE A DOOR WITH THE GARAGE.

IN ELEVATOR SHAFTS, PROVIDE A VESDA AIR ASPIRATING SMOKE DETECTOR. PROVIDE CONNECTION TO FACP AND PROVIDE REMOTE LED INDICATOR (LOCATION TO BE BY FIRE ALARM CONTRACTOR APPROVED BY AHJ).

MASTER TELEVISION DISTRIBUTION SYSTEM:
DESIGN AND PROVIDE COMPLETE, OPERATING, AND FULLY FUNCTIONAL SATELLITE AND CABLE TELEVISION DISTRIBUTION SYSTEM. SEE PLANS FOR OUTLET LOCATIONS AND SERVICE ENTRANCE REQUIREMENTS. SUCCESSFUL SUB-CONTRACTOR IS RESPONSIBLE FOR ALL WIRING & WIRING TERMINATIONS AT THE OUTLETS AND AT THE EQUIPMENT. COORDINATE TERMINATION TYPES WITH ACTIVE EQUIPMENT VENDOR. COORDINATE MAXIMUM WIRE LENGTH WITH ACTIVE EQUIPMENT SUPPLIER, VERIFY IT IS OF SUFFICIENT SIGNAL STRENGTH. VERTICAL RISERS ARE TO BE IN RACEWAY, HORIZONTAL WIRING TO BE CABLE. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL LOW VOLTAGE WIRING WITH THE EXCEPTION OF THE CABLE TV TRUCKLINE WIRING AND WIRING UPSTREAM OF THE DEMARCATIONS.

CCTV CAMERAS:
DESIGN AND PROVIDE COMPLETE, OPERATING, AND FULLY FUNCTIONAL SECURITY CAMERA SYSTEM BASED ON OWNER REQUIREMENTS. ALL WIRING IS TO BE IN CONDUIT. CAMERAS TO BE WIRED TO A DVR LOCATED IN THE MANAGEMENT OFFICE. DVR TO HOLD 28 DAYS. CAMERAS TO BE GLOBE TYPE FOR READJUSTING. REFER TO PLANS FOR LOCATIONS.

DOOR HARDWARE:
CONTRACTOR IS TO PROVIDE ALL LINE VOLTAGE AND LOW VOLTAGE WIRING TO DOOR HARDWARE, DOOR ACCESS, DOOR ALARMS, AND DOOR BUZZER EQUIPMENT. COORDINATE ALL LOCATIONS OF DEVICES AND REQUIREMENTS BASED ON SPECIFICATIONS VENDOR SHOP DRAWINGS.

CARD READERS:
DESIGN AND PROVIDE COMPLETE, OPERATING, AND FULLY FUNCTIONAL CARD READER SYSTEM BASED ON OWNER REQUIREMENTS. CARD READER SYSTEM TO BE PROGRAMMABLE WITH TIME ACCESS LIMITATIONS, AND MUST TRACK USER DATA.

SECURITY ALARM SYSTEM:
CONTRACTOR IS TO FURNISH AND INSTALL A FULLY FUNCTION ALARM SYSTEM. SYSTEM TO BE MONITORED BY AN OUTSIDE COMPANY. REFER TO ELECTRICAL PLANS FOR LOCATIONS. ALL LOCATIONS ARE TO BE PROVIDED WITH MOTION AND DOOR/WINDOW DETECTORS.

EMERGENCY RESPONDER RADIO COVERAGE SYSTEM (ERRCS):
CONTRACTOR SHALL PROVIDE A FULLY FUNCTIONAL AND CODE COMPLIANT ERRCS SYSTEM TO PROVIDE SUFFICIENT RADIO COVERAGE THROUGHOUT THE BUILDING. GENERAL CONTRACTOR SHALL CARRY A BUDGET TO COVER A FULL COVERAGE SYSTEM. DESIGN/BUILD CONTRACTOR SHALL PROVIDE DESIGN PLANS FOR DESIGN TEAM TO REVIEW. HEADEND EQUIPMENT TO BE LOCATED IN A LOCATION FOR EASY VENTILATION.

2-WAY COMMUNICATION SYSTEM:
CONTRACTOR SHALL PROVIDE A FULLY FUNCTIONAL AND CODE COMPLIANT 2-WAY COMMUNICATION SYSTEM. REFER TO PLANS FOR DEVICE LOCATIONS.

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT, ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AIC	AMPS INTERRUPTING CAPACITY
AL	ALUMINUM
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BRKR	BREAKER
BLDG	BUILDING
BOH	BACK OF HOUSE
C	COIL or CONDUIT
CKT	CIRCUIT
CO	CONDUIT/RACEWAY ONLY OR CARBON MONOXIDE
CT	CURRENT TRANSFORMER
Cu	COPPER
CW	COOL WHITE
DCO	DUPLEX CONVENIENCE OUTLET
DN	DOWN
EXIST	EXISTING
EF	EXHAUST FAN
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
EQUIP	EQUIPMENT
FACP	FIRE ALARM CONTROL PANEL
FLR	FLOOR
FLUOR	FLUORESCENT
FOH	FRONT OF HOUSE
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HT	HEAT TRACE
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILLS
KEC	KITCHEN EQUIPMENT CONTRACTOR
KVA	KILOVOLT AMPERES
KW	KILOWATT
LTG	LIGHTING
MATV	MASTER ANTENNA TELEVISION
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
N	NEUTRAL
NIC	NOT IN CONTRACT
NEC	NATIONAL ELECTRICAL CODE (NFPA-70)
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NT	NEON TRANSFORMER
NTS	NOT TO SCALE
PNL	PANEL
POC	POINT OF CONNECTION
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
QTY	QUANTITY
RECEPT	RECEPTACLE
RI	ROUGH-IN
RM	ROOM
RO	RACEWAY ONLY
SHT	SHEET
SPEC	SPECIFICATIONS
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
V	VOLTS
W	WATTS
WW	WARM WHITE
WP	WEATHERPROOF
W/	WITH
W/O	WITHOUT
XFMR	TRANSFORMER
XFR	TRANSFER
Z	IMPEDANCE OR ZONE

LEED NOTES

LEED EA 8.2 ADVANCED IN-UNIT LIGHTING
MEET TITLE-24 WITH HIGH-EFFICACY LIGHTING THROUGHOUT THE UNITS

LEED SS 7.3 PARKING CAPACITY/LOW EMITTING VEHICLES FOR MID-RISE
5% OF TOTAL CAPACITY IS PREFERRD PARKING SPOTS FOR LOW-EMITTING VEHICLES.

LEED EQ 10.2 PROVIDE CO DETECTORS IN ALL ROOMS THAT SHARE A DOOR WITH THE GARAGE.

BIDDING NOTES

THE FOLLOWING SYSTEMS ARE TO BE INCLUDED IN THE BIDDING OF THE PROJECT. ANY QUESTIONS NEED TO BE PRESENTED DURING THE BIDDING PHASES. CHANGE ORDERS ARE NOT ALLOWED FOR ANY OF THE ITEMS LISTED BELOW:

1. POWER TO ALL POWERED DOORS INCLUDING GARAGE DOOR AND ALL NECESSARY WIRING.
2. POWER TO ALL ELECTRONIC DOOR STRIKES (FROM NEAREST 120V GENERAL PURPOSE RECEPTACLE CIRCUIT).
3. RACKING IN PBX ROOM AND IDF ROOMS.
4. INTERCOM ENTRY SYSTEM AT MAIN ENTRY.
5. SMOKE GUARDS: PROVIDE 120V POWER AND SMOKE DETECTOR JUST OUTSIDE EACH PAIR OF ELEVATOR DOORS. REFER TO ARCH PLANS FOR LOCATIONS AND QUANTITY.
6. ALL NECESSARY ROOF PENETRATIONS TO THE LIGHTING AND EQUIPMENT SHOWN PER PLANS.
7. ALL RECESSED ITEMS SHALL HAVE A FIRE RATED OPENING. ELECTRICAL CONTRACTOR SHALL PRE-ROCK OPENINGS FOR HIS EQUIPMENT (INCLUDING LUMINARIES AND DEVICES) TO MAINTAIN FIRE RATING.
8. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE CAULKING AND PUTTY PACKS FOR HIS FIREWALL PENETRATIONS. NO BACK TO BACK OUTLETS.
9. ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING FOR DUCT SMOKE DETECTORS.
10. ALL FLOOR OUTLETS TO BE BRASS. PROVIDE AND INSTALL STEEL CITY SERIES FLOOR BOX 664-SC.
11. INSTALLATION OF ALL LOW VOLTAGE LIGHTING TRANSFORMERS AND REMOTE DRIVERS.
12. TRASH CHUTE SYSTEM WIRING (WITH THE CIRCUITING PROVIDED).
13. LIGHTING IN GARAGES AND BOH SPACES: LIGHT FIXTURES AND EXIT SIGNS MAY NEED TO BE SUSPENDED DUE TO OTHER TRADES, IT SHALL BE INCLUDED TO PROVIDE HANGING SUPPORTS WHERE NECESSARY.
14. CONTRACTOR SHALL PROVIDE A SELECTIVE COORDINATION STUDY OF THE ELECTRICAL SYSTEM WITH THE SUBMITTAL FOR ISSUANCE TO THE CITY.
15. POWER TO ALL FIRE ALARM POWER SUPPLIES (PER LAYOUT BY FIRE ALARM CONTRACTOR).
16. CONNECTION TO ROOFTOP AMENITY EQUIPMENT (INCLUDING FIRE PITS WITH CIRCUITRY AS SHOWN).
17. PG&E REMOTE METER CONDUIT AND ANTENNA JBOX AS SHOWN PER PLANS.
18. PUMPS: CONDUIT AND WIRING FROM THE PUMP TO THE CONTROL BOX. CONTROLLER LOCATION TO BE PER PLUMBING CONTRACTOR.
19. AMENITY AREA HOODS TO HAVE ACCESSIBLE CONTROLS. ON/OFF SWITCH MAY NOT BE COMPATIBLE WITH THE SPECIFIED HOOD. PROVIDE DACOR DHW301 HOOD WITH DACRO ARSLC REMOTE CONTROLLER AS BASIS OF DESIGN. CONFIRM WITH ID PLANS PRIOR TO ANY INSTALLATION.

CODES

CODES:

- CALIFORNIA ELECTRIC CODE 2016
- CALIFORNIA BUILDING CODE 2016
- CALIFORNIA FIRE CODE 2016
- NATIONAL ELECTRIC CODE 2014
- CALIFORNIA TITLE-24 ENERGY CODE 2016
- CALIFORNIA GREEN BUILDING STANDARD 2016

LOW LEVEL EXIT SIGNS ARE NOT REQUIRED IN THE CORRIDORS FOR APARTMENT BUILDINGS (ONLY IN CORRIDORS OF HOTELS)

CITY MUNICIPAL CODE: EV CHARGING REQUIREMENT: _____

PRE-WIRING FOR FUTURE INSTALLATION OF AN ELECTRIC VEHICLE CHARGING STATION ON EACH LEVEL.

PRE-CONSTRUCTION MEETING

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS,AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL	2 HOURS
PLUMBING/PIPING	2 HOURS
ELECTRICAL	2 HOURS
GENERAL CONTRACTOR	ALL SESSIONS

LEGEND

##	LIGHT FIXTURE CALLOUT
	ILLUMINATED EXIT SIGN, ARROWS AS INDICATED
$	SINGLE POLE, SINGLE THROW LIGHT SWITCH, 20A (WP = WEATHERPROOF COVER)
$3	THREE-WAY LIGHT SWITCH, 20A
$4	FOUR-WAY LIGHT SWITCH, 20A
$T	TIMER SWITCH
	DIMMER SWITCH
$a	SWITCH, SINGLE POLE; WITH SWITCHING SUBSCRIPT 'a'
$x $y OS	DUAL SWITCHES, BOTH WITH OCCUPANCY SENSOR CONTROL
$OS	OCCUPANCY SENSOR, WALL MOUNTED
OS	OCCUPANCY SENSOR, CEILING MOUNTED
	SINGLE RECEPTACLE, GROUNDED
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, 1/2 HOT
IG	DUPLEX RECEPTACLE, ISOLATED GROUND
GFCI	DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTION (GFCI)
	DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTION (GFCI) LOCATED ABOVE COUNTER
	QUAD RECEPTACLE, GROUNDED
PC	PHOTOCELL
WP GFCI	DUPLEX RECEPTACLE, GFCI WITH WEATHERPROOF COVER
	FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE AS NOTED
SD	PHOTOELECTRIC SMOKE DETECTOR (120V IN APARTMENT UNITS, POWERED BY FIRE ALARM SYSTEM ELSEWHERE)
SD	COMBINATION SMOKE & CARBON MONOXIDE DETECTOR (120V IN APARTMENT UNITS, POWERED BY FIRE ALARM SYSTEM ELSEWHERE)
	JUNCTION BOX
	CCTV SECURITY CAMERA

DOOR ACCESS/CONTROL EQUIPMENT

A	INTRUSION DETECTION (DOOR OR WINDOW)
B	DOOR DETECTOR BUZZER IF PROPPED OPEN
C	EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN
FA	DOOR TO AUTOMATICALLY OPEN IN A FIRE ALARM EVENT
CR	KEY CARD READER ACCESS FOB

HTV	TELEVISION CABLE OUTLET
T	TELEPHONE OUTLET, MOUNTED AT 18" UNLESS OTHERWISE INDICATED
D	DATA OUTLET, MOUNTED AT 18" UNLESS OTHERWISE INDICATED
TD	TELEPHONE & DATA OUTLET IN DUPLEX BOX
HTVD	SINGLE GANG JBOX WITH 1 DATA AND 1 TV OUTLET
	PANELBOARD
	ELECTRICAL DISTRIBUTION EQUIPMENT
	CIRCUIT BREAKER DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MAGNETIC MOTOR STARTER
	COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH
C	CONTACTOR
T	THERMOSTAT
	MOTOR CONNECTION
$M	MOTOR RATED SWITCH
T	TRANSFORMER
	EQUIPMENT CONNECTION, REFER TO DESCRIPTION ON PLANS FOR WHICH SPECIFIC EQUIPMENT CONNECTION.

COMMON EQUIPMENT CONNECTIONS:

WH	120V CONNECTION TO WATER HEATERS
EF	120V CONNECTION TO EXHAUST FAN
DAMPER	120V CONNECTION TO MOTORIZED DAMPER
DSD	120V CONNECTION TO FIRE ALARM SYSTEM DUCT MOUNT SMOKE DETECTOR

2-WAY COMM	2-WAY COMMUNICATION DEVICE, REFER TO DETAIL 1/E700
FSD	120V CONNECTION TO FIRE/SMOKE DAMPER
	DOORBELL
	DOORBELL CHIME
T	DOORBELL XFMR

A PART OF THE DESIGN/BUILD FIRE ALARM SYSTEM

HD	HEAT DETECTOR
FS	SPRINKLER FLOW SWITCH
TS	SPRINKLER VALVE TAMPER SWITCH
HS	FIRE ALARM HORN/STROBE LIGHT
H	FIRE ALARM HORN
S	FIRE ALARM STROBE
MH	MINI HORN
F	FIRE ALARM PULL STATION
CO	CARBON MONOXIDE DETECTOR POWERED BY FIRE ALARM SYSTEM
	ELECTRO-MAGNETIC DOOR HOLDER, POWERED BY FIRE ALARM SYSTEM

DRAWING INDEX

DWG	DESCRIPTION	INCLUDED IN SET: 50% SD 8/13/2018	INCLUDED IN SET: 100% SD 10/12/2018	SHEETS REVISED
E000	LEGEND, INDEX, GENERAL NOTES	●	●	
E001	LUMINAIRE SCHEDULE	●	●	
E100	SITE LIGHTING		●	
E101	SITE PHOTOMETRICS		●	
E102	SITE POWER		●	
E201A	LEVEL 1 SECTION A LIGHTING	●	●	
E201B	LEVEL 1 SECTION B LIGHTING	●	●	
E201C	LEVEL 1 SECTION C LIGHTING	●	●	
E202A	LEVEL 2 SECTION A LIGHTING/POWER	●	●	
E202B	LEVEL 2 SECTION B LIGHTING/POWER	●	●	
E202C	LEVEL 2 SECTION C LIGHTING/POWER	●	●	
E203A	LEVEL 3 SECTION A LIGHTING/POWER	●	●	
E203B	LEVEL 3 SECTION B LIGHTING/POWER	●	●	
E203C	LEVEL 3 SECTION C LIGHTING/POWER	●	●	
E204A	LEVEL 4 SECTION A LIGHTING/POWER	●	●	
E204B	LEVEL 4 SECTION B LIGHTING/POWER	●	●	
E204C	LEVEL 4 SECTION C LIGHTING/POWER	●	●	
E205A	ROOF SECTION A LIGHTING/POWER	●	●	
E205B	ROOF SECTION B LIGHTING/POWER	●	●	
E205C	ROOF SECTION C LIGHTING/POWER	●	●	
E301A	LEVEL 1 SECTION A POWER	●	●	
E301B	LEVEL 1 SECTION B POWER	●	●	
E301C	LEVEL 1 SECTION C POWER	●	●	
E400	UNIT PLANS	●	●	
E500	ONELINE DIAGRAM			

NOT FOR CONSTRUCTION

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
INDEX, GENERAL NOTES

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E0.00

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SITE LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	LAMP	MODEL	BALLAST	MOUNTING	INPUT VA	NOTE 1
EF3		BUILDING-MOUNTED LED FLOOD LIGHT	(1) 25W LED	EATON ENTRI LED E01-LED-E1-BL2-DIM	ELECTRONIC	WALL	25	EXTERIOR WALKWAYS
L5		PEDESTRIAN BOLLARD LIGHT	(1) 45W LED	LUMINIS CL820	ELECTRONIC	POLE	45	EXTERIOR SITE PATHWAY
S1B		POLE LIGHT, FULL CUTOFF, HOUSE SIDE SHIELD	(1) 57W LED	RAB LIGHTING ALED150-50 TYPE 4 DISTRIBUTION WITH 20' STEEL POLE	ELECTRONIC	POLE	57	SITE LIGHTING
S1C		POLE LIGHT, FULL CUTOFF, HOUSE SIDE SHIELD	(1) 57W LED	RAB LIGHTING ALED150-50 TYPE 3 DISTRIBUTION WITH 20' STEEL POLE	ELECTRONIC	POLE	57	SITE LIGHTING
S2		12' PEDESTRIAN SCALE POLE LIGHT, FULL CUTOFF, TYPE V DISTRIBUTION WITH HOUSE SIDE SHIELD	(1) 25W LED	COOPER LIGHTING MESA LED MSA-E01-LED-E1-5XQ-FINISH-LCF-LB/HSS-21 PROVIDE FROSTED DIFFUSER WITH 12' STEEL POLE	ELECTRONIC	CONCRETE BASE WITH STEEL POLE	25	SITE LIGHTING

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	LAMP	MODEL	BALLAST	MOUNTING	INPUT WATTS	NOTES
1A		LINEAR LED RECESSED FIXTURE	(4) 12W LED	AXIS BEAM 2 LED	ELECTRONIC	RECESSED	48	CORRIDORS
1A1		LINEAR LED RECESSED FIXTURE	(2) 12W LED	AXIS BEAM 2 LED	ELECTRONIC	RECESSED	24	CORRIDORS
1B		4" LED RECESSED	(1) 20W LED	PHILLIPS LIGHTOLIER	ELECTRONIC	RECESSED	20	CORRIDORS, PUBLIC SPACE
1F		6" HANGING LED PENDANT	(1) 18.5W LED	LUMETTA D-6 PENDANT AP506	ELECTRONIC	PENDANT	18.5	MAILROOM
1G		LINEAR LED SURFACE MOUNTED	(4) 4.2W LED	PRUDENTIAL LIGHTING HALF-SNAP	ELECTRONIC	SURFACE	17	STAIRWAYS
A1		LED 4' SURFACE LENSED STRIP LIGHT	(1) 27W LED 3000K	LITHONIA #STL4-30L-EZ1-LP830	ELECTRONIC	SURFACE	27	BACK OF HOUSE
EM		BUG EYES EMERGENCY LIGHTING WALL PACK LED	(2) 5W LED	LITHONIA ELM2-LED	ELECTRONIC	CEILING	2	EM PATHWAY
F2		4' WALL MOUNT LED, WITH BUILT-IN OCCUPANCY SENSOR	(1) 28W LED	LITHONIA: WL4-30L-EZB-LP835-N80-NESPDT7-DIM10-EL14L	ELECTRONIC	WALL OR CEILING	28	STAIRS, BUILT-IN OCCUPANCY SENSOR
F20A		2'X2' DIRECT/INDIRECT RECESSED, LED, 0-10V DIMMING	(1) 20W LED, 3000K	LITHONIA 2VTL2 20L-ADP-EZ1-LP830, 2VT2-F916	0-10V DIMMING	CEILING	20	COMPUTER ROOM, OFFICES
G02		17" DIAMETER CEILING SURFACE WITH ACRYLIC DIFFUSER	(3) 18W GU24	NUVO: 60-901	ELECTRONIC	CEILING	54	APARTMENTS LIVING ROOM & DINING ROOM & BEDROOM
G04		1'X4' LIGHT PUFF SURFACE MOUNT WRAP	(2) 32W T8	LIGHT CONCEPTS 10640-RE	ELECTRONIC	CEILING	62	APARTMENT KITCHEN
G05		12" DIAMETER CEILING SURFACE WITH ACRYLIC DIFFUSER	(1) 18W T3	NUVO: 60-916	ELECTRONIC	CEILING	18	APARTMENT ENTRY, HALL, & WALK-IN CLOSET
G06		WALL SURFACE MOUNT VANITY	(2) 14W T5	BROWNLEE 5010 24 217L CEC ES4	ELECTRONIC	WALL	28	APARTMENTS VANITY
G07		FAN/LIGHT WITH FAN ACTIVATED BY HUMIDISTAT	(2) 18W LED	PANASONIC FV-05-11VKSL1, FV-CSVK1	SELF BALLASTED LAMPS	CEILING	36	2-SPEED FAN, RUNS AT A CONTINUOUS LOW SPEED WITH AN INTEGRAL CONDENSATION SENSOR TO RAMP UP TO A HIGH SPEED WHEN MOISTURE IS PRESENT, WITH BUILT IN TIMER DELAY. LIGHT SWITCH CONTROLLED BY WALL SWITCH
G08		EXTERIOR MOUNTED WALL PACK	(1) 13W LED	BORDEN LTG 718	ELECTRONIC	WALL	15	APARTMENT EXTERIOR PATIOS
X1		LED EXIT SIGN, SINGLE OR DOUBLE SIDED, UNIVERSAL MOUNT, RED LETTERING, WHITE HOUSING	(1) 2W LED	MAXILUME ELX-605-R-W-W	BATTERY	WALL/CEILING	2	UNIVERSAL KNOCK-OUTS FOR DIRECTIONAL MARKERS. BACKUP BATTERY BALLAST PROVIDES SECONDARY POWER SOURCE

UNIT LIGHTING "G": GREENPOINT RATED -HIGH EFFICACY LIGHTING FOR ALL IN UNIT LIGHTING.
ALL FIXTURES MUST BE SUBMITTED WITH JA-8 APPROVAL BY TITLE 24 AS COMPLIANT TO BE CONSIDERED HIGH EFFICACY.

EXTERIOR LIGHTING FIXTURES TO BE SPEC'D WITH BUG RATINGS WHERE REQUIRED.

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EMERALD CITY ENGINEERS, INC
21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LUMINAIRE SCHEDULE

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E0.01

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SITE LIGHTING
SCALE: 1" = 20'

FLAG NOTES
1 ALL EXTERIOR LIGHTING TO BE CONTROLLED BY A PHOTOCELL.
2 NOT USED.

SHEET NOTES
1. EXTERIOR EGRESS LIGHTING TO BE POWERED FROM LIGHTING INVERTER.
2. POLE LIGHTS TO BE FULL CUTOFF AND HAVE BUG RATING SPECIFIED WITH CEC AND CAL-GREEN REQUIREMENTS.

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
SITE LIGHTING

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E1.00

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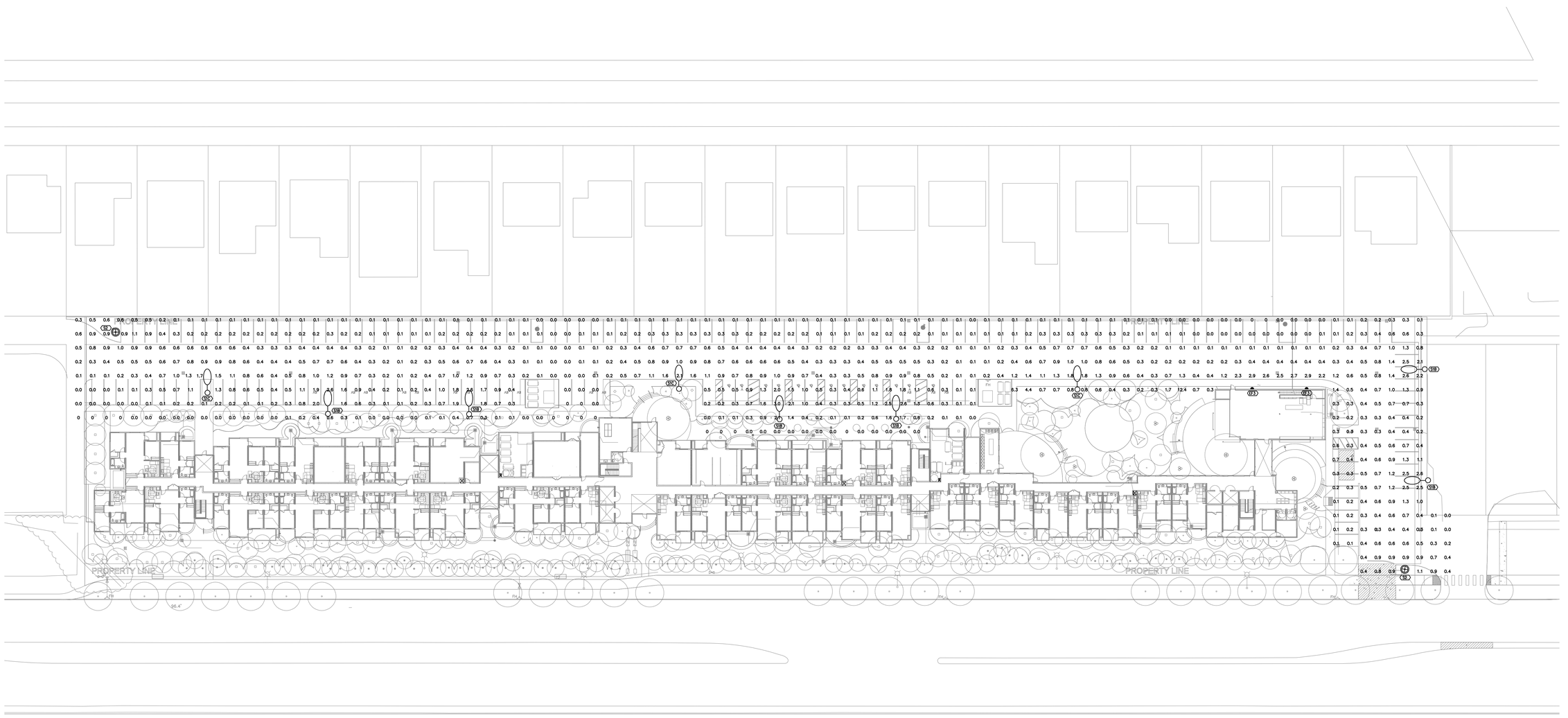

SITE PHOTOMETRICS

SCALE: 1" = 20'

General Photometric Schedule	
AVERAGE FOOT-CANDLES	0.5
MAXIMUM FOOT-CANDLES	12.4
MINIMUM FOOT-CANDLES	0
MINIMUM TO MAXIMUM FC RATIO	0
MAXIMUM TO MINIMUM FC RATIO	6601.15
AVERAGE TO MINIMUM FC RATIO	264.58

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2> NOT USED.

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
SITE PHOTOMETRICS

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E1.01

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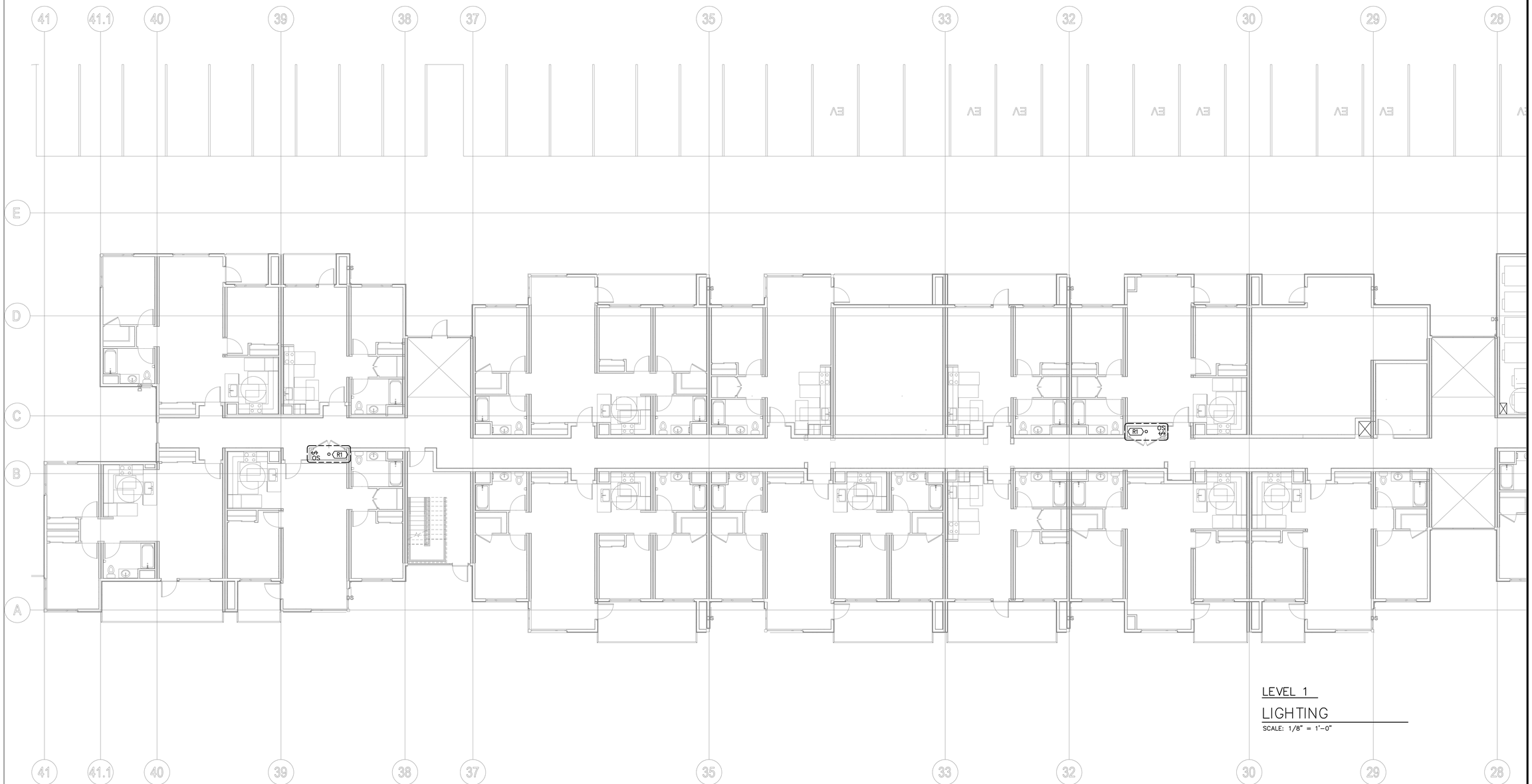

LEVEL 1

LIGHTING

SCALE: 1/8" = 1'-0"

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2 AUTOMATIC DAYLIGHT ZONE. TOTAL LIGHTING WITHIN ZONE IS LESS THAN 120 WATTS. PHOTOCELL CONTROL IS NOT REQUIRED PER CEC EXCEPTION 1 TO SECTION 130.1(d)2.	2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
3 NETWORK RACK, ROUTE ALL DATA/TV CABLES FROM AMENITY SPACE AND OFFICE TO THIS ROOM. ROUTE (12) CAT6 CABLES, (2) COAX CABLES. PROVIDE 19" RACK WITH 3 LEVELS FOR EQUIPMENT. LOCATE SERVER EQUIPMENT, CCTV HEADEND/DVR EQUIPMENT, CARD READER EQUIPMENT, AND WIFI EQUIPMENT. REFER TO LOW VOLTAGE MATRIX DETAIL FOR DETAILS.	3. REFER TO PLUMBING PLANS FOR SPECIFIC LOCATIONS OF ALL PUMPS.
4 AUTOMATIC DAYLIGHT ZONE CONTROL REQUIRED (CONTROLLED BY PHOTOCELL). FIXTURES WITHIN ZONE TO BE AUTOMATICALLY DIMMED TO 20% OUTPUT WHEN DAYLIGHT IS PRESENT.	4. STAIRWELL FIXTURE F2 EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACKUP.
5 "CONTROLLED RECEPTACLE" TO BE CONTROLLED BY OCCUPANCY SENSOR (REFER TO LIGHTING PLANS FOR SENSORS). PROVIDE DEVICE WITH PERMANENT MARKING.	5. CORRIDOR OCCUPANCY SENSOR: DIM FIXTURES TO 50% WHEN UNOCCUPIED.
	LOW VOLTAGE SYSTEMS SHEET LEGEND:
	(A) INTRUSION DETECTION (DOOR OR WINDOW)
	(B) DOOR DETECTOR BUZZER IF PROPPED OPEN
	(C) EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN
	CR KEY CARD READER ACCESS FOB
	CCTV SECURITY CAMERA

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - SECTION A
LIGHTING

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.01A

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LEVEL 1

LIGHTING

SCALE: 1/8" = 1'-0"

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
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	CR KEY CARD READER ACCESS FOB
	CCTV SECURITY CAMERA

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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FREIMOOR
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - SECTION B
LIGHTING

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.01B

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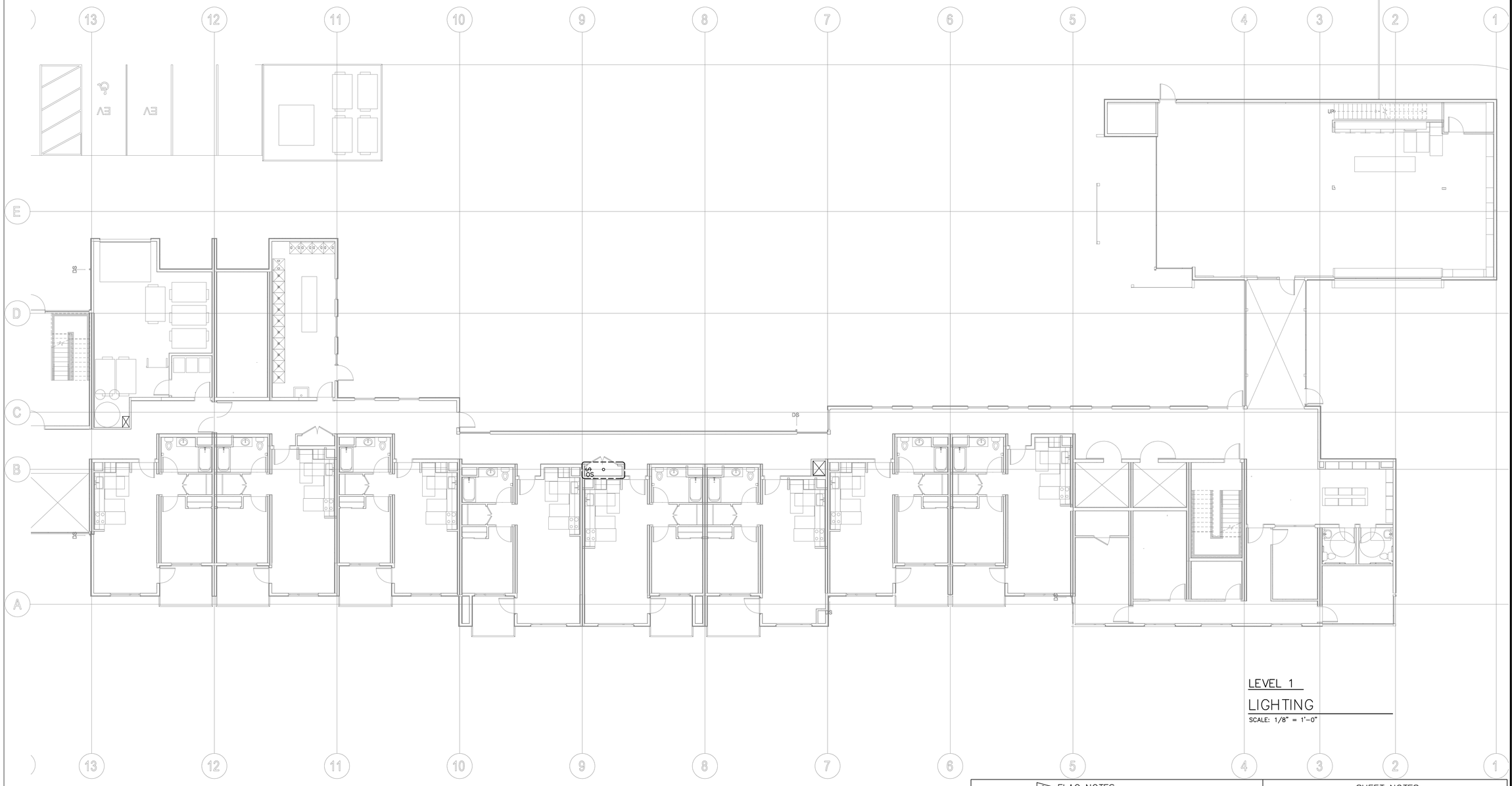

LEVEL 1

LIGHTING

SCALE: 1/8" = 1'-0"

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
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	CCTV SECURITY CAMERA

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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - SECTION C
LIGHTING

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.01C

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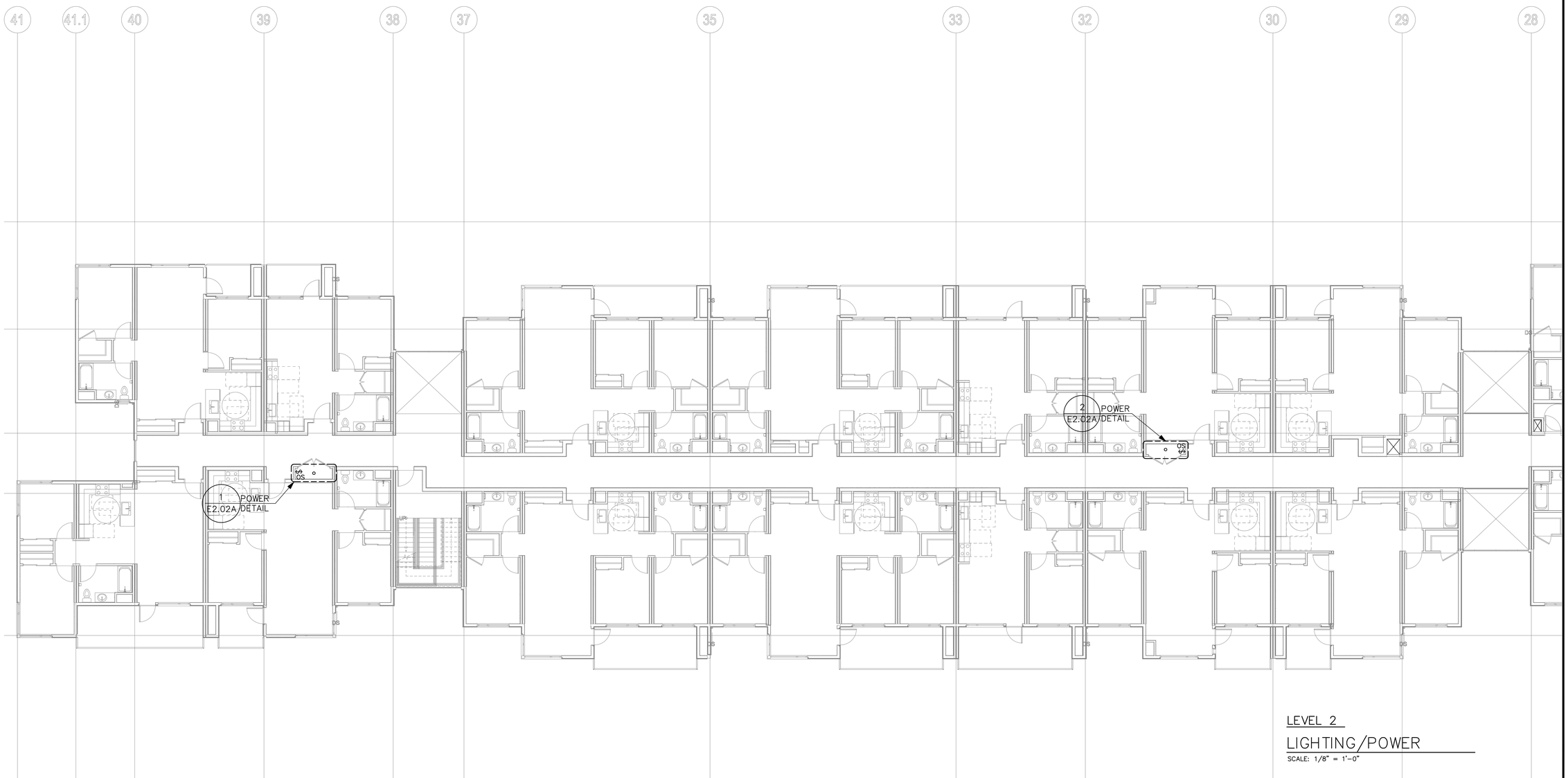
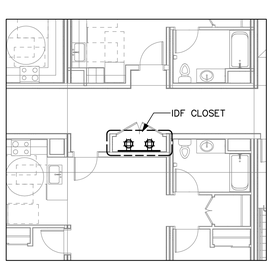


LEVEL 2

LIGHTING/POWER

SCALE: 1/8" = 1'-0"



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

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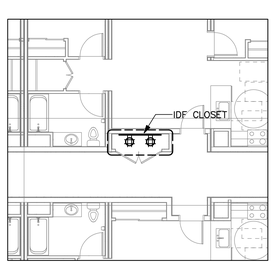

IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

2 E2.02A

FLAG NOTES:	SHEET NOTES:
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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 02 - FLOOR PLAN - SECTION A LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.02A

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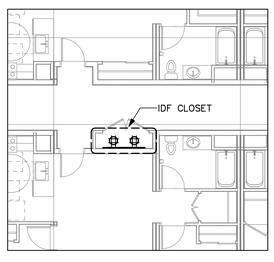
LEVEL 2

LIGHTING/POWER

SCALE: 1/8" = 1'-0"



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1
E2.02B

FLAG NOTES:

1. MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.
2. AUTOMATIC DAYLIGHT ZONE. TOTAL LIGHTING WITHIN ZONE IS LESS THAN 120 WATTS. PHOTOCELL CONTROL IS NOT REQUIRED PER CEC EXCEPTION 1 TO SECTION 130.1(d)2.
3. NETWORK RACK, ROUTE ALL DATA/TV CABLES FROM AMENITY SPACE AND OFFICE TO THIS ROOM. ROUTE (12) CAT6 CABLES, (2) COAX CABLES. PROVIDE 19" RACK WITH 3 LEVELS FOR EQUIPMENT. LOCATE SERVER EQUIPMENT, CCTV HEADEND/DVR EQUIPMENT, CARD READER EQUIPMENT, AND WIFI EQUIPMENT. REFER TO LOW VOLTAGE MATRIX DETAIL FOR DETAILS.
4. AUTOMATIC DAYLIGHT ZONE CONTROL REQUIRED (CONTROLLED BY PHOTOCELL). FIXTURES WITHIN ZONE TO BE AUTOMATICALLY DIMMED TO 20% OUTPUT WHEN DAYLIGHT IS PRESENT.
5. "CONTROLLED RECEPTACLE" TO BE CONTROLLED BY OCCUPANCY SENSOR (REFER TO LIGHTING PLANS FOR SENSORS). PROVIDE DEVICE WITH PERMANENT MARKING.

SHEET NOTES:

1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
3. REFER TO PLUMBING PLANS FOR SPECIFIC LOCATIONS OF ALL PUMPS.
4. STAIRWELL FIXTURE F2 EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACKUP.
5. CORRIDOR OCCUPANCY SENSOR: DIM FIXTURES TO 50% WHEN UNOCCUPIED.

LOW VOLTAGE SYSTEMS SHEET LEGEND:

- (A) INTRUSION DETECTION (DOOR OR WINDOW)
- (B) DOOR DETECTOR BUZZER IF PROPPED OPEN
- (C) EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN
- CR KEY CARD READER ACCESS FOB
- CCTV SECURITY CAMERA

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EMERALD CITY ENGINEERS, INC
21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FREMON
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 02 - FLOOR PLAN - SECTION B
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.02B

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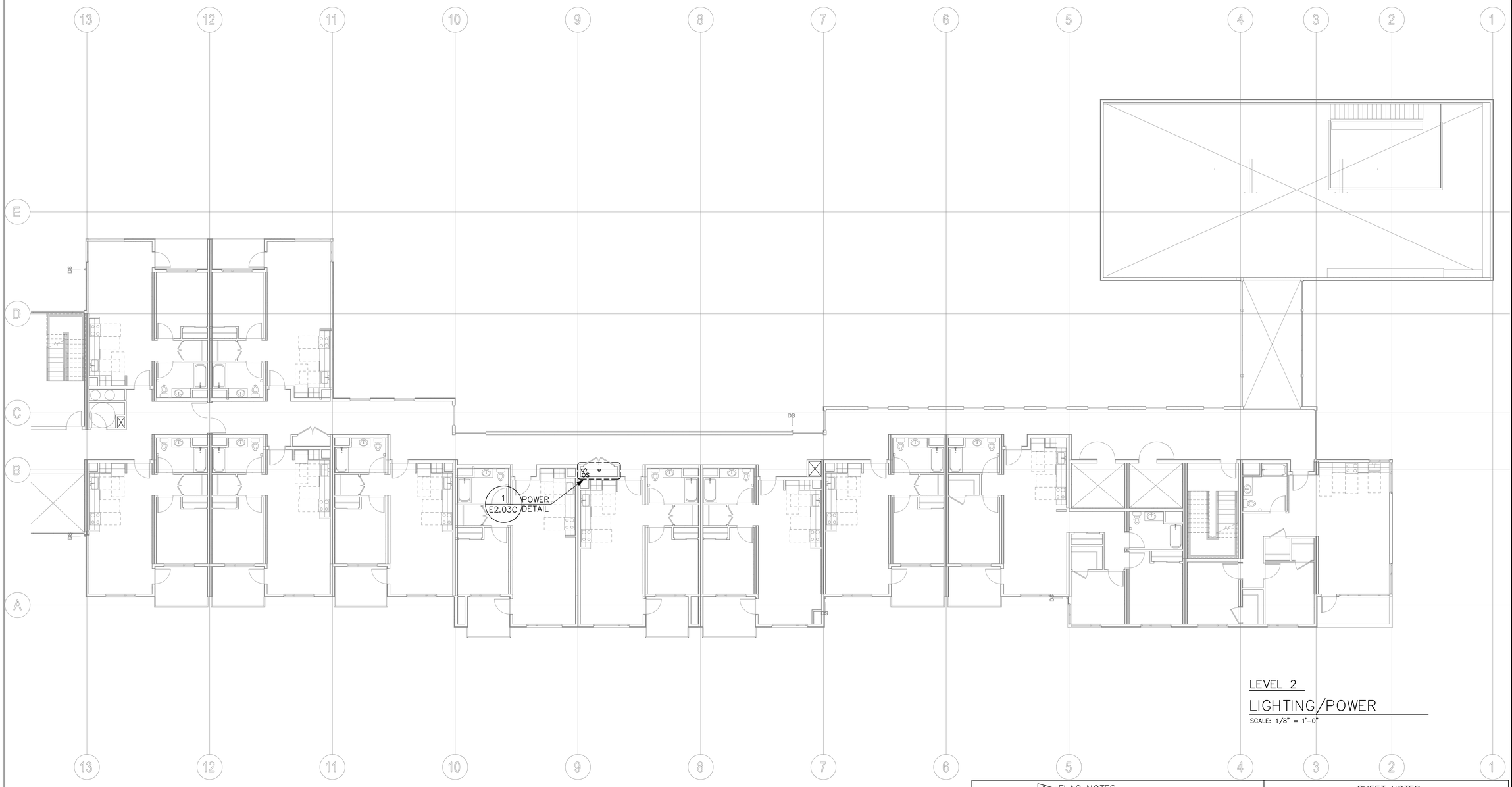

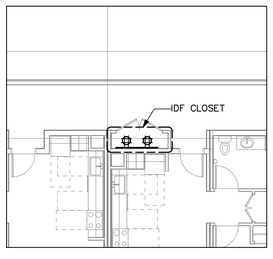

IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1
E2.02C

LEVEL 2

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2 AUTOMATIC DAYLIGHT ZONE. TOTAL LIGHTING WITHIN ZONE IS LESS THAN 120 WATTS. PHOTOCELL CONTROL IS NOT REQUIRED PER CEC EXCEPTION 1 TO SECTION 130.1(d)2.	2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
3 NETWORK RACK, ROUTE ALL DATA/TV CABLES FROM AMENITY SPACE AND OFFICE TO THIS ROOM. ROUTE (12) CAT6 CABLES, (2) COAX CABLES. PROVIDE 19" RACK WITH 3 LEVELS FOR EQUIPMENT. LOCATE SERVER EQUIPMENT, CCTV HEADEND/DVR EQUIPMENT, CARD READER EQUIPMENT, AND WIFI EQUIPMENT. REFER TO LOW VOLTAGE MATRIX DETAIL FOR DETAILS.	3. REFER TO PLUMBING PLANS FOR SPECIFIC LOCATIONS OF ALL PUMPS.
4 AUTOMATIC DAYLIGHT ZONE CONTROL REQUIRED (CONTROLLED BY PHOTOCELL). FIXTURES WITHIN ZONE TO BE AUTOMATICALLY DIMMED TO 20% OUTPUT WHEN DAYLIGHT IS PRESENT.	4. STAIRWELL FIXTURE F2 EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACKUP.
5 "CONTROLLED RECEPTACLE" TO BE CONTROLLED BY OCCUPANCY SENSOR (REFER TO LIGHTING PLANS FOR SENSORS). PROVIDE DEVICE WITH PERMANENT MARKING.	5. CORRIDOR OCCUPANCY SENSOR: DIM FIXTURES TO 50% WHEN UNOCCUPIED.
	LOW VOLTAGE SYSTEMS SHEET LEGEND:
	(A) INTRUSION DETECTION (DOOR OR WINDOW)
	(B) DOOR DETECTOR BUZZER IF PROPPED OPEN
	(C) EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN
	CR KEY CARD READER ACCESS FOB
	CCTV SECURITY CAMERA

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21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 02 - FLOOR PLAN - SECTION C
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.02C

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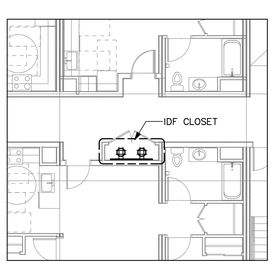
LEVEL 3

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

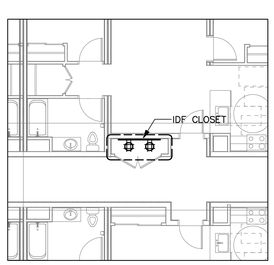


IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1 E2.03A



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

2 E2.03A

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
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4 AUTOMATIC DAYLIGHT ZONE CONTROL REQUIRED (CONTROLLED BY PHOTOCELL). FIXTURES WITHIN ZONE TO BE AUTOMATICALLY DIMMED TO 20% OUTPUT WHEN DAYLIGHT IS PRESENT.	4. STAIRWELL FIXTURE F2 EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACKUP.
5 "CONTROLLED RECEPTACLE" TO BE CONTROLLED BY OCCUPANCY SENSOR (REFER TO LIGHTING PLANS FOR SENSORS). PROVIDE DEVICE WITH PERMANENT MARKING.	5. CORRIDOR OCCUPANCY SENSOR: DIM FIXTURES TO 50% WHEN UNOCCUPIED.
	LOW VOLTAGE SYSTEMS SHEET LEGEND:
	(A) INTRUSION DETECTION (DOOR OR WINDOW)
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	(C) EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN
	CR KEY CARD READER ACCESS FOB
	CCTV SECURITY CAMERA

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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 03 - FLOOR PLAN - SECTION A
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.03A

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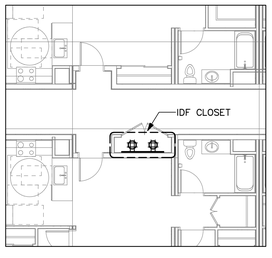
LEVEL 3

LIGHTING/POWER

SCALE: 1/8" = 1'-0"



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1
E2.03B

FLAG NOTES:	SHEET NOTES:
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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FREMON
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 03 - FLOOR PLAN - SECTION B
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.03B

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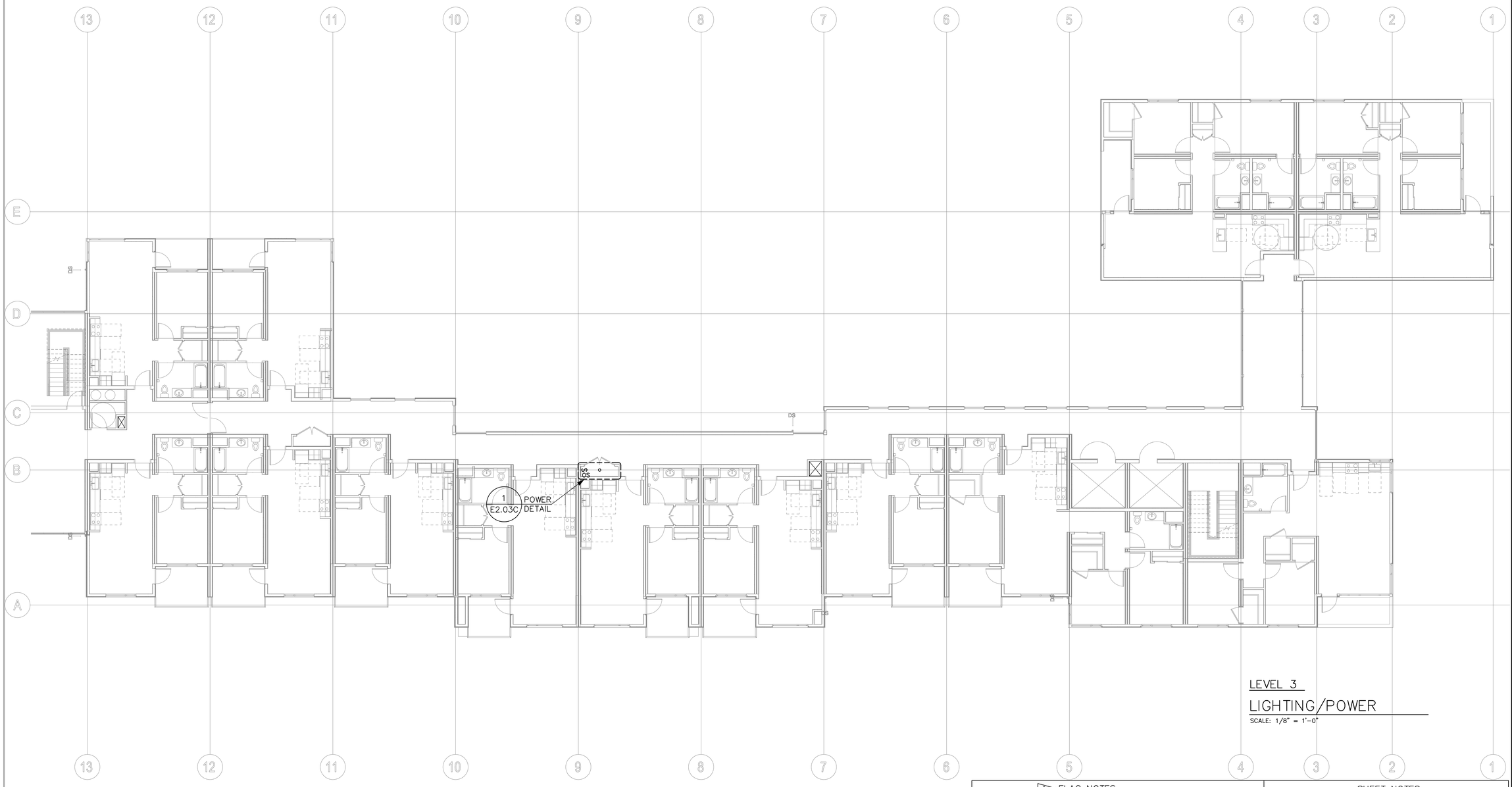
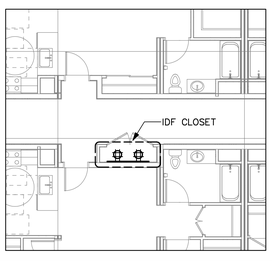


LEVEL 3

LIGHTING/POWER

SCALE: 1/8" = 1'-0"



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1 E2.03C

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
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	LOW VOLTAGE SYSTEMS SHEET LEGEND:
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	CCTV SECURITY CAMERA

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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 03 - FLOOR PLAN - SECTION C
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.03C

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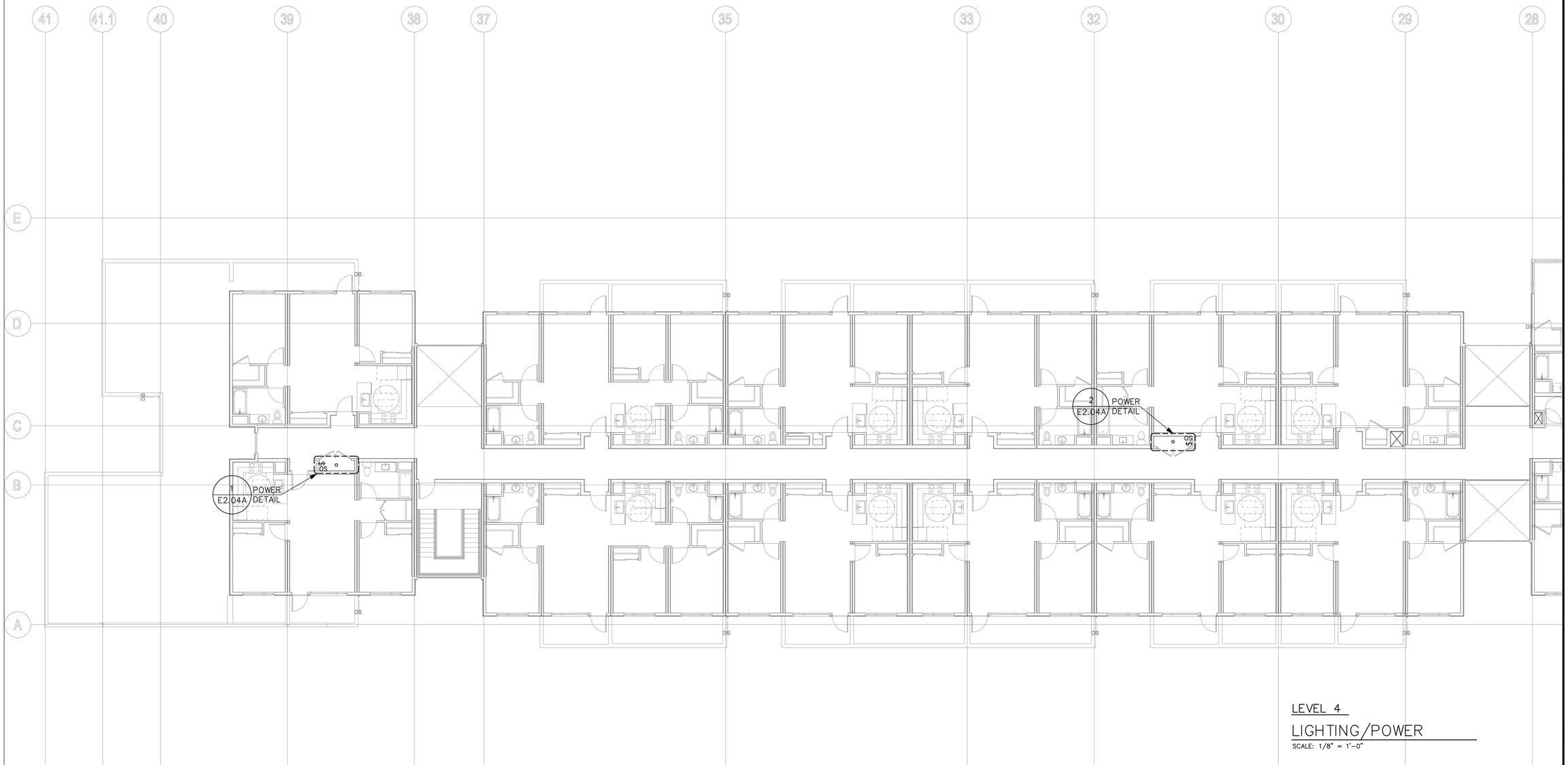
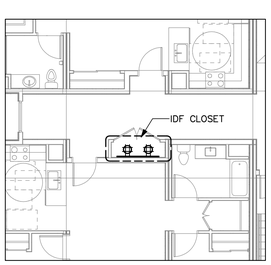


LEVEL 4

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

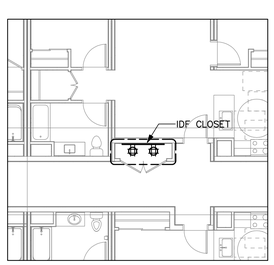


IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1 / E2.04A



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

2 / E2.04A

FLAG NOTES:

1. MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.
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SHEET NOTES:

1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
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LOW VOLTAGE SYSTEMS SHEET LEGEND:

- (A) INTRUSION DETECTION (DOOR OR WINDOW)
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- CR KEY CARD READER ACCESS FOB
- CCTV SECURITY CAMERA

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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 04- FLOOR PLAN - SECTION A LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.04A

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LEVEL 4

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

# FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2 AUTOMATIC DAYLIGHT ZONE. TOTAL LIGHTING WITHIN ZONE IS LESS THAN 120 WATTS. PHOTOCELL CONTROL IS NOT REQUIRED PER CEC EXCEPTION 1 TO SECTION 130.1(d)2.	2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
3 NETWORK RACK, ROUTE ALL DATA/TV CABLES FROM AMENITY SPACE AND OFFICE TO THIS ROOM. ROUTE (12) CAT6 CABLES, (2) COAX CABLES. PROVIDE 19" RACK WITH 3 LEVELS FOR EQUIPMENT. LOCATE SERVER EQUIPMENT, CCTV HEADEND/DVR EQUIPMENT, CARD READER EQUIPMENT, AND WIFI EQUIPMENT. REFER TO LOW VOLTAGE MATRIX DETAIL FOR DETAILS.	3. REFER TO PLUMBING PLANS FOR SPECIFIC LOCATIONS OF ALL PUMPS.
4 AUTOMATIC DAYLIGHT ZONE CONTROL REQUIRED (CONTROLLED BY PHOTOCELL). FIXTURES WITHIN ZONE TO BE AUTOMATICALLY DIMMED TO 20% OUTPUT WHEN DAYLIGHT IS PRESENT.	4. STAIRWELL FIXTURE F2 EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACKUP.
5 "CONTROLLED RECEPTACLE" TO BE CONTROLLED BY OCCUPANCY SENSOR (REFER TO LIGHTING PLANS FOR SENSORS). PROVIDE DEVICE WITH PERMANENT MARKING.	5. CORRIDOR OCCUPANCY SENSOR: DIM FIXTURES TO 50% WHEN UNOCCUPIED.
	LOW VOLTAGE SYSTEMS SHEET LEGEND:
	(A) INTRUSION DETECTION (DOOR OR WINDOW)
	(B) DOOR DETECTOR BUZZER IF PROPPED OPEN
	(C) EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN
	CR KEY CARD READER ACCESS FOB
	CCTV SECURITY CAMERA

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 04 - FLOOR PLAN - SECTION B
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.04B

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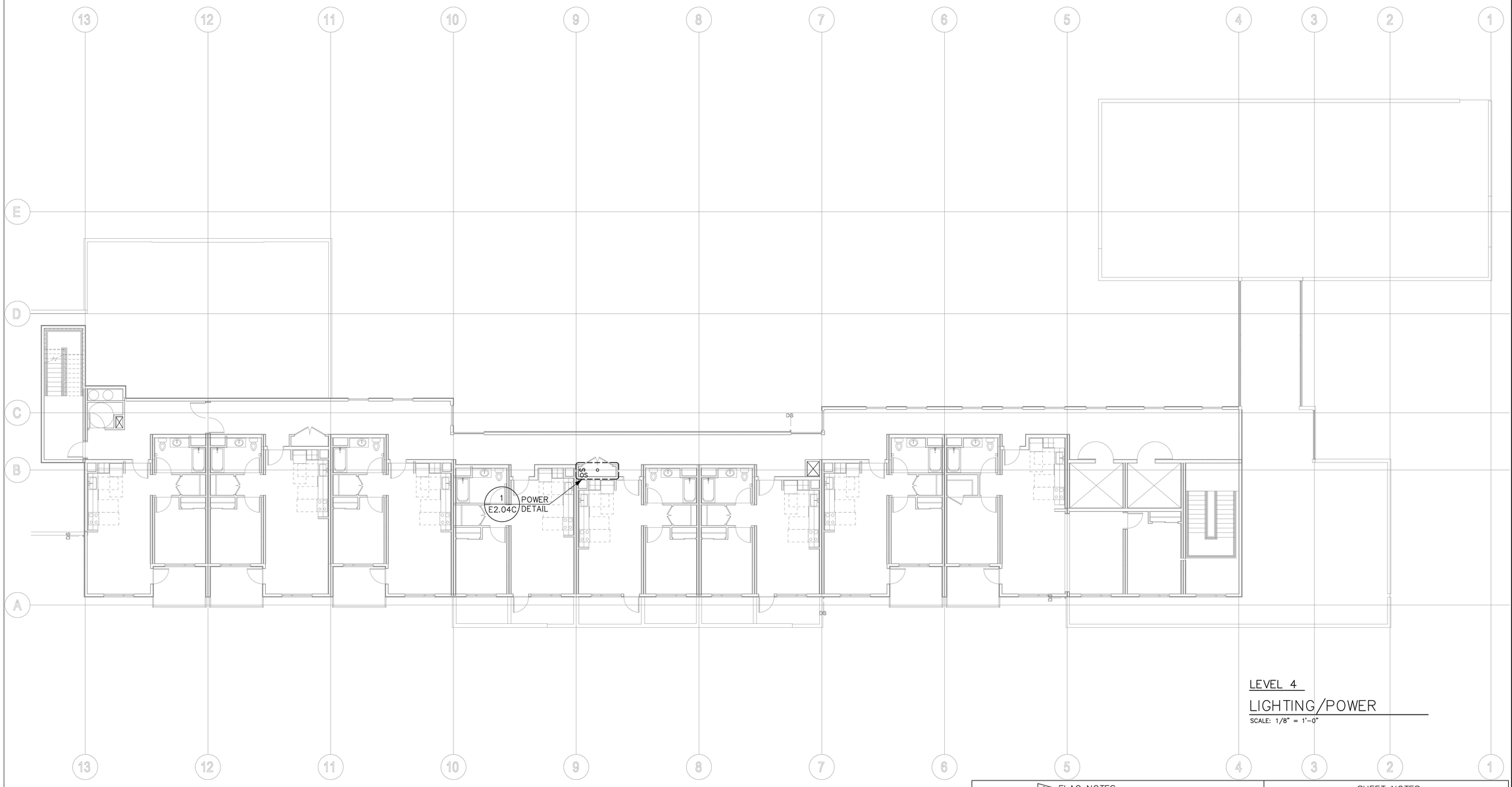
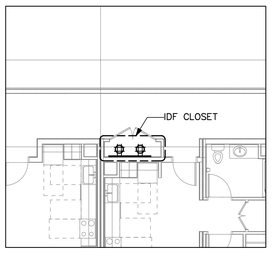


LEVEL 4

LIGHTING/POWER

SCALE: 1/8" = 1'-0"



IDF CLOSET

POWER DETAIL

SCALE: 1/8" = 1'-0"

1 / E2.04C

FLAG NOTES:	SHEET NOTES:
1 MULTI-LEVEL SWITCHING NOT REQUIRED. LIGHTING POWER ALLOWANCE LESS THAN 0.5W/SF, ROOM LESS THAN 100SF, OR ONLY 1 LIGHT WITH 2 OR LESS LAMPS.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2 AUTOMATIC DAYLIGHT ZONE. TOTAL LIGHTING WITHIN ZONE IS LESS THAN 120 WATTS. PHOTOCELL CONTROL IS NOT REQUIRED PER CEC EXCEPTION 1 TO SECTION 130.1(d)2.	2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 04 - FLOOR PLAN - SECTION C
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.04C

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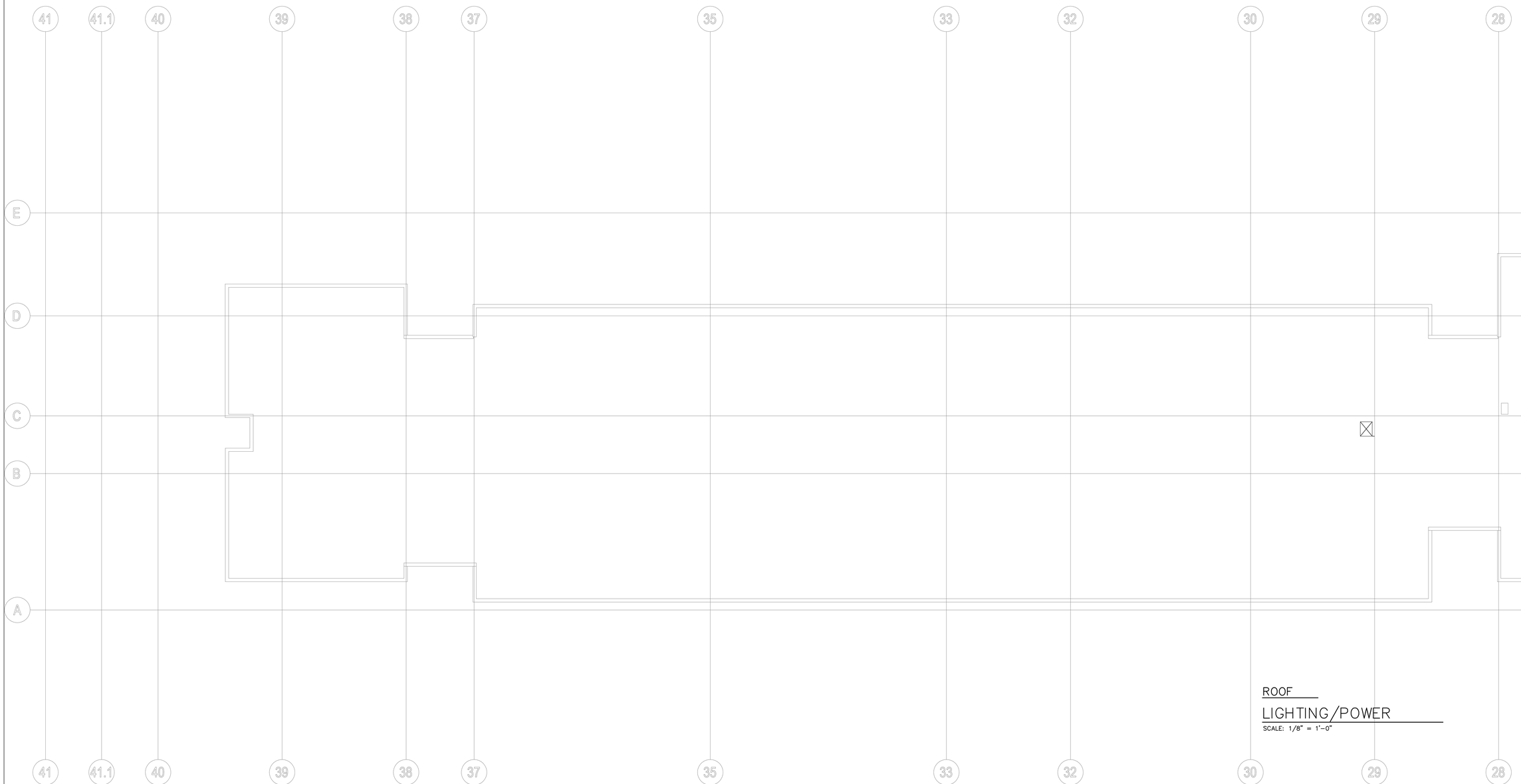

ROOF

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

FLAG NOTES:	SHEET NOTES:
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PROJECT:
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LOCATION:
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MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
ROOF PLAN
SECTION A
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.05A

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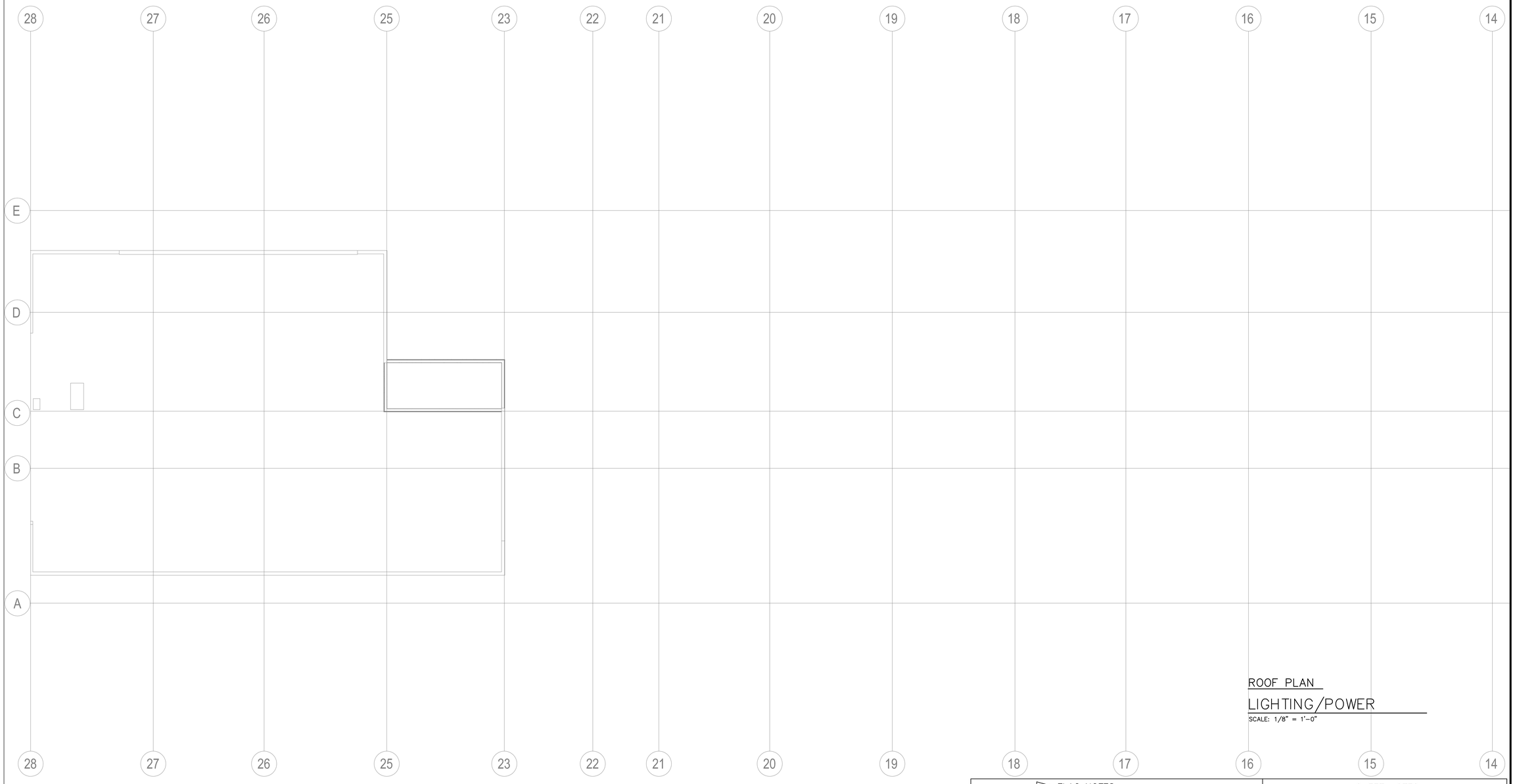

ROOF PLAN

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
ROOF PLAN
SECTION B
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
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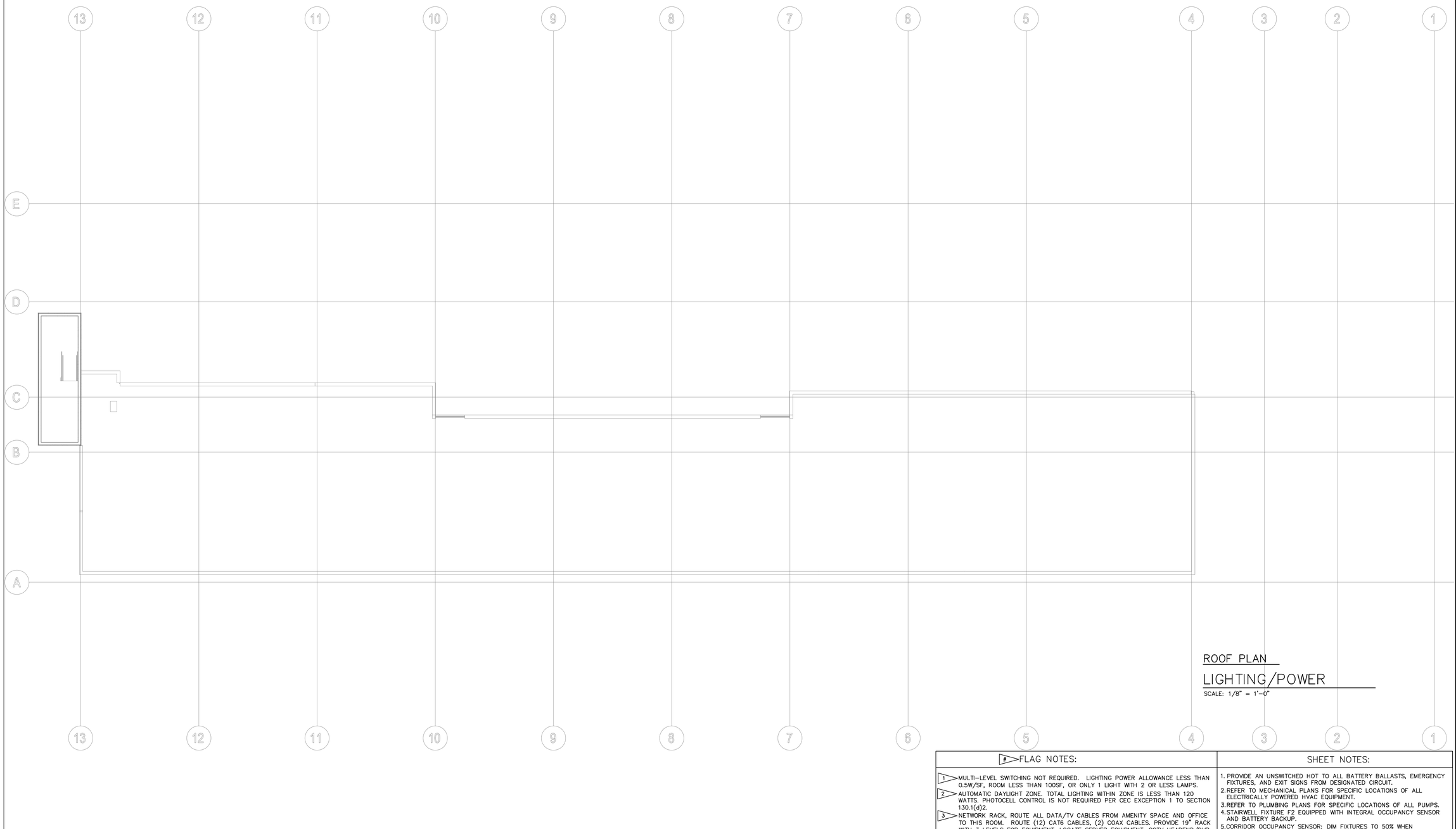

ROOF PLAN

LIGHTING/POWER

SCALE: 1/8" = 1'-0"

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Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
ROOF PLAN
SECTION C
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E2.05C

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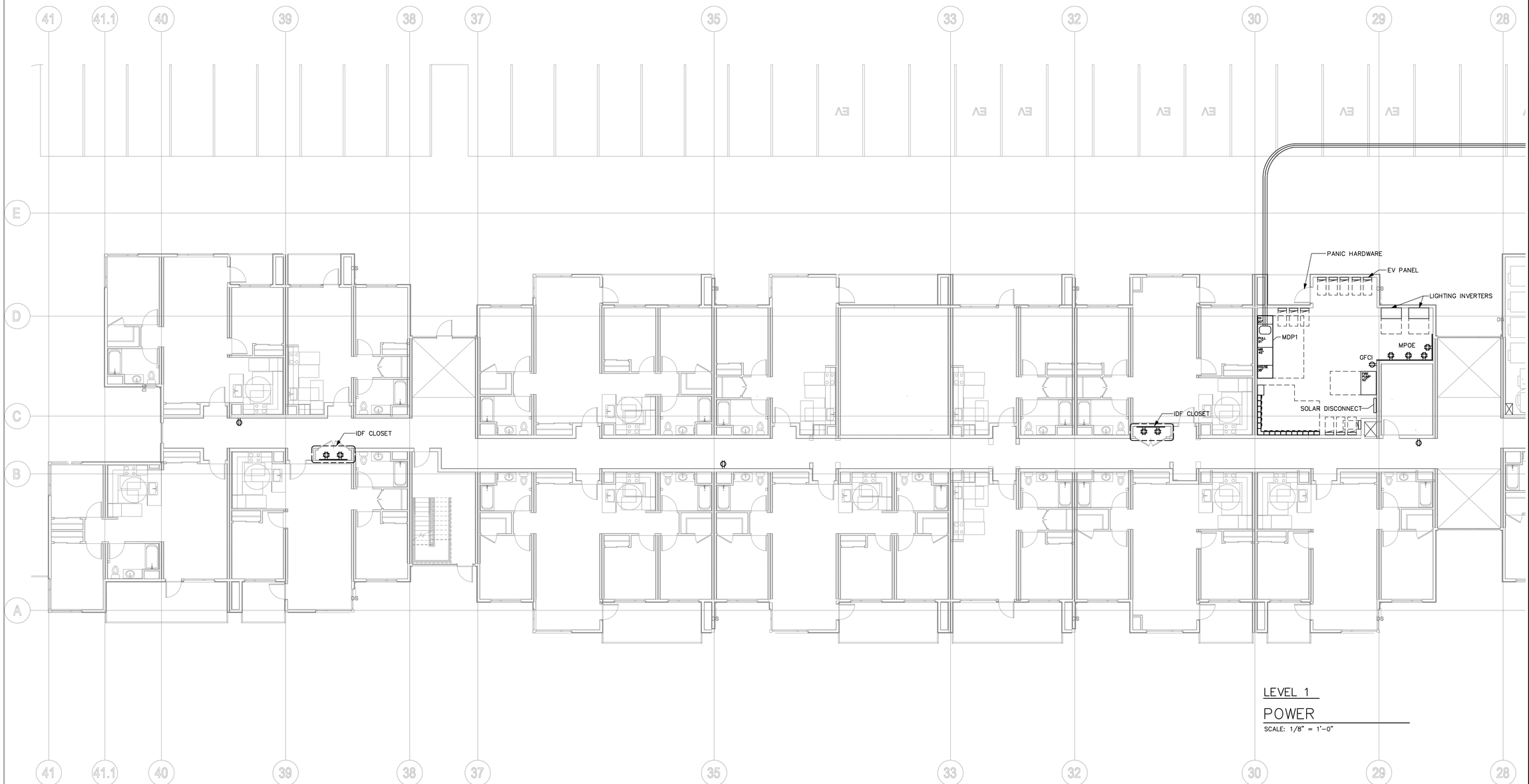

LEVEL 1

POWER

SCALE: 1/8" = 1'-0"

FLAG NOTES:

1. CONTRACTOR TO CONFIRM REQUIREMENTS OF ALL POWER EQUIPMENT PRIOR TO INSTALLATION.
2. TO PG&E TRANSFORMER. REFER TO JOINT TRENCH PLANS FOR DETAILS.
3. NETWORK RACK, ROUTE ALL DATA/TV CABLES FROM AMENITY SPACE AND OFFICE TO THIS ROOM. ROUTE (12) CAT6 CABLES, (2) COAX CABLES. PROVIDE 19" RACK WITH 3 LEVELS FOR EQUIPMENT. LOCATE SERVER EQUIPMENT, CCTV HEADEND/DVR EQUIPMENT, CARD READER EQUIPMENT, AND WIFI EQUIPMENT. REFER TO LOW VOLTAGE MATRIX DETAIL FOR DETAILS.
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5. PG&E SMART METER ANTENNA LOCATION, ROUTE (1) 2" CONDUIT FROM MAIN ELECTRICAL ROOM AS SHOWN, MINIMUM 6"x6"x6" NEMA 3R RATED ENCLOSURE BOX WITH ACCESSIBLE FRONT COVER. PROVIDE CONDUIT CAP AT INTERIOR OF ROOM.

SHEET NOTES:

1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
3. REFER TO PLUMBING PLANS FOR SPECIFIC LOCATIONS OF ALL PUMPS.
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- CR KEY CARD READER ACCESS FOB
- CCTV SECURITY CAMERA

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - SECTION A
POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E3.01A

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LEVEL 1

POWER

SCALE: 1/8" = 1'-0"

FLAG NOTES:

1. CONTRACTOR TO CONFIRM REQUIREMENTS OF ALL POWER EQUIPMENT PRIOR TO INSTALLATION.
2. TO PG&E TRANSFORMER. REFER TO JOINT TRENCH PLANS FOR DETAILS.
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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
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PREPARED FOR:
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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - SECTION B
POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E3.01B

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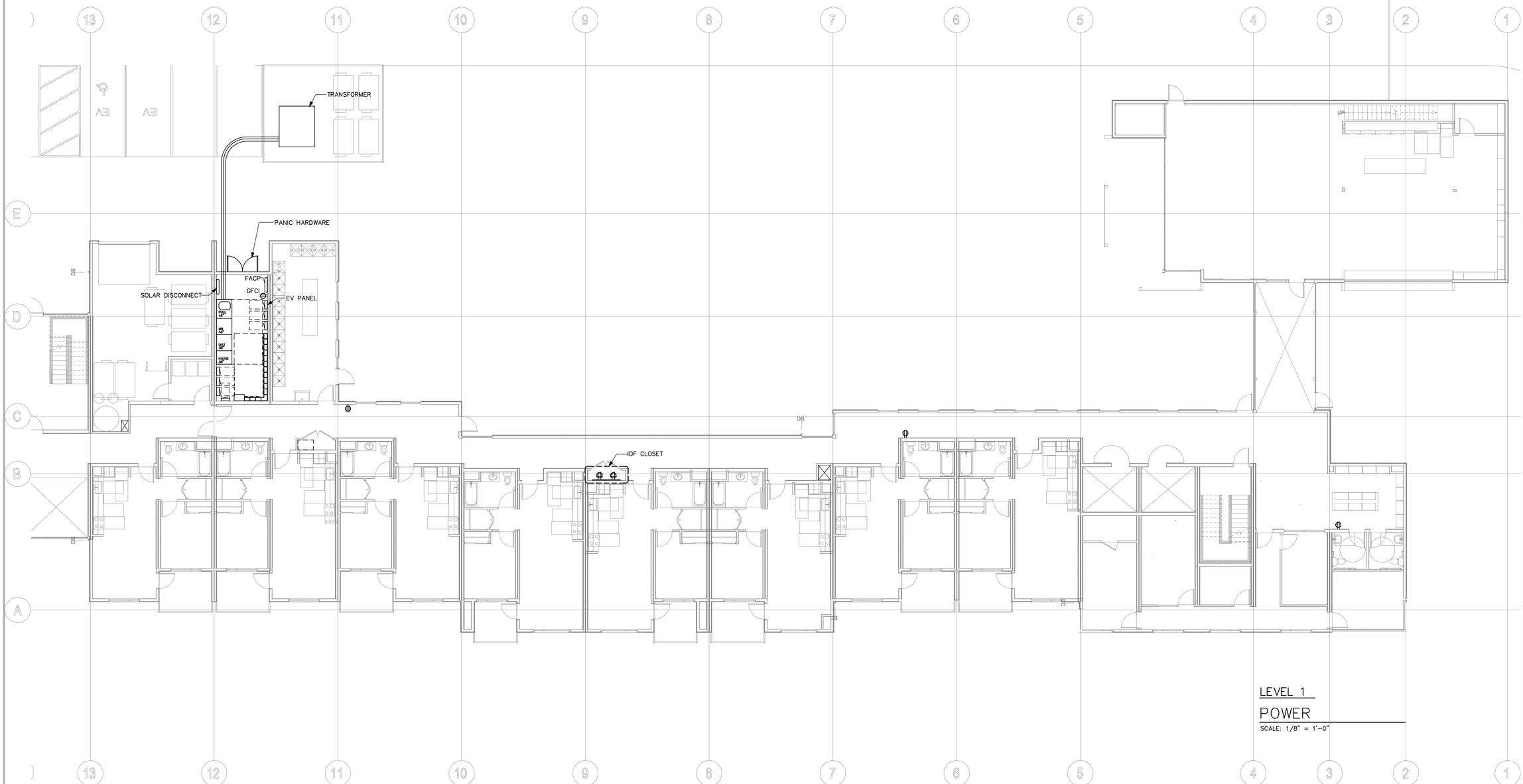

LEVEL 1

POWER

SCALE: 1/8" = 1'-0"

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1 CONTRACTOR TO CONFIRM REQUIREMENTS OF ALL POWER EQUIPMENT PRIOR TO INSTALLATION.	1. PROVIDE AN UNSWITCHED HOT TO ALL BATTERY BALLASTS, EMERGENCY FIXTURES, AND EXIT SIGNS FROM DESIGNATED CIRCUIT.
2 TO PG&E TRANSFORMER. REFER TO JOINT TRENCH PLANS FOR DETAILS.	2. REFER TO MECHANICAL PLANS FOR SPECIFIC LOCATIONS OF ALL ELECTRICALLY POWERED HVAC EQUIPMENT.
3 NETWORK RACK, ROUTE ALL DATA/TV CABLES FROM AMENITY SPACE AND OFFICE TO THIS ROOM. ROUTE (12) CAT6 CABLES, (2) COAX CABLES. PROVIDE 19" RACK WITH 3 LEVELS FOR EQUIPMENT. LOCATE SERVER EQUIPMENT, CCTV HEADEND/DVR EQUIPMENT, CARD READER EQUIPMENT, AND WIFI EQUIPMENT. REFER TO LOW VOLTAGE MATRIX DETAIL FOR DETAILS.	3. REFER TO PLUMBING PLANS FOR SPECIFIC LOCATIONS OF ALL PUMPS.
4 "CONTROLLED RECEPTACLE" TO BE CONTROLLED BY OCCUPANCY SENSOR (REFER TO LIGHTING PLANS FOR SENSORS). FOR QUADS, ONLY TWO (2) PLUGS ARE TO BE CONTROLLED IN THIS MANNER. PROVIDE DEVICE WITH PERMANENT MARKING.	4. STAIRWELL FIXTURE F2 EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACKUP.
5 PG&E SMART METER ANTENNA LOCATION, ROUTE (1) 2" CONDUIT FROM MAIN ELECTRICAL ROOM AS SHOWN, MINIMUM 6"x6"x6" NEMA 3R RATED ENCLOSURE BOX WITH ACCESSIBLE FRONT COVER. PROVIDE CONDUIT CAP AT INTERIOR OF ROOM.	LOW VOLTAGE SYSTEMS SHEET LEGEND: (A) INTRUSION DETECTION (DOOR OR WINDOW) (B) DOOR DETECTOR BUZZER IF PROPPED OPEN (C) EMERGENCY EXIT ONLY, DOOR TO HAVE SOUNDER WHEN OPEN CR KEY CARD READER ACCESS FOB CCTV SECURITY CAMERA

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRANCIS
E19421
EXP. 3-31-19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
LEVEL 01 - FLOOR PLAN - SECTION C
POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E3.01C

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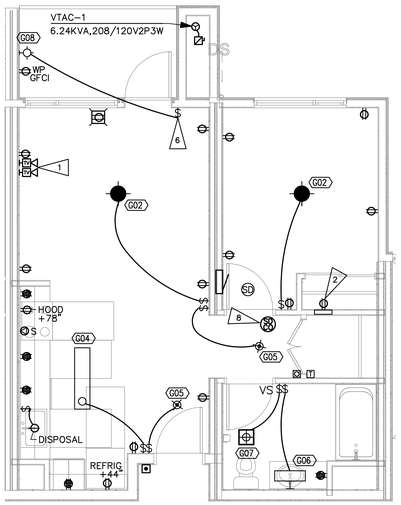
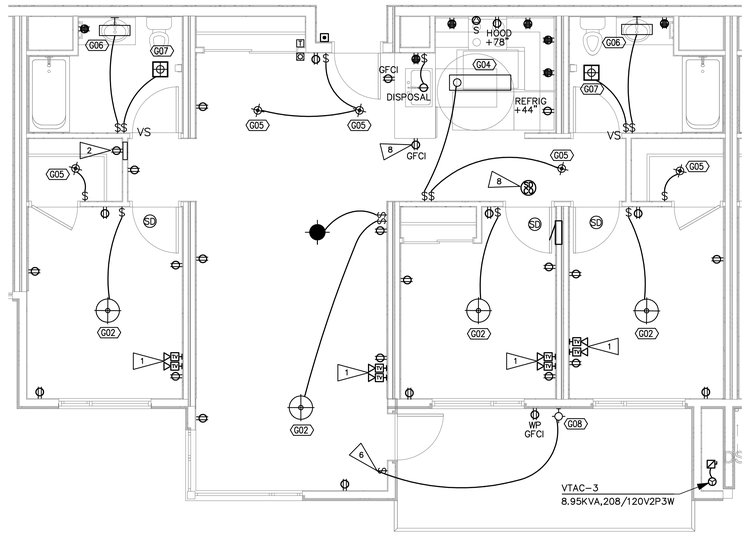


1–BEDROOM UNIT – VTAK

LIGHTING/POWER

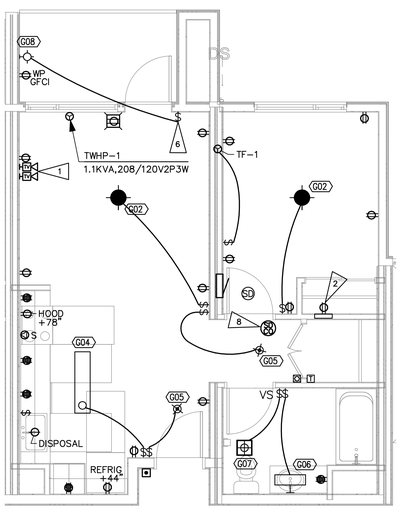
SCALE: 1/4" = 1'–0"



3–BEDROOM UNIT – VTAK

LIGHTING/POWER

SCALE: 1/4" = 1'–0"



1–BEDROOM UNIT – PTAC

LIGHTING/POWER

SCALE: 1/4" = 1'–0"

LEGEND:

- DOORBELL PUSH–BUTTON
- DOORBELL TRANSFORMER
- DOORBELL CHIME
- FIRE ALARM STROBE
- FIRE ALARM MINI–HORN

DOORBELL SCHEDULE:

DOORBELL PUSH–BUTTON:
MODEL: NUTONE #PB41BGL
MOUNTING: +48" TO TOP

DOORBELL TRANSFORMER:
MODEL: NUTONE #C905
MOUNTING: LOCATED IN CLOSET

DOORBELL CHIME:
MODEL: NUTONE #LA11WH
MOUNTING: +80" TO BOTTOM

COMMUNICATION UNITS –
- DOORBELL & STROBE: EDWARDS 6536–G5
- TRANSFORMER: EDWARDS 592
- PUSHBUTTON: EDWARDS 620/147–10
- (147–10 NAMEPLATE: "HOLD BUTTON FOR 5 SECONDS")
- DISABLE SWITCH TO DEACTIVATE VISIBLE DOORBELL SIGNALS TO BE PROVIDED IN CLOSET.

FLAG NOTES:

1. SPECIALTY OUTLET WITH:
   - (2) CAT6
   - (2) COAX
   - PROVIDE DEDICATED HR'S TO SMART BOX WITHIN ROOM.
2. PROVIDE RECESSED SMART BOX WITH INTEGRAL DUPLEX RECEPTACLE. PROVIDE HOMERUNS TO NEAREST COMMUNICATIONS CLOSET. SEE E6.01 FOR DETAILS.
3. ACCESSIBLE ROOMS: LOCATE DISPOSAL SWITCH AT +44" TO TOP OF OUTLET BOX PER CBC 1142A.2.
4. DINING ROOM RECEPTACLE CIRCUITED TO KITCHEN CIRCUIT WITH AFCI PROTECTION.
5. ACCESSIBLE ROOMS: PROVIDE WALL SWITCH TO CONTROL HOOD. MOUNT AT +44" TO THE TOP OF THE DEVICE PER CBC 1142A.2.
6. PATIO LIGHT SWITCH TO BE ASTRONOMICAL TIMER BUILT INTO A SINGLE GANG JBOX (2016 T24 REQUIREMENT): LEVITON VPT24–1PZ. PROGRAM TO TURN ON/OFF AT SUNSET/SUNRISE.
7. COMBINATION SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR.
8. MOUNT WITHIN 12" OF COUNTERTOP SURFACE PER NEC 210.52(C)(5).

SHEET NOTES:

1. RESTROOM EXHAUST LIGHT/FAN – G07: PANASONIC WHISPERGREEN EXHAUST FAN CONTROLLED BY HUMIDISTAT. COORDINATE ALL WIRING WITH MECHANICAL. LIGHT CONTROLLED BY WALL SWITCH.
2. BATHROOM SINK. MOUNT RECEPTACLE AT +40" AFF, MOUNTED HORIZONTALLY. COORDINATE WITH ARCHITECTURAL.
3. BRANCH LIGHTING/RECEPTACLE CIRCUITS IN BEDROOMS AND LIVING ROOMS, PROVIDE #14 WIRE.
4. KITCHEN RECEPTACLES MOUNTED ABOVE THE COUNTER TO BE AT +44" AFF TO THE CENTER, MOUNTED HORIZONTALLY IN BACKSPLASH WITH BOX EXTENDERS.
5. SMOKE & COMBO SMOKE/CO DETECTORS IN UNITS, 120V WITH BATTERY BACKUP, INTERCONNECTED WITHIN UNIT FOR COMMON ALARM, PER CODE. LOCATE MINIMUM 6FT AWAY FROM STOVES, 3FT AWAY FROM BEDROOM DOORS (WHERE POSSIBLE), 36" AWAY FROM PADDLE FANS, 36" HORIZONTAL PATH FROM SUPPLY DIFFUSER.
6. ALL APARTMENT WIRING TO BE ELECTRICAL NON–METALLIC CABLE (ROMEX).
7. ALL UNITS:DOORBELL AND FIRE ALARM SYSTEM SHALL BE CAPABLE OF SUPPORTING VISUAL STROBE FOR DOORBELL & FIRE ALARM. COMMUNICATION UNITS: PROVIDE VISUAL STROBE FOR DOORBELL & FIRE ALARM. STROBES TO BE DISTINGUISHABLE FROM EACH OTHER.
8. AFCI PROTECTION: NEC 2014 REQUIRES THE MAXIMUM LENGTH OF BRANCH CIRCUIT WIRING FROM THE OVERCURRENT DEVICE TO THE FIRST OUTLET SHALL NOT EXCEED 50–FT FOR #14 AWG OR 70–FT FOR #12 AWG. THE FIRST OUTLET BOX IN THE BRANCH CIRCUIT SHALL BE MARKED TO INDICATE THAT IT IS THE FIRST OUTLET OF THE CIRCUIT "AFCI FIRST OUTLET".
9. TSF: FAN CONTROLLED BY WALL SWITCH. PROVIDE PERMANENT LABELS.
10. BATHROOM SWITCHING:
    $ = CONTROLS LIGHT IN FAN/LIGHT COMBO.
    $ = CONTROLS VANITY LIGHT. FAN HAS INTEGRAL OS TO RAMP TO HIGH SPEED.

MOBILITY UNITS:
- PROVIDE A HARD WIRED SWITCH FOR THE HOOD ON THE BACK WALL.
- KITCHEN COUNTER OUTLETS TO HAVE OUTLET BOX EXTENDERS.

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
ADAM C. FRENCH
E19421
EXP. 3–31–19
ELECTRICAL
STATE OF CALIFORNIA

TITLE
UNIT PLANS
LIGHTING/POWER

PROJECT NO.

DATE
8/13/2018

SHEET NUMBER
E4.00

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LEGEND

ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNIT PER HOUR
C	COMMON
CAP	CAPACITY
CC	COOLING COIL
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CLG	CEILING, COOLING
CO	CLEANOUT
COMB	COMBUSTION
CONT	CONTINUE, CONTROL
CONTR	CONTRACTOR
COP	COEFFICIENT OF PERFORMANCE
CRL	COMBINED RAIN LEADER
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
D	DIAMETER
DB	DRY BULB, DECIBEL
DEG	DEGREE
DIM	DIMENSION
DISCH	DISCHARGE
DN	DOWN
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
EG	ENGINE GENERATOR
ELEC	ELECTRIC
EQUIV	EQUIVALENT
EXH	EXHAUST
EXT	EXTERIOR, EXTERNAL
F	FAHRENHEIT
FCU	FAN COIL UNIT
FLR	FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
G	GAS
GAL	GALLONS
GPM	GALLONS PER MINUTE
GWB	GYPSUM WALLBOARD
HD	HEAD
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPU	HEAT PUMP UNIT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
ID	INDIRECT DRAIN, INSIDE DIAMETER
IN	INCH
KW	KILOWATT
L	LONG, LENGTH
LB	POUND
MBH	THOUSAND BTU PER HOUR
MECH	MECHANICAL
MCA	MINIMUM CIRCUIT AMPACITY
MOCP	MAXIMUM OVER CURRENT PROTECTION
MTD	MOUNTED
OD	OUTSIDE DIMENSION OR DIAMETER, OVERFLOW DRAIN
OL	OVERFLOW LEADER
OPNG	OPENING
P	PUMP
PD	PRESSURE DROP, PUMPED DRAIN
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAUGE
PW	PUMPED WASTE
REF	REFERENCE
RPM	REVOLUTIONS PER MINUTE
RL	RAIN LEADER
SCH	SCHEDULE
SF	SQUARE FOOT
SR	SUDS RELIEF
SS	STAINLESS STEEL, SANITARY SEWER
SQ	SQUARE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VENT
VTR	VENT THRU ROOF
W	WASTE, WATT, WIDE

EQUIPMENT

Symbol	Description
EF-1	TYPICAL EQUIPMENT DESIGNATION (EXHAUST FAN SHOWN)

GENERAL

Symbol	Description
	ARCHITECTURAL BACKGROUND (THIN LINE)
	NEW MECHANICAL WORK (HEAVY LINE)
	MATCHLINE OR PROPERTY LINE

SECTION IDENTIFICATION (DETAIL SIMILAR)

Symbol	Description
A, M-3, M-3	INDICATES DIRECTION OF CUTTING PLANE; LETTER INDICATES SECTION (NO. INDICATES DETAIL); SHEET # WHERE SECTION IS DRAWN; SHEET # WHERE SECTION IS TAKEN

PIPING

Symbol	Description
CD	CONDENSATE DRAINAGE
G	NATURAL GAS – STANDARD PRESSURE
MPG	NATURAL GAS – MEDIUM PRESSURE
	WASTE (W)
PW	PUMPED WASTE (PW)
RL	RAIN LEADER (RL)
OL	OVERFLOW RAIN LEADER (OL)
CRL	COMBINED RAIN LEADER & OVERFLOW LEADER (CRL)
	VENT (V)
	COLD WATER (CW)
	HOT WATER, POTABLE, 120°F
	HOT WATER CIRCULATING (HWC), POTABLE, 120°F
140F	HOT WATER, POTABLE, TEMPERATURE OTHER THAN 120°F
140F	HOT WATER CIRCULATING (HWC), POTABLE, TEMPERATURE OTHER THAN 120°F
IRR	IRRIGATION
	PIPE CAP
	PIPE PLUG
	UNION
	FLANGE
	GATE VALVE OR BALL VALVE
	BALL VALVE
	PRESSURE REDUCING VALVE (PRV)
	BREAK IN PIPING OR DUCTWORK
	CHECK VALVE
	BALANCING OR PLUG VALVE
	BALANCING/MEASUING VALVE
ID	INDIRECT DRAIN, PIPE TO DRAIN
	GLOBE VALVE
	BUTTERFLY VALVE
	WYE STRAINER
	WYE STRAINER WITH CAPPED HOSE END BLOWDOWN VALVE
	AUTOMATIC CONTROL VALVE, 2-WAY
	AUTOMATIC CONTROL VALVE, 3-WAY
ID	RELIEF VALVE
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
DCVA	DOUBLE CHECK VALVE ASSEMBLY
	FLOOR DRAIN
	HOSE BIBB
	PIPE ALIGNMENT GUIDE
	FLEXIBLE CONNECTION IN PIPING
PS	PIPE SUPPORT
A	PIPE ANCHOR
	PRESSURE GAGE
	THERMOMETER
P/T	PRESSURE / TEMPERATURE TEST PORT
	VALVE STATION OR ASSEMBLY
	PUMP
##	WASTE/VENT RISER CALLOUT
A	CW/HW RISER CALLOUT

GENERAL NOTES

GENERAL NOTES – MECHANICAL

1. REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY).
2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
3. CODES: COMPLETE INSTALLATION OF THE MECHANICAL SYSTEM SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL AHJ.
4. PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL DUCTWORK, DAMPERS, EQUIPMENT, PIPING, ETC.
   A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH STRUCTURAL.
   B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING, AND OTHER TRADES WORK.
   C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COMPLETE OPERATING MECHANICAL SYSTEM.
   D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
5. MECHANICAL CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITHIN THE STRUCTURE.
6. ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
7. ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, AND VTR DETAILS.
8. EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.
9. PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.
10. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.
11. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
12. CABLE TRAYS: DUCTWORK AND PIPING INSTALLED ADJACENT TO ELECTRICAL CABLE TRAYS SHALL ALLOW MINIMUM ACCESS OF 6" ABOVE AND TO THE SIDE OF CABLE TRAYS.
13. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.

COORDINATION REQUIREMENTS

1. IRRIGATION: COORDINATE WITH IRRIGATION CONTRACTOR FOR THEIR WATER SUPPLY REQUIREMENTS AND LOCATIONS.
2. UTILITIES: COORDINATE WITH SITE UTILITY CONTRACTOR AND CIVIL DRAWINGS FOR UTILITY CONNECTIONS AND EXTENSIONS.
3. ROOF DRAINAGE: COORDINATE WITH GENERAL CONTRACTOR FOR ROOF DRAIN AND OVERFLOWS, SCUPPER DRAINS, AND CONDENSATE DRAINS.
4. STORM DRAINAGE: VERIFY WITH GENERAL CONTRACTOR FOR STORM DRAINAGE PRIOR TO BIDDING.
5. PLUMBING FIXTURES: COORDINATE WITH ARCHITECTURAL AND OTHER TRADES EXACT LOCATION OF ALL PLUMBING FIXTURES.
6. PIPING: COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT THE SITE PRIOR AND DURING THE CONSTRUCTION.
7. ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.

DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE PIPING, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

8. APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.

PIPING NOTES

1. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
2. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
3. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
4. DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
5. CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.

PLUMBING NOTES

1. CONNECTIONS: PROVIDE PLUMBING FIXTURE CONNECTIONS TO BUILDING WASTE, VENT, COLD WATER, AND HOT WATER SYSTEM IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS, AND LOCAL CODES. CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNIONS, ETC. AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON PLANS.
2. HOT AND COLD: WATER PIPING CONNECTION TO EACH FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE AND HOT WATER ON THE LEFT HAND SIDE.
3. VENT STACKS: COORDINATE VENT STACK WITH HVAC EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.
4. CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT CPC AND AS REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS WHERE THEY ARE NOT HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO BE FITTED WITH CARPET INSERTS. LOCATIONS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS.
5. SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH CURRENT CPC.
6. SHUT-OFFS: PROVIDE SHUT-OFF VALVES/STOPS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT BATH/SHOWERS.
7. TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.
8. ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS APPLICATION MEETING ADA REQUIREMENTS. PROVIDE HANDI-LAV GUARD OR EQUIVALENT. OFFSET P-TRAPS TO CLEAR WHEELCHAIR ACCESS.
9. WATER HAMMER ARRESTERS: PROVIDE AT THE END OF HOT AND COLD WATER LINES SERVING TWO OR MORE FIXTURES; SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTORS ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC. MODEL PPP MIL-D-82036 OR EQUAL. VERIFY SIZE BEFORE ORDERING.
10. TRAP PRIMERS: PROVIDE TRAP PRIMERS AND PIPING FOR DRAINS AND FLOOR SINKS. ARRANGE PIPING TO ACHIEVE EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS.

DESIGN/BUILD SOLAR HOT WATER NOTES

1. SOLAR DOMESTIC WATER PRE-HEAT SYSTEM IS TO BE DESIGN BUILD, SOLAR EQUIPMENT AND PIPING SHOWN ON THE PLUMBING PLANS ARE FOR REFERENCE PURPOSES ONLY.
2. SYSTEM SHALL PROVIDE A MINIMUM OF 70% OF THE HOT WATER HEATING DEMAND, AS REQUIRED PER THE T24 CALCULATIONS.
3. SOLAR HW CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE SOLAR PANELS ON THE ROOF WITH THE ARCHITECT AND THE MECHANICAL EQUIPMENT ON THE ROOF. ATTACH TO ROOF TRUSSES, COORDINATE THE ATTACHMENTS AND ROOF PENETRATIONS WITH THE ARCHITECT AND THE STRUCTURAL ENGINEER.
4. SPACE HAS BEEN PROVIDED IN THE WATER HEATER ROOMS FOR THE PUMPS, HEAT EXCHANGER, STORAGE TANK(S), AND CONTROLS. SOLAR HW CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THEIR EQUIPMENT WITH THE PLUMBING CONTRACTOR AND THEIR EQUIPMENT.
5. REFER TO SHEET P4XX FOR PIPING DETAILS SHOWING THE INTERFACE BETWEEN THE SOLAR HW PRE-HEAT AND THE WATER HEATERS. NOTIFY ENGINEER OF RECORD IMMEDIATELY IF MODIFICATIONS TO THE PIPING DIAGRAM ARE REQUIRED FOR THE SOLAR HW PRE-HEAT SYSTEM TO FUNCTION PROPERLY.
6. SOLAR HW CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR THE INSTALLATION OF THEIR SYSTEM.
7. SOLAR COLLECTORS SHALL HAVE SRCC OG-100 COLLECTOR CERTIFICATION.
8. COMPONENTS MUST BE NEW AND UNUSED.
9. WARRANTIES: ALL SOLAR COLLECTORS MUST HAVE A MINIMUM OF A 10-YEAR MFR'S PERFORMANCE WARRANTY TO PROTECT AGAINST DEFECTS AND 15% DEGRADATION. ALL SYSTEMS MUST HAVE A MINIMUM 25-YEAR PERFORMANCE WARRANTY TO PROTECT AGAINST MORE THAN A 15% DEGRADATION OF SYSTEM PERFORMANCE OVER THE 10-YEAR PERIOD THAT MAY OCCUR AS A RESULT OF FAULTY INSTALLATION. ALL SYSTEMS MUST HAVE A MINIMUM 1-YEAR WARRANTY ON INSTALLATION LABOR AND WORKMANSHIP NOT OTHERWISE COVERED BY THE MANUFACTURER'S PERFORMANCE WARRANTY.
10. REBATES/INCENTIVES: THE SOLAR CONTRACTOR WILL CARRY THE NSHP REBATE. THE OWNER WILL BE PURCHASING THE ASSOCIATED ENERGY CREDITS.

PRE-CON MEETING

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIALCHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED,BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL	2 HOURS
PLUMBING/PIPING	2 HOURS
ELECTRICAL	2 HOURS
GENERAL CONTRACTOR	ALL SESSIONS

APPLICABLE CODES

THESE DRAWINGS ARE BASED ON THE FOLLOWING CODES:

-2016 CALIFORNIA BUILDING CODE

-2016 CALIFORNIA MECHANICAL CODE

-2016 CALIFORNIA PLUMBING CODE

-2016 CALIFORNIA NON-RESIDENTIAL ENERGY CODE

PIPE MATERIALS

2. UNDERGROUND SERVICE ENTRANCE PIPING: COPPER TYPE L MAINS.
1. WATER DISTRIBUTION PIPING: CPVC FOR MAINS, AND RISERS AND PEX IN RESIDENTIAL UNITS. COPPER TYPE L ON THE ROOF AND IN THE MECHANICAL ROOM.
2. WASTE & VENT PIPING ABOVE GRADE: CAST IRON.
3. WASTE & VENT PIPING BELOW GRADE: ABS, OR PVC.
4. CONDENSATE DRAIN PIPING: TYPE M COPPER.
5. UNDERGROUND STORM PIPING: ABS, OR PVC.
6. ABOVEGROUND STORM PIPING: CAST IRON.
7. GAS PIPING: STEEL PIPE, ASTM A 53; TYPE E OR S; GRADE B; SCHEDULE 40.

NOTE: ALL METALLIC PIPE, FITTINGS AND PARTS OF FIXTURES BURIED IN THE GROUND SHALL BE PROTECTED BY AT LEAST 2 LAYERS OF 3 MIL PLASTIC OR EQUIVALENT PIPING.

CALGREEN REQUIREMENTS

PROJECT SHALL COMPLY WITH THE FOLLOWING PROJECT GREENPOINT REQUIREMENTS PER BELOW:

PLUMBING NOTES

1. WATER EFFICIENT FIXTURES
   A. INSTALL HIGH EFFICIENCY TOILETS (1.28 GPF)
      i. IN ALL RESIDENCES
      ii. IN ALL NON RESIDENTIAL AREAS.
   B. PROVIDE HIGH EFFICIENCY URINALS OR NO WATER URINALS
      i. AVERAGE FLUSH RATE IS 0.5 GPF.
   C. PROVIDE HIGH EFFICIENCY SHOWERHEADS (1.8 GPM OR LESS).
   D. PROVIDE FLOW LIMITERS OR FLOW CONTROL VALVES ON ALL FAUCETS.
      i. RESIDENCES: KITCHEN FLOW RATES SHALL BE 1.8 GPM OR LESS.
      ii. NON RESIDENTIAL KITCHENS: KITCHEN FLOW RATES SHALL BE 1.9 GPM OR LESS.
      iii. BATHROOM FAUCETS SHALL BE 1.2 GPM OR LESS.
2. DISTRIBUTE HOT WATER EFFICIENTLY.
   A. INSULATE ALL HOT WATER PIPES.
3. PROVIDE WATER SUBMETERING FOR EACH APARTMENT UNIT.

DRAWING INDEX

DWG	DESCRIPTION	INCLUDED IN SET: 50% SD 08/13/18	100% SD 10/15/18					
P0.00	LEGEND, INDEX, GENERAL NOTES	X	X					
P0.01	SCHEDULE		X					
P1.00	SITE PLAN	X	X					
P2.00A	UNDERSLAB PLAN – A		X					
P2.00B	UNDERSLAB PLAN – B		X					
P2.00C	UNDERSLAB PLAN – C		X					
P2.01A	LEVEL 01 – FLOOR PLAN – A		X					
P2.01B	LEVEL 01 – FLOOR PLAN – B	X	X					
P2.01C	LEVEL 01 – FLOOR PLAN – C		X					
P3.00	ENLARGED PLANS		X					

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EMERALD CITY ENGINEERS, INC

PROJECT:
GATEWAY FAMILY HOUSING

LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
LEGEND, INDEX, GENERAL NOTES

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
P0.00

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DOMESTIC WATER HEATER SCHEDULE – GAS

EQUIP NO.	SERVICE	HEAT EXCHANGER			STORAGE, GALLONS	STORAGE, DEG. F	TE %	ELECTRICAL	BASIS OF DESIGN
		FUEL SOURCE	INPUT (MBH)	GPH RECOVERY AT 100°F TR					
WH–1	DOMESTIC WATER	NAT. GAS	399	460	119	140	95	120V/1P, 4.0 AMPS	A.O. SMITH BTH–400A (1)(2)(3)
WH–2	DOMESTIC WATER	NAT. GAS	399	460	119	140	95	120V/1P, 4.0 AMPS	A.O. SMITH BTH–400A (1)(2)(3)
WH–3	DOMESTIC WATER	NAT. GAS	399	460	119	140	95	120V/1P, 4.0 AMPS	A.O. SMITH BTH–400A (1)(2)(3)
WH–4	DOMESTIC WATER	NAT. GAS	399	460	119	140	95	120V/1P, 4.0 AMPS	A.O. SMITH BTH–400A (1)(2)(3)

NOTES: (1) PROVIDE MANUFACTURERS CONCENTRIC VENT KIT.
(2) WATER HEATERS SHALL BE ASME LISTED.
(3) WATER HEATERS ARE SEALED COMBUSTION DIRECT VENT.

EXPANSION TANK SCHEDULE

EQUIP NO.	SERVICE	CAPACITY, GALLONS	TANK SIZE, IN		BASIS OF DESIGN
			DIA.	HEIGHT	
ET–1	DOMESTIC WATER	211	30	90	AMTROL ST–452C

THERMOSTATIC MIXING VALVE SCHEDULE

TMV–1	(3) SYMMONS 1000 MIXING VALVES PIPED IN PARALLEL. MAXIMUM PRESSURE DROP OF 10 PSI 200 GPM MAXIMUM FLOW.

WATER SUPPLY SIZING CALCULATIONS

HORIZONTAL MAINS

Emerald City Engineers, Inc.
6505 216Th SW, Suite 200
Mountlake Terrace, WA 98133

Project Name: Gateway Family
Project Number: 2083-003
Edited By: TP
Edit Date: 10/12/2018

WATER SUPPLY PIPE SIZING CALCULATION FORM - MAINS

UTILITY SUPPLY WATER PRESSURE: *OBTAIN FROM CIVIL OR LOCAL UTILITY COMPANY.*			80.0 PSI STATIC PRESSURE
WATER METER LOSS: *TYPICALLY 3-8 PSI.*			5.0 PSI
BACKFLOW PREVENTER LOSS: *TYPICALLY 5-10 PSI.*			8.0 PSI
AVAILABLE PRESSURE AT BUILDING			67.0 PSI
STATIC LIFT TO LEVEL 1 CEILING:	15 FEET =		6.5 PSI
REQUIRED MINIMUM PRESSURE AT BOTTOM OF RISER			61.0 PSI
PRESSURE AVAILABLE TO OFFSET FRICTION LOSSES:			12.5 PSI
PIPING SYSTEM LENGTH FROM SERVICE TO FURTHEST RISER:			580.0 FEET
FITTING ALLOWANCE:			290.0 FEET
MAXIMUM FRICTION LOSS FACTOR:			1.4 PSI/100 FT
SELECTED FRICTION LOSS FACTOR:			1.4 PSI/100 FT

MAX CW & HW VELOCITY 8 FPS FOR 1/2" - 2".
MAX CW & HW VELOCITY 5 FPS FOR PIPES 2-1/2" & LARGER.

SUPPLY PIPE SIZING SCHEDULE

PIPE SIZE IN	FLUSH TANK CW FLOW, GPM	VEL FPS	FIXTURE UNITS	PIPE MATERIAL
3/4"	2.7	2.2	2.5	CPVC - SDR 11
1"	5.3	2.6	6.5	CPVC - SDR 11
1-1/4"	9.0	2.9	12.0	CPVC - SDR 11
1-1/2"	13.9	3.2	20.0	CPVC - SDR 11
2"	27.7	3.7	48.0	CPVC - SDR 11
2-1/2"	58.4	4.6	167.0	CPVC - SCHEDULE 80
3"	100.4	5.0	382.0	CPVC - SCHEDULE 80
4"	174.4	5.0	775.0	CPVC - SCHEDULE 80
6"	398.7	5.0	2655.0	CPVC - SCHEDULE 80
8"	700.1	5.0	5380.0	CPVC - SCHEDULE 80

VERTICAL RISERS & RUNOUTS

Emerald City Engineers, Inc.
6505 216Th SW, Suite 200
Mountlake Terrace, WA 98133

Project Name: Gateway Family
Project Number: 2083-003
Edited By: TP
Edit Date: 10/12/2018

WATER SUPPLY PIPE SIZING CALCULATION FORM - RISERS & RUNOUTS

AVAILABLE PRESSURE AT BOTTOM OF RISER			61.0 PSI
STATIC LIFT:	38 FEET =		16.5 PSI
REQUIRED MINIMUM PRESSURE AT FURTHEST PLUMBING FIXTURE:			25.0 PSI
UNIT WATER METER LOSS:			5.0 PSI
PRESSURE AVAILABLE TO OFFSET FRICTION LOSSES:			14.5 PSI
PIPING SYSTEM LENGTH FROM SERVICE TO FURTHEST FIXTURE:			118.0 FEET
FITTING ALLOWANCE:			59.0 FEET
MAXIMUM FRICTION LOSS FACTOR:			8.2 PSI/100 FT
SELECTED FRICTION LOSS FACTOR:			8.2 PSI/100 FT

MAX CW & HW VELOCITY 8 FPS FOR 1/2" - 2".
MAX CW & HW VELOCITY 5 FPS FOR PIPES 2-1/2" & LARGER.

SUPPLY PIPE SIZING SCHEDULE

PIPE SIZE IN	FLUSH TANK CW FLOW, GPM	VEL FPS	FIXTURE UNITS	PIPE MATERIAL
1/2"	2.6	4.5	3.0	CPVC - SDR 11
3/4"	7.1	5.7	8.0	CPVC - SDR 11
1"	13.8	6.6	19.5	CPVC - SDR 11
1-1/4"	23.3	7.5	37.0	CPVC - SDR 11
1-1/2"	36.1	8.0	69.5	CPVC - SDR 11
2"	72.2	8.0	237.0	CPVC - SDR 11
2-1/2"	64.1	5.0	195.5	CPVC - SCHEDULE 80
3"	100.4	5.0	382.0	CPVC - SCHEDULE 80
4"	174.4	5.0	775.0	CPVC - SCHEDULE 80
6"	398.7	5.0	2655.0	CPVC - SCHEDULE 80
8"	700.1	5.0	5380.0	CPVC - SCHEDULE 80

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EMERALD CITY ENGINEERS, INC
21705 Highway 99
Lynnwood, WA 98036
TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

NO.	DATE	REVISION

ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROUGHEER
No. M–38651
EXP. 12–31–19
MECHANICAL
STATE OF CALIFORNIA

TITLE
SCHEDULES

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
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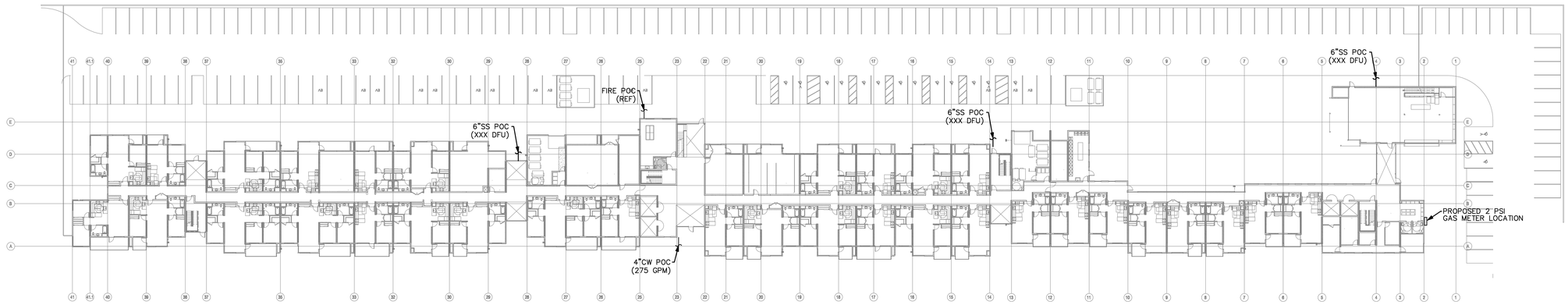

SITE PLAN

SCALE: 1" = 30'

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MATTHEW D. BROOKER
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
SITE PLAN

PROJECT NO.

DATE
10/15/2018

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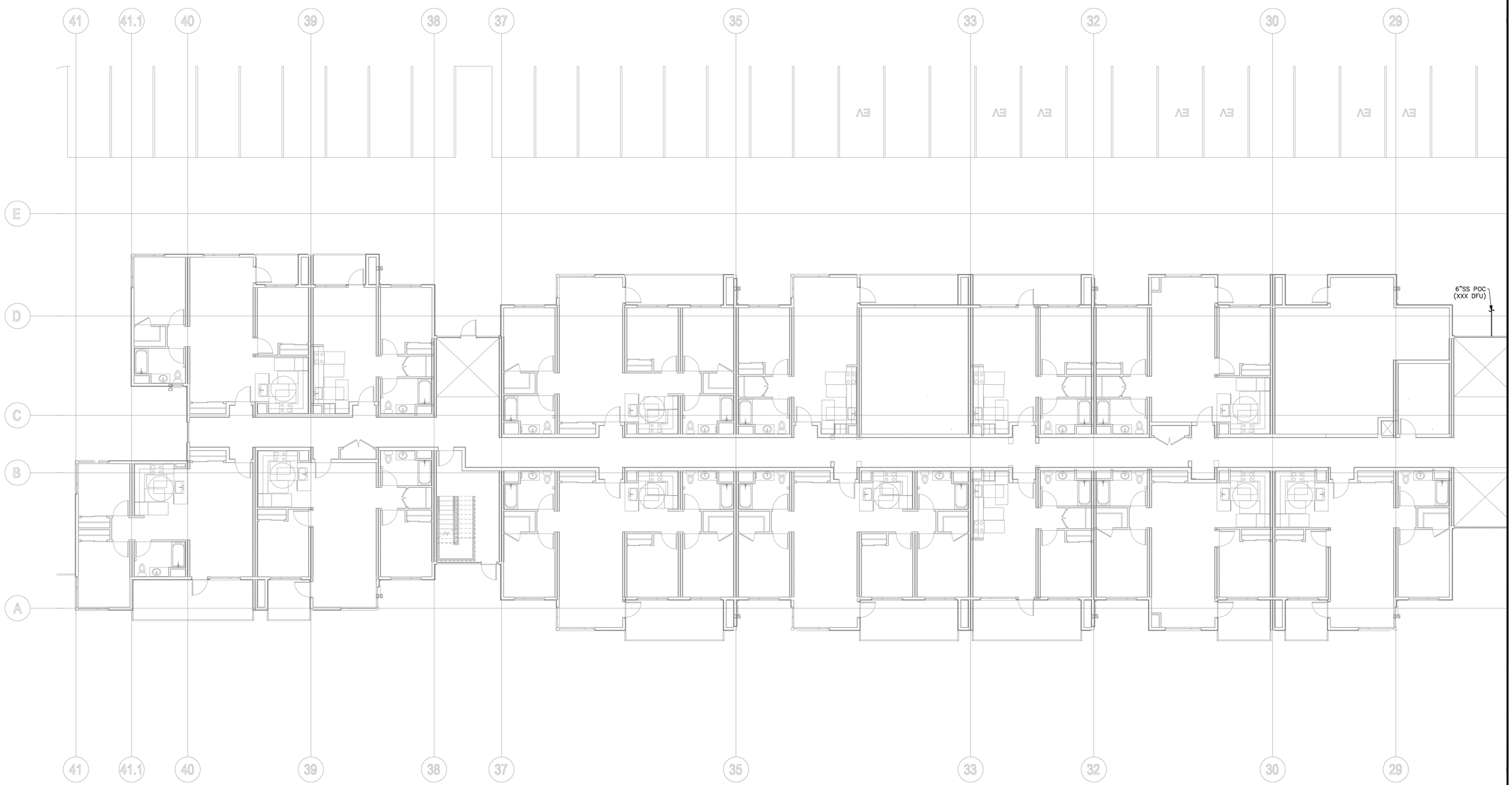

UNDERSLAB PLAN – A

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKS
No. M-38651
EXP 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
UNDERSLAB PLAN - A

PROJECT NO.

DATE
10/15/2018

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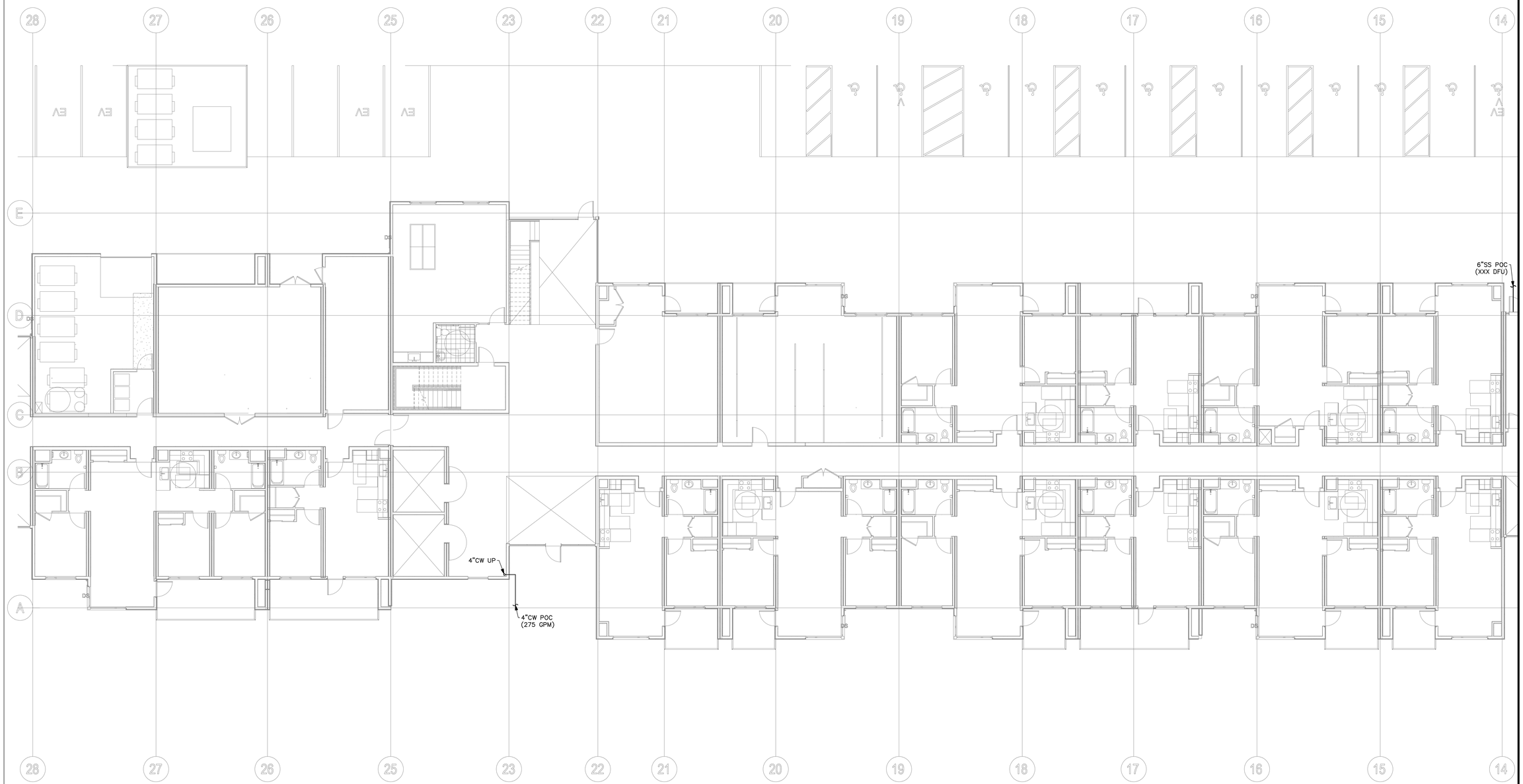

UNDERSLAB PLAN – B

SCALE: 1/8" = 1'-0"

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PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

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ENGINEER SEAL

REGISTERED PROFESSIONAL ENGINEER
MATTHEW D. BROOKER
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
UNDERSLAB PLAN - B

PROJECT NO.

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UNDERSLAB PLAN – C

SCALE: 1/8" = 1'-0"

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TEL: 425-741-1200

PROJECT:
GATEWAY FAMILY HOUSING
LOCATION:
1300 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR:
MIDPEN HOUSING

KEYMAP

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REGISTERED PROFESSIONAL ENGINEER
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No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

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UNDERSLAB PLAN - C

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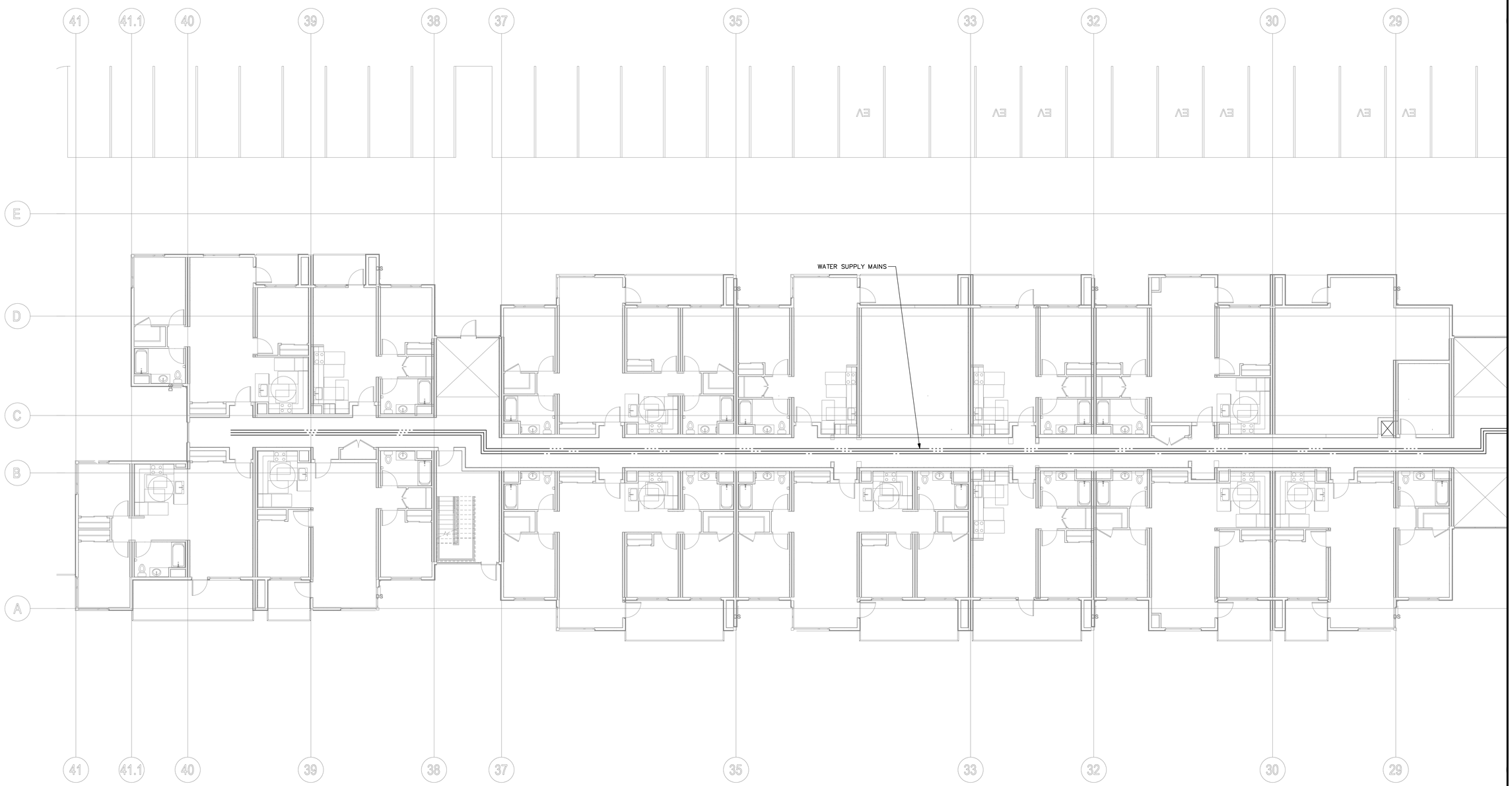

LEVEL 01 – FLOOR PLAN – A

SCALE: 1/8" = 1'-0"

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MATTHEW D. BROOKS
No. M-38651
EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

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LEVEL 01 - FLOOR PLAN - A

PROJECT NO.

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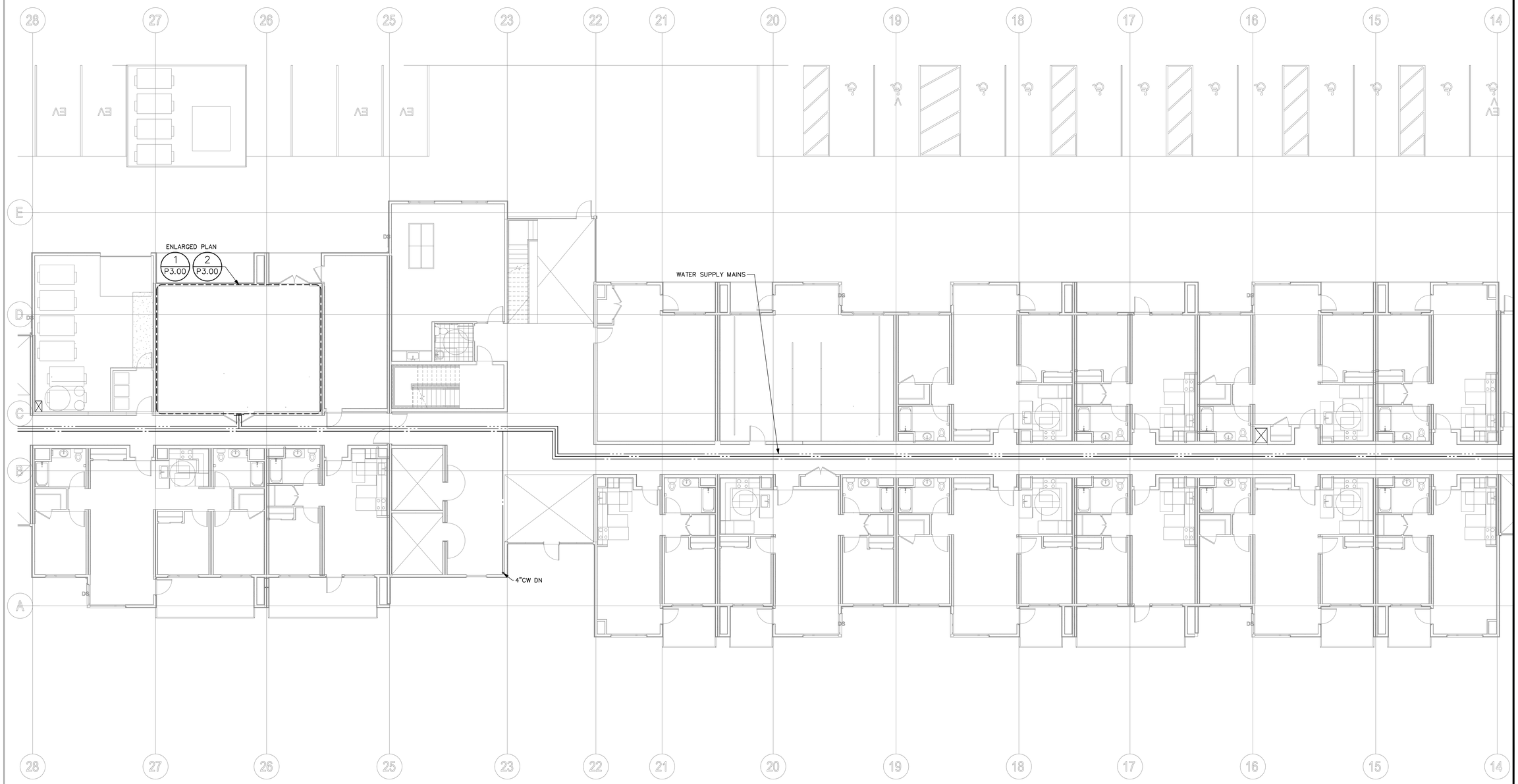

LEVEL 01 – FLOOR PLAN – B

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No. M-38651
EXP. 12-31-19
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STATE OF CALIFORNIA

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LEVEL 01 - FLOOR PLAN - B

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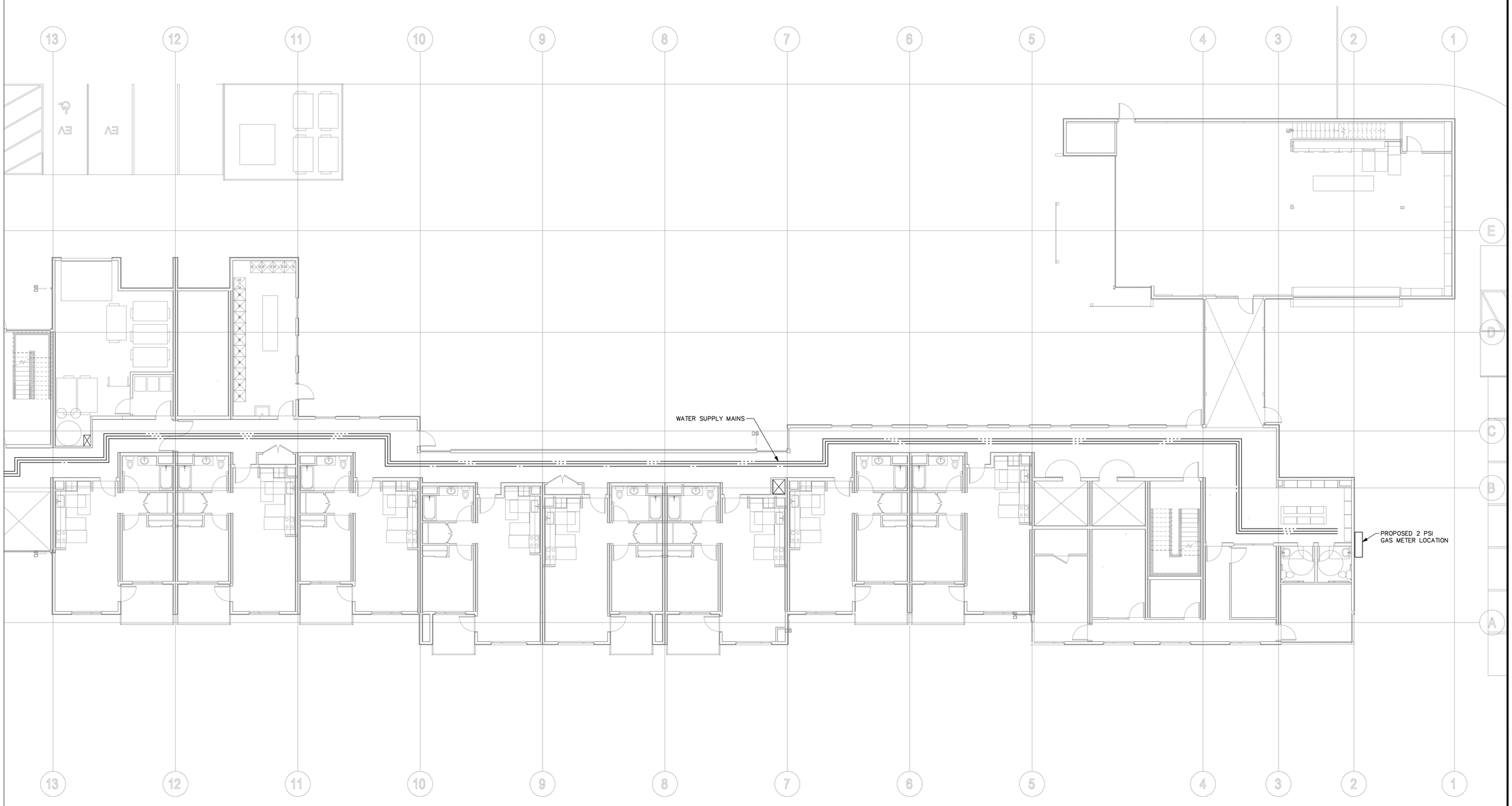

LEVEL 01 – FLOOR PLAN – C

SCALE: 1/8" = 1'-0"

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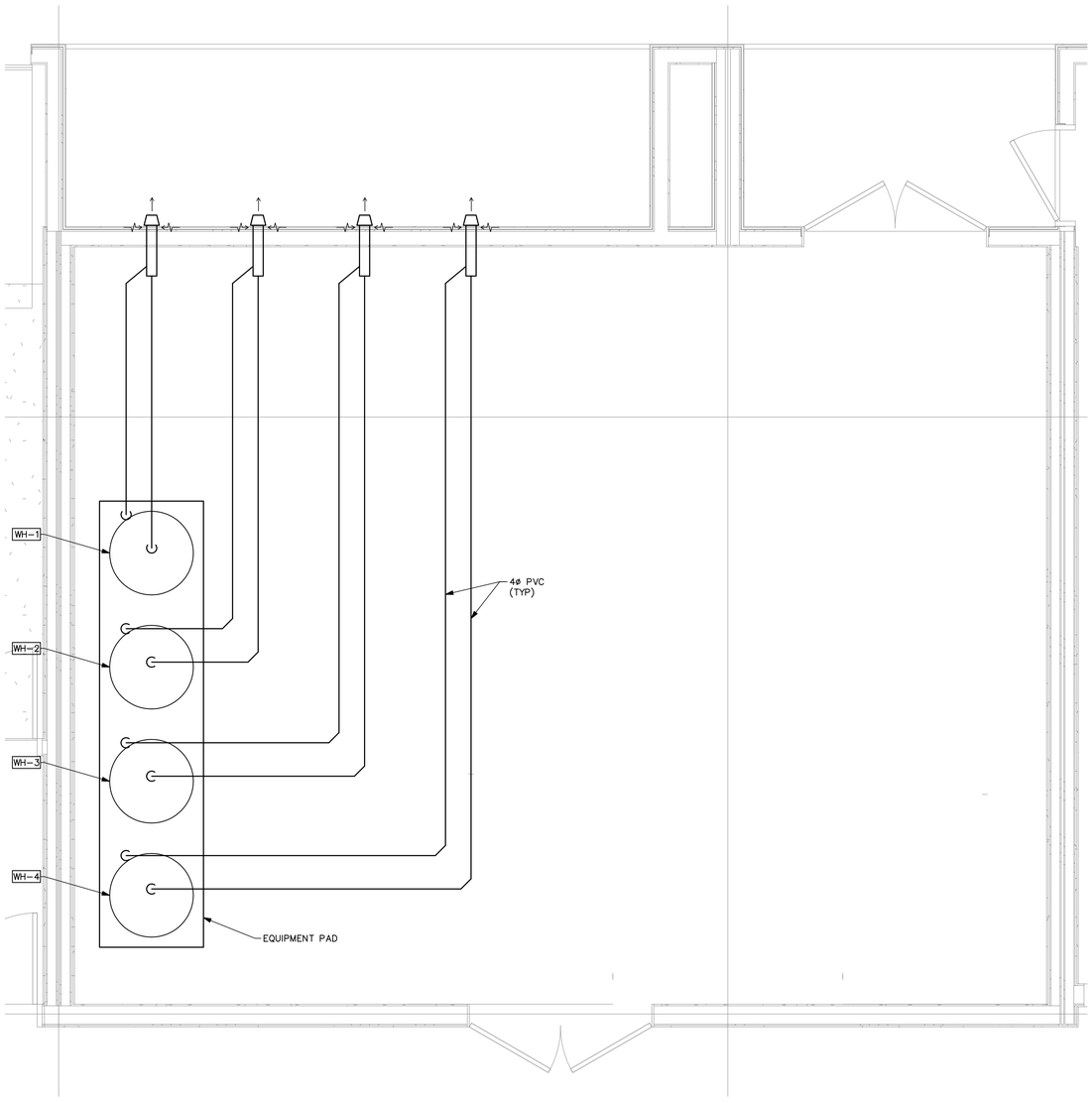
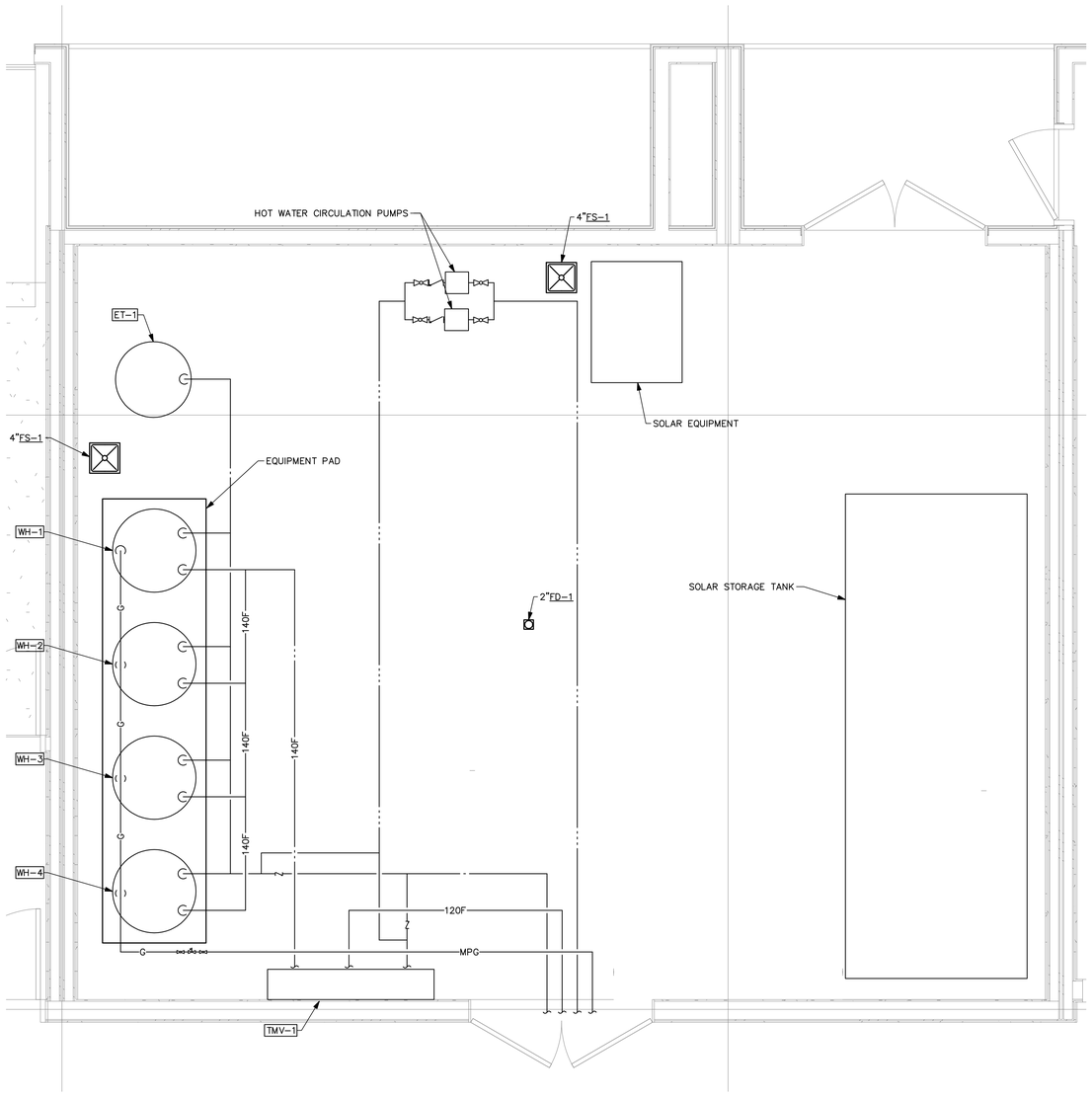


MECHANICAL ROOM – VENTING

ENLARGED PLAN

SCALE: 1/2" = 1'-0"

2
P3.00



MECHANICAL ROOM – PIPING

ENLARGED PLAN

SCALE: 1/2" = 1'-0"

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P3.00

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EXP. 12-31-19
MECHANICAL
STATE OF CALIFORNIA

TITLE
ENLARGED PLANS

PROJECT NO.

DATE
10/15/2018

SHEET NUMBER
P3.00

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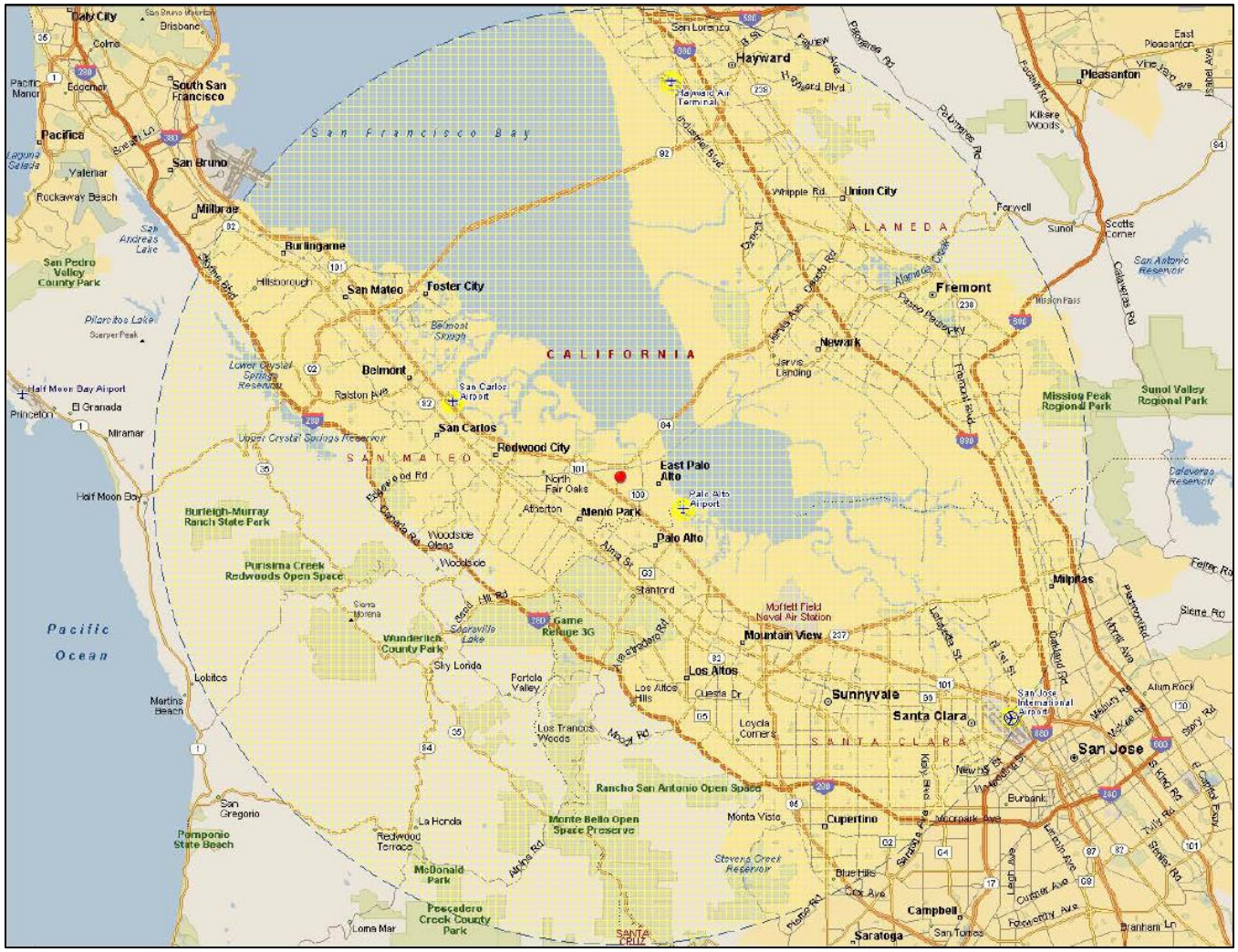
Appendix B – Airport Clear Zones

Gateway Family Housing
1345 Willow Road
Menlo Park, CA 94025

Airports within 15 miles of the subject site.



Airport type	Name	Distance from subject (Miles)	Airport Clear Zone
Major Airports	San Jose International	14.7 – S	No

Airport type	Name	Distance from subject (Miles)	Airport Clear Zone
Minor Airport	Palo Alto Airport	2.28 – S	No
Minor Airport	San Carlos Airport	5.88 – N	No
Minor Airport	Hayward Air Terminal	12.74 – N	No

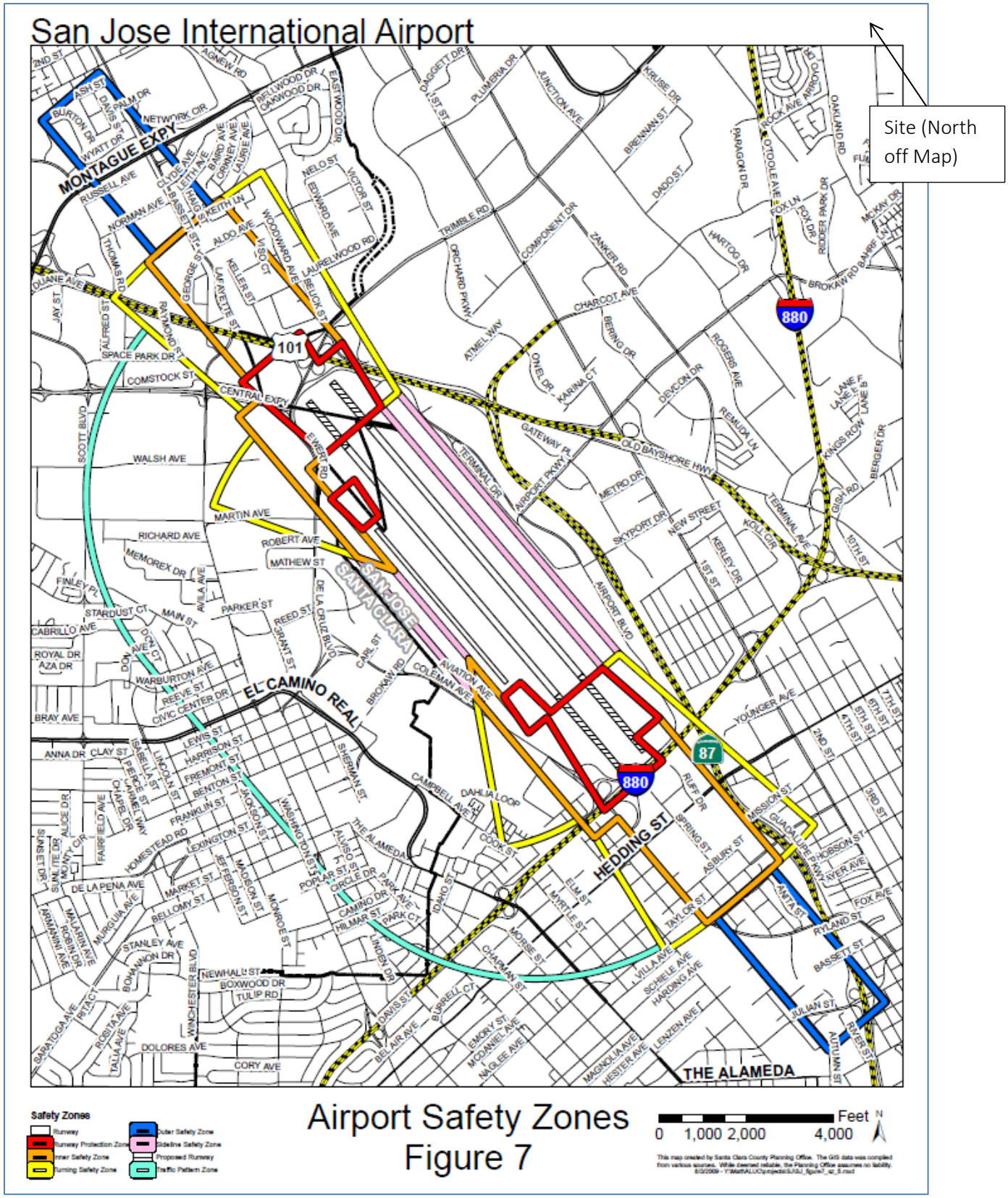


Figure 11 San Jose International Airport Safety Zones

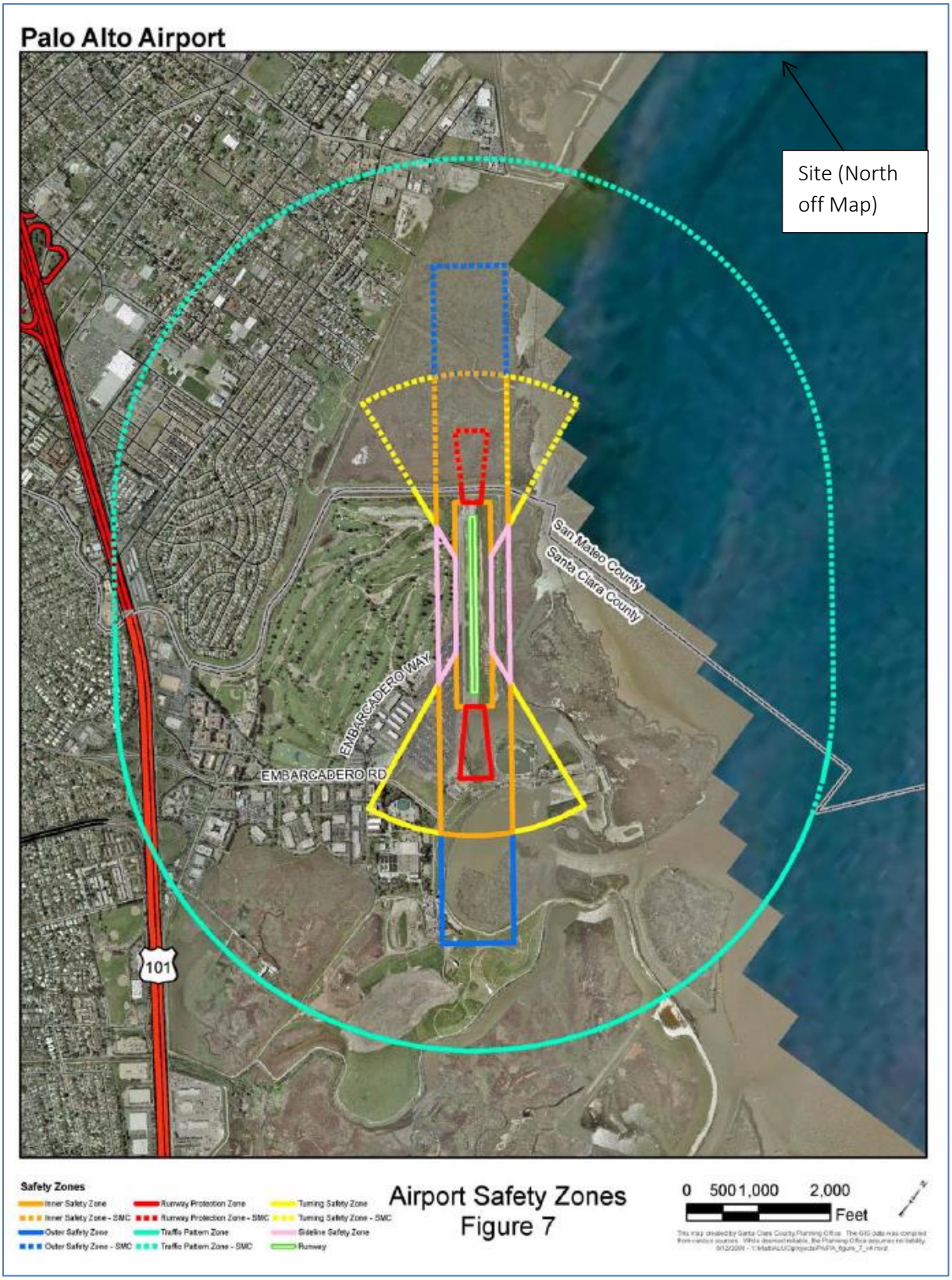


Figure 12 Palo Alto Airport Safety Zones

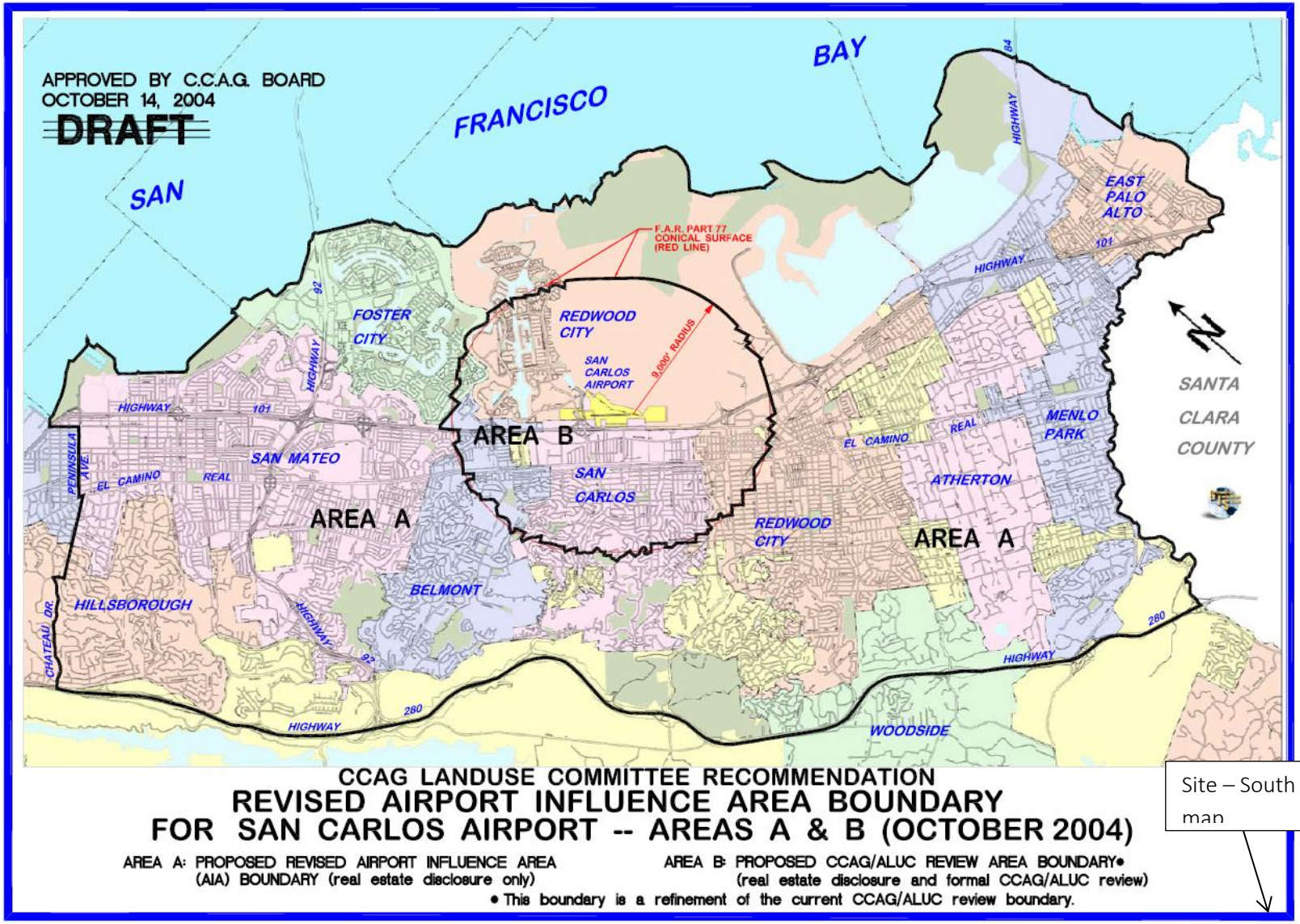


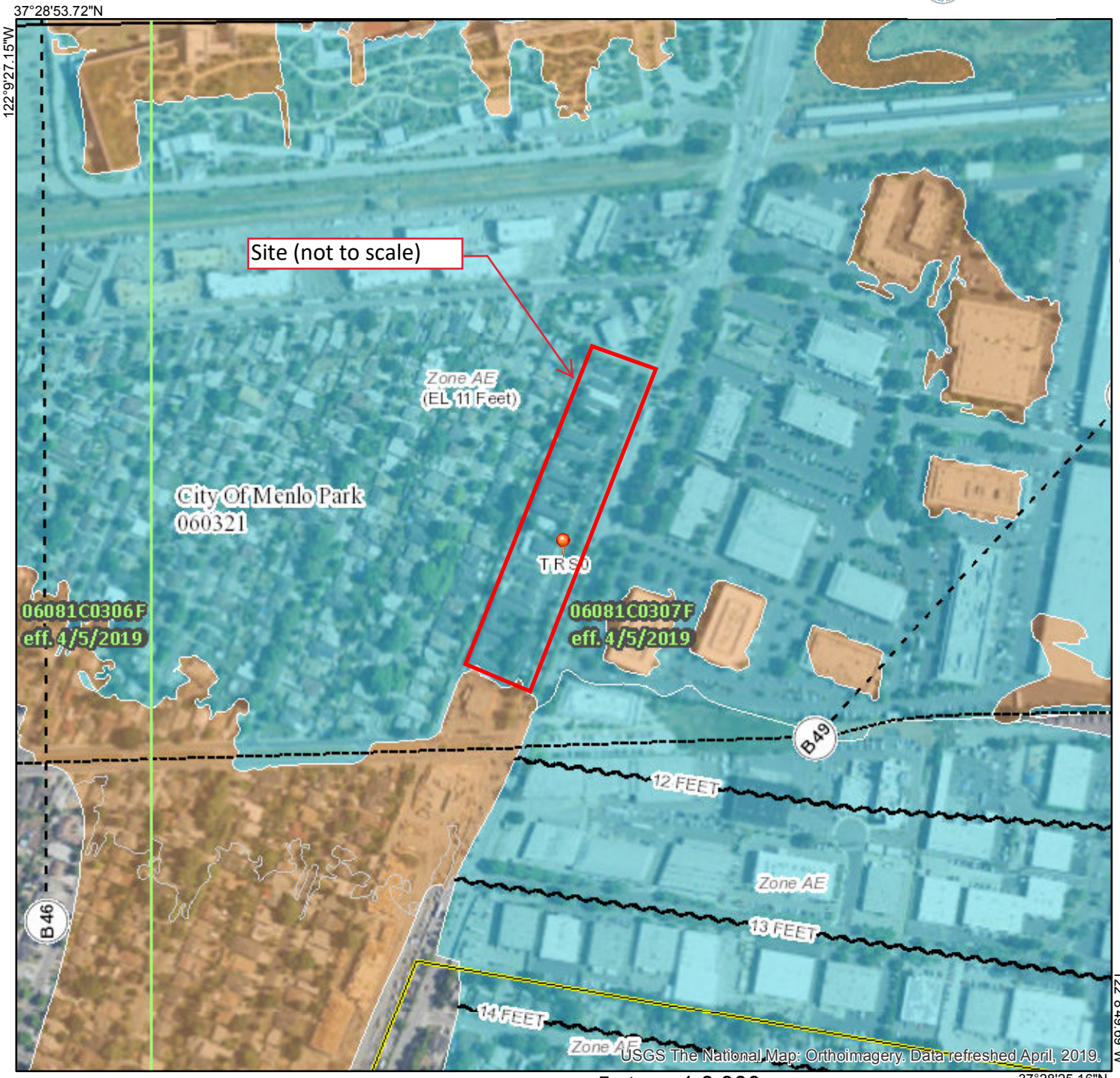
Figure 13 San Carlos Airport Influence Area Boundary

Appendix C– Floodplains, Wetlands & Endangered Species

- U.S. Department of Homeland Security. *Flood Insurance Rate Map.* s.l. : Federal Emergency Managment Agency (FEMA), Effective Date: April 5, 2019. FIRM Panel No. 06081C0307F.
- U.S. Department of Housing and Urban Development. *8-Step Process - Decision Making Process for Executive Order 11988 as Provide by 24 CFR Part 55.20, Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025.* s.l. : AEM Consulting, May 2019.
- BKF Engineers. *Preliminary Hydrology Calculations, MidPen Gateway Family Housing, 1345 Willow Road, Menlo Park, California, County of San Mateo.* San Jose, CA : s.n., February 25, 2019.
- U.S. Fish and Wildlife Service. *National Wetlands Inventory, Gateway Family Housing.* May 27, 2019.
- U.S. Fish and Wildlife Service. *List of threatened and endangered species that may occur in proposed project location and/or may be affected by proposed project, Gateway Family Housing.* Sacramento, CA : Sacramento Fish and Wildlfie Office, May 20, 2019. Consultation Code: 08ESMF00-2019-SLI-1976 .
- HortScience, Inc. *Arborist Report, Gateway 1300, Menlo Park, CA.* Pleasanton, CA : s.n., Tree Inventory: October 26, 2015; Updated Arborist Report: July 18, 2018.

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/14/2019 at 11:42:21 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Department of Housing and Urban Development:

8-Step Process

Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025

--Nesreen Kawar, MidPen Housing Corp.

--Decision Process for E.O. 11988 as Provided by 24 CFR §55.20

Step 1: *Determine whether the action is located in a 100-year floodplain (or a 500-year floodplain for critical actions) or wetland.*

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A part time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room.

The current zoning of the property is R-4-S, High Density Residential which is appropriate for the proposal. The project proposes a density of 37.23 dwelling units per acre (du/acre). The existing frontage easement will be abandoned.

The target demographic is low-income families and will be 100% affordable housing.

The project site is located entirely with a Special Flood Hazard Area as designated on Flood Insurance Rate Map (FIRM) 06081C0307 F, effective April 5, 2019. The Base Flood Elevation (BFE) is depicted to be 11 feet above mean sea level (msl) across the entire site.

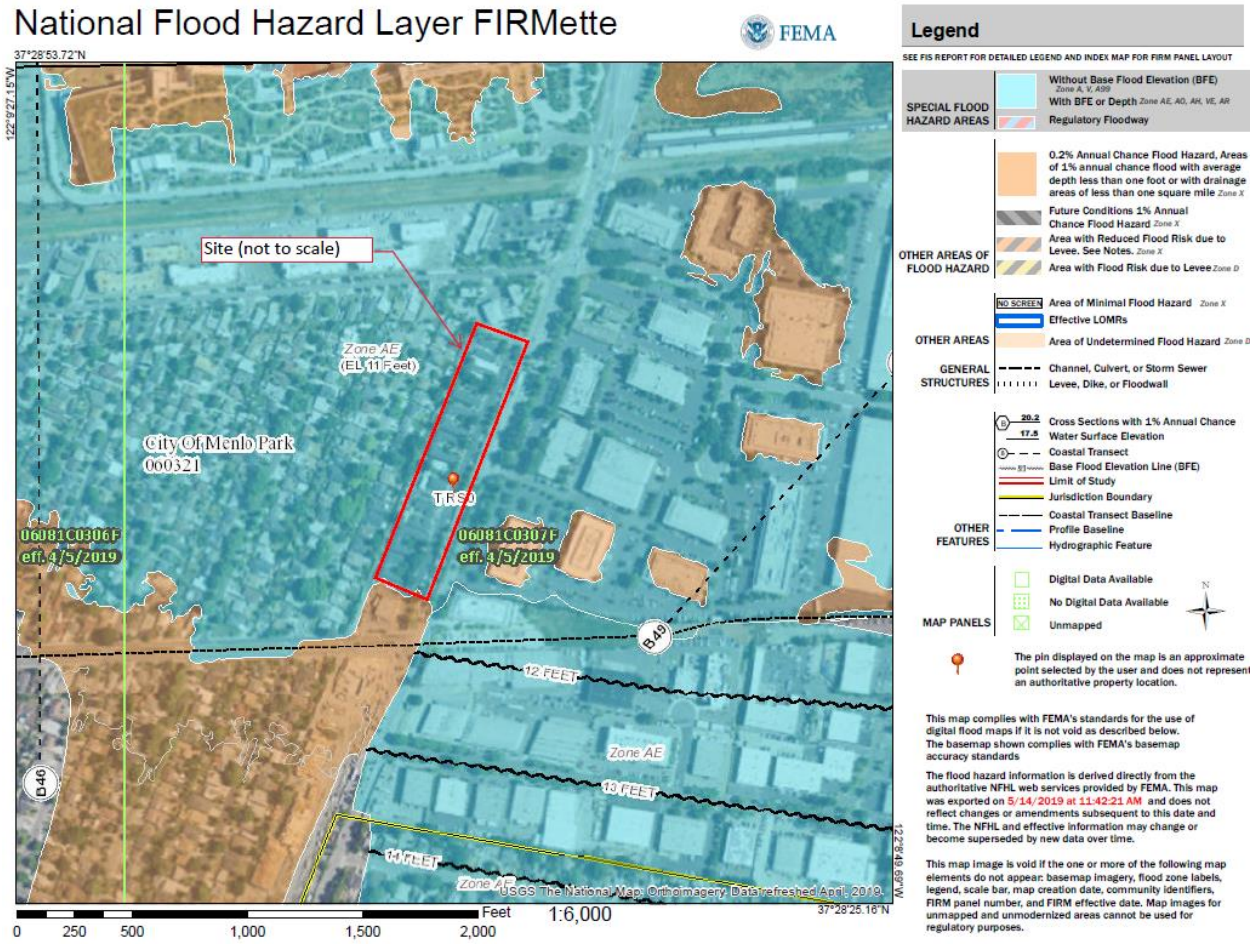


FIGURE 1 FLOOD INSURANCE RATE MAP (FIRM)

The entire site is located in Zone AE: Special Flood Hazard Area, 100-year floodplain with Base Flood Elevation of 11 feet above msl.

There are no wetlands on the site itself, and in fact the entire site is currently developed and covered in improvements. There are 82 apartments in 17 buildings on the 2.96 acre parcel along with paved parking areas and driveways for circulation.

This project is redevelopment of the site at a higher density to provide a net increase of 58 affordable multifamily housing units over current conditions. The site is currently utilizing Project-Based Section 8 Vouchers as on-going rental subsidies for residents. This subsidy will secure funding for redevelopment of the site; therefore Executive Orders E.O. 11988- Floodplain Management and E.O. 11990- Wetlands Protection apply. This project does not meet any of the exceptions at 24 CFR 55.12 and therefore requires an 8-step analysis of the direct and indirect impacts associated with the construction, occupancy, and modification of the floodplain.

Step 2: *Notify the public for early review of the proposal and involve the affected and interested public in the decision making process.*

A public notice describing the project was published in the local paper, the San Mateo County Times on May 23, 2019. The ad targeted local residents, including those in the floodplain. The notice was also sent to interested Federal, State, local agencies, and non-profit groups such as the state floodplain manager, environmental protection groups, neighbors, and a group of individuals known by the City of Petaluma to be interested in such notices. A list of specific agencies and individuals and a copy of the published notification is kept in the project's environmental review record and attached to this document. The required 15 calendar days were allowed for public comment. As required by regulation, the notice also included the name, proposed location and description of the activity, total number of floodplain acres involved, and the responsible entity contact for information (County of San Mateo, Department of Housing) as well as the location and hours of the office at which a full description of the proposed action can be viewed.

There were no comments submitted in response to the Notice.

Step 3: *Identify and evaluate practicable alternatives.*

The site is owned by the project sponsor – MidPen Housing Corporation. Purchase of other potential building sites in Menlo Park is cost prohibitive. The alternatives are alternative site designs, which could include raising the project out of the floodplain with fill, raising residential units with tuck under parking, for example, locating the project in the floodplain and the no project alternative. The site could remain in its current developed state providing apartments constructed in the 1950s that continue to near end-of-life.

Step 4: *Identify Potential Direct and Indirect Impacts Associated with Floodplain Development.*

Potential impacts from the project, without mitigation, could cause an increase in the base flood elevation at the site during a 100-year flood and potentially off-site flooding. Indirect effects include the floodplain itself and potential change to the shape and size.

A *Preliminary Hydrology Calculations* report prepared by BKF Engineers on February 25, 2019 (see attached report) determined that overall, impervious surfaces will be increased by 6,825 sf, but the proposed flow rate is reduced to 4.2 cubic feet per second (cfs) from an existing flow rate of 6.4 (cfs). This represents a decrease of 65%. Therefore, the project, by design, is not required to provide additional detention since excess runoff volume will not be created. This is based on the current design, which includes fill to raise the buildings to 12 feet above msl, which is one foot (1') above the Base Flood Elevation.

Step 5: *Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain and/or wetland.*

The project has applied for a Conditional Letter of Map Amendment and will seek a final Letter of Map Amendment based on Fill (LOMA-F) after construction. No residential units or insurable structures will be placed in the floodplain. There is no increase in offsite flooding or impacts to the floodplain as calculated by BKF Engineers.

Step 6: *Reevaluate the Alternatives.*

The proposal has been evaluated and presents the best possible design.

Step 7: *Determination of No Practicable Alternative*

It is the County of San Mateo's determination that there is no practicable alternative for locating the project in a flood zone.

A final notice was published and posted consistent with the prior notice. The notice explains the reasons why the project must be located in the floodplain, offers a list of alternatives considered at Steps 4 and 6, and describes all mitigation measures at Step 5 taken to minimize adverse impacts and preserve natural and beneficial floodplain values. The notice was combined with the Finding of No Significant Impact and Notice of Intent to Request Release of Funds. A copy of the three-part notice is contained in the Environmental Review Record (ERR) for the project. Any concerns expressed by the public concerning these notices and responses to the concerns, if any, are also contained within the ERR on file at the County of San Mateo, Department of Housing offices, located at 264 Harbor Blvd., Building A, Belmont, CA 94002.

Step 8: *Implement the Proposed Action*

The project will be required to demonstrate that the finish floor elevation is 12 feet above mean sea level and obtain the final Letter of Map Amendment based on Fill (LOMA-F) from the Federal Emergency Management Agency (FEMA) after construction. Flood insurance is not required.

This concludes compliance steps for Executive Orders.

PRELIMINARY
HYDROLOGY CALCULATIONS

MidPen Gateway Family Housing
1345 Willow Road
Menlo Park, California
County of San Mateo

Prepared for:

City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025
(650) 330-6740

Prepared by:

BKF Engineers
1730 North First Street, Suite 600
San Jose, CA 95112

ENGINEERS . SURVEYORS . PLANNERS

Prepared
February 25, 2019

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2.0 Existing Conditions **2**

3.0 Proposed Conditions **2**

4.0 Design Criteria **3**

5.0 Summary of Calculations **5**

6.0 Conclusions **8**

Exhibit

Exhibit A: Existing Drainage Basin Exhibit And Calculations

Exhibit B: Proposed Drainage Basins Exhibit And Calculations

Exhibit C: HGL Calculations

Exhibit D: City of Menlo Park IDF Curve

Exhibit E: Project Grading and Drainage Plans

Exhibit F: Project Utility Plans

Exhibit G: Belle Haven Storm Drain System Calculations

Exhibit H: Supplemental Geotechnical Investigation Proposed
Proposed Gateway Family Housing 1345 Willow Road

1.0 Introduction

The Gateway Family Housing Project is located in Menlo Park between Ivy Drive and Hamilton Avenue. It is an existing MidPen Housing property for low-income families. The existing property consists of 17 buildings with 82 units on an approximate 2.98-acre site. The proposed improvements will redevelop the existing 17 single and two-story buildings into a single high density three and four-story building with 140 units dedicated to low-income families. The public frontage road will be vacated to the project to increase the overall approximate acreage to 3.76.

Overall, impervious surfaces will be increased by 6,825 sf, but the proposed flow rate is reduced to 4.2 cubic feet per second (cfs) from an existing flow rate of 6.4 (cfs).

2.0 Existing Conditions

The current project site is mostly impervious and comprised of traditional asphalt and concrete pavements, building roofs and minimal landscaping. The existing topography gently falls from south to north an average slope of 0.4% (Ivy Drive towards Hamilton Avenue).

The runoff is collected by a series of catch basins and area drains around the site, which gets conveyed to the frontage road on the east side of the project and ultimately to the city storm main located in Willow Road (State Highway 114). Three 24-inch connections (CB1, CB2, and CB4) connect to the 66-inch City storm main located in Willow Road. See **Exhibit A:** Existing Drainage Basin and Calculations Exhibit.

3.0 Proposed Conditions

In addition to the new building, the Project's improvements will include a new surface parking lot, decomposed granite walkways, concrete walkways, wood decks, and new landscaping.

The proposed development will collect stormwater from the roof where it will be conveyed through downspouts to flow-thru planters for treatment of the pollutants. Runoff collected from the sidewalk, parking spaces, and drive aisles will be treated by bioretention basins both at grade and via a "Silva-Cell" type product. All treated runoff from the flow-thru planters and bioretention basins will then be collected and discharged into the City storm system at the existing storm connections (CB1, CB2, and CB4).

Constraints

Per the Supplemental Geotechnical Investigation," dated July 19, 2018, the existing soil conditions are highly expansive. Therefore, it is not recommended for the treated water to infiltrate. In addition, the report also indicates the historic high ground water lever at the site is approximately 10 feet below ground surface.

Overland Release

Overland stormwater release is as follows: from the flow-thru planters with a freeboard of 2-inches above the overflow drain to the top of the wall and additional 6-inches of waterproofing above that at the building face. The stormwater will overtop the wall and flow one of two ways. Easterly away from the building towards the swale that is along the Willow Road frontage. The stormwater is blocked by a meandering landscape berm, which keeps it on the project site as the stormwater flows north towards the driveway curb cut on Willow Road. Or westerly away from the building where the stormwater will sheet flow across landscaping, walks, and the parking lot to be captured in a gutter system along the western edge of the property. The overland release path will continue northerly ponding less than 12-inches and eventually releasing at the northern driveway curb cut on Willow Road.

4.0 Design Criteria

Computation criteria is based on the requirements set forth in the City of Menlo Park Public Works Department's Requirements for the Preparation of Hydrology Reports.

The storm drain calculations for the Site are calculated using the **Rational Method**:

$Q = CxixA$

Where:

Q= flow rate cubic feet per second (cfs)
C=Runoff Coefficient
i= Design Storm Intensity inches per hour (in/hr)
A =Area in Acres

Assumptions:

- Design Storm Event is based on a 10 year – 10 minute storm.
- Rainfall Intensity is derived from City of Menlo Park IDF Curve, see **Exhibit D**
- It is assumed that the max design flow is a 2/3 full pipe

The formula used to calculate the rainfall intensity is the Rain Fall Intensity Equation (based on the City of Menlo Park IDF Curve).

$$I_{10\text{-year}}(\text{in/hr}) = \frac{5.76}{T_C^{0.533}}$$

Where:

T_c=Initial Time of Concentration, Initial Time of Concentration + Flow Time

Using a 10 year return period, the Time of Concentration was calculated for both the existing and proposed conditions. Using the longest path of travel for a water droplet from onsite to the city storm main.

The Hydraulic Grade Line (HGL) was determined using the **Conservation of Energy Calculation**:

$$HGL_{us} + \frac{v_{us}^2}{2g} = HGL_{ds} + \frac{v_{us}^2}{2g} + h_f + h_m$$

Equation 6-22.

where:

HGL_{us} = elevation of the hydraulic grade line at upstream node (ft.)

v_{us} = upstream velocity (fps)

v_{ds} = downstream velocity (ft./s)

h_m = minor (junction/node) head loss (ft.)

h_f = friction head loss (ft.)

HGL_{ds} = elevation of hydraulic grade line at downstream node (ft.)

g = 32.2 ft./ s^2

Pipe Capacity for a pipe was determined using **Manning's Equation**:

$$Q = VA = \left(\frac{1.49}{n}\right) A R^{\frac{2}{3}} \sqrt{S} \quad [U.S.]$$

Where:

Q=Flow Rate (cfs)
A=Cross Sectional Area of Flow (sf)
R=Hydraulic Radius (ft)
S=Slope (ft/ft)
n=Manning's Roughness Coefficient.

Please see **Exhibit A** and **Exhibit B** for calculations.

Per City of Menlo Park Standards, any project that creates more impervious surface compared to the existing condition is required to retain the excess volume of runoff created.

Due to the fact that the project runoff enters the San Mateo County Flood Control and Water Conservation District channel, an EGL/HGL computation analysis is required to ensure that on-site storm drainage structures do not surcharge. Per County and City requirements, freeboard is to be a minimum of 1.25' from top of curb.

Outfall EGL/HGL values (**Exhibit H**) are taken from the Belle Haven Storm Drainage System Calculations, dated 11/14/95 (**Exhibit I**). In order to use the values on the Belle Haven Storm Drainage System Calculations, a conversion factor of -100 feet must be added to all HGL/EGL values, as the Belle Haven calculations had added 100 feet to ensure no negative elevations were encountered. The Belle Haven Storm Drainage System Calculations are on the National Geodetic Vertical Datum of 1929 (NGVD29), a vertical shift of +2.70 feet is added to convert to the North American Vertical Datum of 1988 (NAVD88).

5.0 Summary of Calculations

5.1 24" RCP STORM – CB-1

EXISTING CONDITION

Per record data, the existing 24-inch reinforced concrete pipe (RCP) lateral connecting to CB-1 has a slope of 0.5%. Using Manning's Equation, the 24-inch RCP is estimated to have a full capacity of 14.28 cfs.

There are eight (8) contributing tributary areas to CB-1 per field data, Areas A, B, C, D, E, F, G, H, and I. This results in an existing flow of 3.2 cfs. For more

information on the tributary areas and flow calculations see **Exhibit A**. Table 1 summarizes the capacity analysis for the 24-inch RCP.

PROPOSED CONDITION

The Project proposes to connect to CB-1 for drainage management areas A, A-1.1, A-1.2, A-1.4, A-1.6, A-1.8, A-2.2, and A-11. Post construction flow is decreased to 1.1 cfs at the 24-inch RCP. For more information on the tributary areas and calculations see **Exhibit B**. Table 1 summarizes the post construction capacity analysis for the existing 24-inch RCP at CB-1.

Table 1 – Existing 24-inch RCP at CB-1

Pre-Construction Analysis	
Slope (Assumed)	0.5%
Diameter (in.)	24
Inner Diameter (in.)	23
Roughness Coefficient	0.013
Full Pipe Capacity (cfs)	14.28
2/3 Allowable Pipe Capacity	9.52
Calculated Pre-Connection Flow (cfs)	3.2
Depth of Flow in Pipe (in.)	7.2
Post-Construction Analysis	
Slope	13.5%
Calculated Flow (cfs)	1.1
Depth of Flow in Pipe (in.)	1.0
Available Capacity (cfs)	83.12

5.2 24" RCP STORM – CB-2

EXISTING CONDITION

Per record data, the existing 24-inch RCP lateral connecting to CB-2 has a slope of 2.8%. Using Manning's Equation, the 24-inch RCP is estimated to have a full capacity of 41.19 cfs.

There are three (3) contributing tributary areas to CB-2 per field collected data. Areas I, J, and K. This results in an existing flow of 1.0 cfs. For more information on the tributary areas and flow calculations see **Exhibit A**. Table 2 summarizes the capacity analysis for the 24-inch RCP.

PROPOSED CONDITION

The Project proposes to connect to CB-2 for drainage management areas A-3.1, A-3.2, and A-5.1. Post construction flow is reduced to 0.3 cfs to the 24-inch RCP. For more information on the tributary areas and calculations see **Exhibit B**. Table 2 summarizes the post construction capacity analysis for the existing 24-inch RCP at CB-2.

Table 2 – Existing 24-inch RCP at CB-2

Pre-Construction Analysis	
Slope	2.8%
Diameter (in.)	24
Inner Diameter (in.)	23
Roughness Coefficient	0.013
Full Pipe Capacity (cfs)	41.19
2/3 Allowable Pipe Capacity	27.46
Calculated Pre-Connection Flow (cfs)	1.0
Depth of Flow in Pipe (in.)	2.88
Post-Construction Analysis	
Slope	22.9%
Calculated Flow (cfs)	0.3
Depth of Flow in Pipe (in.)	1.0
Available Capacity (cfs)	108.3

5.3 24" RCP STORM – CB-4

EXISTING CONDITION

Per record data, the existing 24-inch RCP lateral connecting to CB-4 has a slope of 3.2%. Using Manning's Equation, the 24-inch RCP is estimated to have a full capacity of 39.83 cfs.

There are five (5) contributing tributary areas to CB-4 per field data. Areas L, M, N, O, and P. This results in an existing flow of 2.2 cfs. For more information on the tributary areas and flow calculations see **Exhibit A**. Table 3 summarizes the capacity analysis for the 24-inch RCP.

PROPOSED CONDITION

The Project is proposing to connect to CB-4 for drainage management areas A-1.3, A-1.5, A-1.7, A-1.9, A-2.1, A-2.3, A-4.1, A-4.2, A-5.2, A-5.3, A-5.4, A-6.1, A-6.2, A-8, and A-12. Post construction flow is increased to 3.1 cfs to the 24-inch RCP. For more information on the tributary areas and calculations see **Exhibit B**. Table 3 summarizes the post construction capacity analysis for the existing 24-inch RCP at CB-4.

Table 3 – Existing 24-inch RCP at CB-4

Pre-Construction Analysis	
Slope	3.2%
Diameter (inches, (in.))	24
Inner Diameter (in.)	23
Roughness Coefficient	0.013
Full Pipe Capacity (cfs)	39.83
2/3 Allowable Pipe Capacity	26.55
Calculated Pre-Connection Flow (cfs)	2.2
Depth of Flow in Pipe (in.)	4.32
Post-Construction Analysis	
Slope	0.3%
Calculated Flow (cfs)	3.1
Depth of Flow in Pipe (in.)	8.4
Available Capacity (cfs)	12.39

6.0 Conclusion

The proposed project will increase impervious areas from 130,700 square feet to 137,525 square feet **(see Exhibits A & B)**. Additionally due to implementation of flow through planters, bioretention basins, and longer pipe runs, the flow rate decreases because of the increased time of concentration. The existing flow rate, as a sum of CB-1, CB-2, and CB 4 is 6.4 cfs. The post-construction flow rate, as a sum of CB-1, CB-2, and CB-4 is 4.2 cfs. This represents a decrease of 65% (**Exhibits C**).

Therefore, the Project, by design, is not required to provide additional detention since excess runoff volume will not be created.

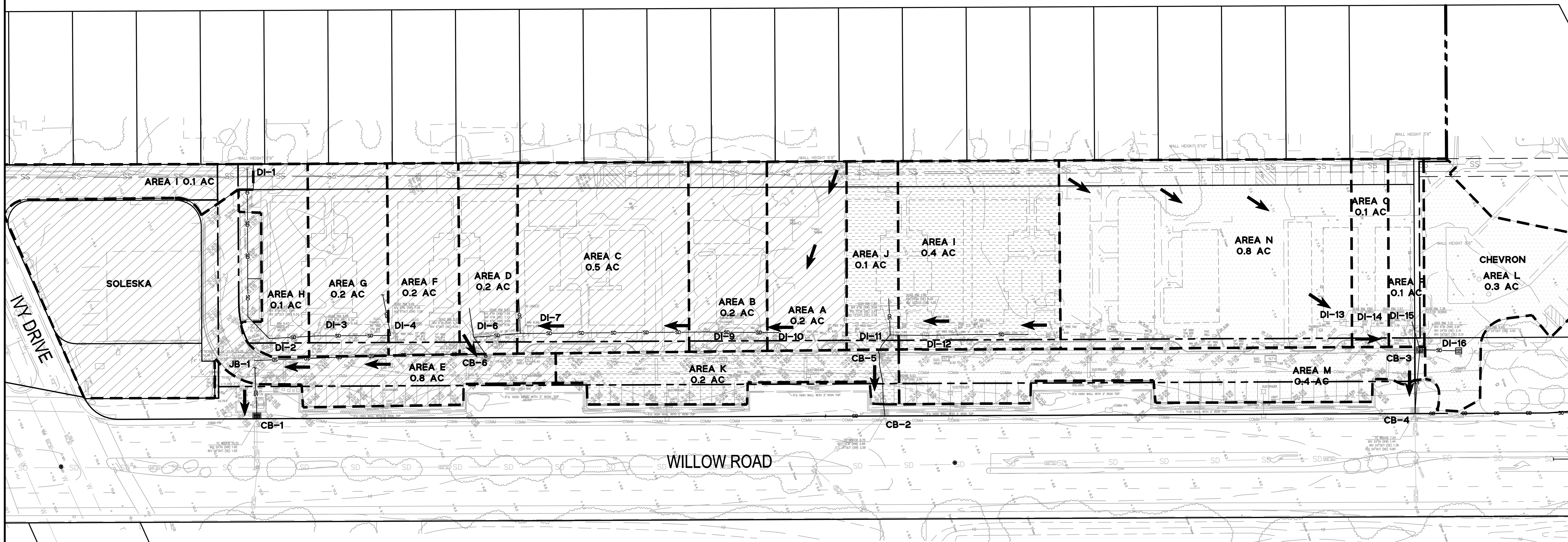
Volume = Q_{Excess} * 10 Min (Design Storm Time of Concentration) * 60 Sec (Unit Conversion)

The smallest freeboard for the proposed is 1.55 feet, not exceeding the minimum 1.25 feet requirement per County and City requirements.

Exhibit A

Existing Drainage Basin Exhibit
And Calculations

© BKF ENGINEERS



LEGEND

(line symbol)	PROPERTY LINE
SD	EXISTING STORM DRAIN LINE
(dashed box)	DRAINAGE AREA
(arrow)	PATH USED TO CALCULATE FOR TIME OF CONCENTRATION
(hatch)	CATCH BASIN 1 DRAINAGE AREA
(hatch)	CATCH BASIN 2 DRAINAGE AREA
(hatch)	CATCH BASIN 4 DRAINAGE AREA

BENCHMARK

A FOUND BRONZE DISK SET IN THE TOP OF A CONCRETE CURB AT THE EASTERLY CURB RETURN OF THE SOUTHERLY CURB LINE OF CONSTITUTION DRIVE, EASTERLY OF JEFFERSON DRIVE (CITY OF MENLO PARK BM#2).

ELEVATION = 7.50 FEET
DATUM – NAVD88

A VERTICAL SHIFT OF ±2.70 FEET WAS APPLIED TO THE RECORD ELEVATION OF MENLO PARK BM#2 IN ORDER TO CONVERT FROM NGVD29 TO NAVD88.

GRAPHIC SCALE SCALE: 1"=40'

40 0 40 80

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MIDPEN GATEWAY FAMILY HOUSING
1345 WILLOW ROAD
EXISTING DRAINAGE BASIN EXHIBIT

MENLO PARK SAN MATEO COUNTY CALIFORNIA

Revisions

No.

Date: 02/25/2019
Scale: 1"=40'
Design: LP
Drawn: LP/SP
Approved: FCG
Job No: 20156154

Drawing Number:

EX1

1 OF 1

EQUATIONS

Rational Equation Calculation:
Q = CIA

Q (Discharge) = Cubic Feet Second
A (Area) = Acre
I (Rainfall Intensity) = inch/hour

Mannings Equation:

$$Q = VA = \left(\frac{1.49}{n}\right) AR^{\frac{2}{3}}\sqrt{S} \quad [U.S.]$$

Q (Flow Rate) = Cubic Feet Per Second
V (Velocity) = Feet Per Second
A (Flow Area) = Square Feet
n (Mannings Roughness Coefficient)
R (Hydraulic Radius) = Feet
S (Channel Slope) = Feet/Feet

Flow Time:
T=(V/L)/60 (seconds/minute)

T (Time) = Minutes
V (Velocity) = Feet Per Second
L (Length) = Feet

STORM DRAINAGE DESIGN FOR PIPE CAPACITY (EXISTING)

LOCATION: 1345 Willow Road

JOB TITLE: GATEWAY FAMILY HOUSING

RAINFALL DATA:
SOURCE: City of Menlo Park IDF Curve

FREQUENCY:

REFER TO DRAWING PLAN: **EX1 "EXISTING DRAINAGE BASIN EXHIBIT"**

PIPE TYPE
RCP n=.013

TIME OF CONCENTRATION:
GUTTER TIME 5 MIN.
INTENSITY 1.70 IN./HR.

RUNOFF COEFFICIENT:

			RATIONAL METHOD							MANNING'S									
Basin or Area	From	To	A, Area (Acres)	C, Runoff Coeff.	Product of (Area x Coeff.)	Sum of products (AC, Area x Coeff.) Incremental	Duration, Min. (Time of Concentr.)	I, Rainfall Intensity Inch / Hour	Runoff, cfs Q=CIA	Length, Feet	Pipe Dia., Inch	Pipe Slope	Area of Pipe / Channel	n	R^(2/3)	Velocity, fps (Flowing Full)	Flow Time, Min	d/D	Capacity, cfs (Flowing 2/3)	Capacity, cfs (Flowing Full)
SD Main Lines																				
A	DI-10	DI-9	0.2	0.75	0.159	0.159	10.00	1.70	0.270	56.5	8	0.010	0.349	0.013	0.30	3.46	0.272	0.49	0.81	1.21
B	DI-9	DI-7	0.2	0.75	0.157	0.316	10.27	1.66	0.526	146	8	0.010	0.349	0.013	0.30	3.46	0.703	0.66	0.81	1.21
C	DI-7	DI-6	0.5	0.75	0.348	0.664	10.97	1.61	1.067	37	8	0.020	0.349	0.013	0.30	4.90	0.126	0.59	1.14	1.71
D	DI-6	CB-6	0.2	0.75	0.117	0.781	11.10	1.60	1.247	18	8	0.028	0.349	0.013	0.30	5.82	0.052	0.59	1.36	2.03
E	CB-6	JB-1	0.8	0.90	0.720	1.501	11.23	1.59	2.382	179	12	0.010	0.785	0.013	0.40	4.54	0.658	0.59	2.38	3.56
	JB-1	**CB-1**	0.0	0.00	0.000	1.501	**11.28**	1.58	2.376	45	23	0.005	2.885	0.013	0.61	4.95	0.152	0.59	9.52	14.28
F	DI-4	DI-3	0.2	0.75	0.145	0.145	10.00	1.70	0.246	57	8	0.033	0.349	0.013	0.30	6.29	0.151	0.59	1.46	2.20
G	DI-3	DI-2	0.2	0.75	0.163	0.308	10.15	1.67	0.515	38	6	0.034	0.196	0.013	0.25	5.27	0.120	0.80	0.69	1.03
H	DI-2	JB-1	0.1	0.80	0.115	0.422	10.27	1.66	0.703	20	12	0.010	0.785	0.013	0.40	4.54	0.073	0.46	2.38	3.56
	JB-1	**CB-1**	0.0	0.00	0.000	0.422	10.34	1.66	0.700	45	23	0.005	2.885	0.013	0.61	4.95	0.152	0.46	9.52	14.28
I	DI-1	DI-2	0.1	0.90	0.119	0.119	10.00	1.70	0.203	62	12	0.010	0.785	0.013	0.40	4.54	0.228	0.49	2.38	3.56
H	DI-2	JB-1	0.1	0.80	0.115	0.234	10.23	1.67	0.391	20	12	0.010	0.785	0.013	0.40	4.54	0.073	0.46	2.38	3.56
	JB-1	**CB-1**	0.0	0.00	0.000	0.234	10.30	1.66	0.389	45	23	0.005	2.885	0.013	0.61	4.95	0.152	0.46	9.52	14.28

Sumary Table of Off-Site Conditions Using Manning's Equation

Off-Site Runoff Location	CB-1
I, Inch/ Hour (Based on Longest Tc)	1.58
C, Runoff Coeff (Weighted)	0.81
A, Area, Acre	2.5
Runoff, Q = CIA, cfs	**3.2**

Time of Concentration: **11.28 Min**

Storm Intensity at Tc **1.58 Inch/Hour**

STORM DRAINAGE DESIGN FOR PIPE CAPACITY (EXISTING)

LOCATION: 1345 Willow Road

JOB TITLE: GATEWAY FAMILY HOUSING

RAINFALL DATA:
SOURCE: City of Menlo Park IDF Curve

FREQUENCY:

REFER TO DRAWING PLAN: **EX1 "EXISTING DRAINAGE BASIN EXHIBIT"**

PIPE TYPE
RCP n=.013

TIME OF CONCENTRATION:
GUTTER TIME 5 MIN.
INTENSITY 1.70 IN./HR.

RUNOFF COEFFICIENT:

RATIONAL METHOD										MANNING'S											
Basin or Area	From	To	A, Area (Acres)	C, Runoff Coeff.	Product of (Area x Coeff.)	Sum of products (AC, Area x Coeff.) Incremental	Duration, Min. (Time of Concentr.)	I, Rainfall Intensity Inch / Hour	Runoff, cfs Q=CIA	Length, Feet	Pipe Dia., Inch	Pipe Slope	Area of Pipe / Channel	n	R^(2/3)	Velocity, fps (Flowing Full)	Flow Time, Min	d/D	Capacity, cfs (Flowing 2/3)	Capacity, cfs (Flowing Full)
SD Main Lines																					
I	DI-12	DI-11	0.4	0.70	0.301	0.301	10.00	1.70	0.511	28	12	0.010	0.785	0.013	0.40	4.54	0.103	0.46	2.38	3.56
J	DI-11	CB-5	0.1	0.70	0.099	0.399	10.10	1.68	0.671	17	12	0.034	0.785	0.013	0.40	8.36	0.034	0.59	4.38	6.57
K	CB-5	**CB-2**	0.2	0.90	0.180	0.579	10.14	1.68	**0.971**	48	24	0.028	3.400	0.013	0.63	12.11	0.066	0.80	27.46	41.19

Sumary Table of Off-Site Conditions Using Manning's Equation

Off-Site Runoff Location	CB-2
I, Inch/ Hour (Based on Longest Tc)	1.68
C, Runoff Coeff (Weighted)	0.75
A, Area, Acre	0.8
Runoff, Q = CIA, cfs	**1.0**

Time of Concentration: **10.14 Min**

Storm Intensity at Tc 10.13 **1.68 Inch/Hour**

STORM DRAINAGE DESIGN FOR PIPE CAPACITY (EXISTING)

LOCATION: 1345 Willow Road

JOB TITLE: GATEWAY FAMILY HOUSING

RAINFALL DATA:
SOURCE: City of Menlo Park IDF Curve

FREQUENCY:

REFER TO DRAWING PLAN: EX1 "EXISTING DRAINAGE BASIN EXHIBIT"

PIPE TYPE
RCP n=.013

TIME OF CONCENTRATION:
GUTTER TIME 5 MIN.
INTENSITY 1.70 IN./HR.
RUNOFF COEFFICIENT:

RATIONAL METHOD										MANNING'S											
Basin or Area	From	To	A, Area (Acres)	C, Runoff Coeff.	Product of (Area x Coeff.)	Sum of products (AC, Area x Coeff.) Incremental	Duration, Min. (Time of Concentr.)	I, Rainfall Intensity Inch / Hour	Runoff, cfs Q=CIA	Length, Feet	Pipe Dia., Inch	Pipe Slope	Area of Pipe / Channel	n	R^(2/3)	Velocity, fps (Flowing Full)	Flow Time, Min	d/D	Capacity, cfs (Flowing 2/3)	Capacity, cfs (Flowing Full)
SD Main Lines																					
L	DI-16	CB-3	0.300	0.80	0.240	0.240	10.00	1.70	0.408	31	24	0.022	3.142	0.013	0.63	10.68	0.048	0.23	22.37	33.55
M	CB-3	CB-4	0.400	0.90	0.360	0.600	10.05	1.68	1.010	48	24	0.031	3.142	0.013	0.63	12.68	0.063	0.23	26.55	39.83
N	DI-13	DI-14	0.800	0.70	0.560	0.560	10.00	1.70	0.952	25	8	0.010	0.349	0.013	0.30	3.46	0.120	0.46	0.81	0.81
O	DI-14	DI-15	0.100	0.70	0.070	0.630	10.12	1.68	1.057	24	8	0.010	0.349	0.013	0.30	3.46	0.116	0.56	0.81	0.81
P	DI-15	CB-3	0.100	0.70	0.070	0.700	10.24	1.67	1.167	23	8	0.010	0.349	0.013	0.30	3.46	0.111	0.56	0.81	0.81
M	CB-3	CB-4	0.400	0.90	0.360	1.060	**10.35**	1.66	1.757	48	8	0.032	0.349	0.013	0.30	6.19	0.129	0.56	1.44	1.44

Sumary Table of Off-Site Conditions Using Manning's Equation

Off-Site Runoff Location	CB-4
I, Inch/ Hour (Based on Longest Tc)	1.66
C, Runoff Coeff (Weighted)	0.79
A, Area, Acre	1.7
Runoff, Q = CIA, cfs	**2.2**

Time of Concentration: 10.35 Min

Storm Intensity at Tc 10.13 1.66 Inch/Hour

Exhibit B

Proposed Drainage Basins Exhibit
And Calculations

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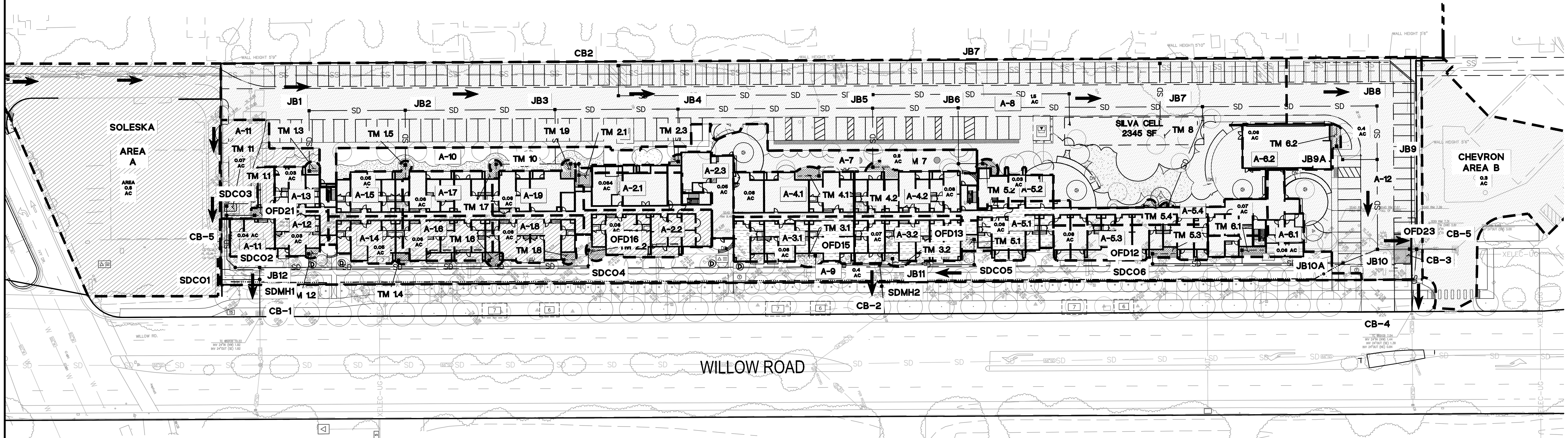

BENCHMARK

A FOUND BRONZE DISK SET IN THE TOP OF A CONCRETE CURB AT THE EASTERLY CURB RETURN OF THE SOUTHERLY CURB LINE OF CONSTITUTION DRIVE, EASTERLY OF JEFFERSON DRIVE (CITY OF MENLO PARK BM#2).

ELEVATION = 7.50 FEET
DATUM – NAVD88

A VERTICAL SHIFT OF ±2.70 FEET WAS APPLIED TO THE RECORD ELEVATION OF MENLO PARK BM#2 IN ORDER TO CONVERT FROM NGVD29 TO NAVD88.

LEGEND

- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- DRAINAGE AREA
- PATH USED TO CALCULATE FOR TIME OF CONCENTRATION
- CATCH BASIN 1 DRAINAGE AREA
- CATCH BASIN 2 DRAINAGE AREA
- CATCH BASIN 4 DRAINAGE AREA

GRAPHIC SCALE SCALE: 1"=40'

40 0 40 80

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MIDPEN GATEWAY FAMILY HOUSING
1345 WILLOW ROAD
PROPOSED DRAINAGE BASIN EXHIBIT

MENLO PARK SAN MATEO COUNTY CALIFORNIA

Revisions	
No.	
Date: 02/25/2019	
Scale: 1"=40'	
Design: LP	
Drawn: LP/SP	
Approved: FCG	
Job No: 20156154	

Drawing Number:

EX2

1 OF 1

STORM DRAINAGE DESIGN FOR PIPE CAPACITY (PROPOSED)

LOCATION: 1345 Willow Road

JOB TITLE: Gateway Family Housing

RAINFALL DATA:
SOURCE: City of Menlo Park IDF Curve

FREQUENCY:

REFER TO DRAWING PLAN: **EX2 "PROPOSED DRAINAGE BASIN EXHIBIT"**

PIPE TYPE
RCP n=.013

TIME OF CONCENTRATION:
GUTTER TIME 5 MIN.
INTENSITY 1.70 IN./HR.
RUNOFF COEFFICIENT:

RATIONAL METHOD									MANNINGS											
Basin or Area	From	To	A, Area (Acres)	C, Runoff Coeff.	Product of (Area x Coeff.)	Sum of products (AC, Area x Coeff.) Incremental	Duration, Min. (Time of Concentr.)	I, Rainfall Intensity Inch / Hour	Runoff, cfs Q=CIA	Length, Feet	Pipe Dia., Inch	Pipe Slope %	Area of Pipe / Channel	n	R^(2/3)	Velocity, fps (Flowing Full)	Flow Time, Min	d/D	Capacity, cfs (Flowing 2/3)	Capacity, cfs (Flowing Full)
SD Main Lines																				
A	CB-5	SDCO1	0.60	0.90	0.540	0.540	10.00	1.70	0.918	25	12	0.039	0.785	0.013	0.40	8.96	0.047	0.61	4.69	7.04
	SDCO1	SDMH1	0.00	0.00	0.000	0.540	10.05	1.68	0.909	31	12	0.039	0.785	0.013	0.40	8.96	0.058	0.36	4.69	7.04
	SDMH1	CB-1	0.00	0.00	0.000	0.540	10.05	1.68	0.907	29	24	0.135	3.142	0.013	0.63	26.46	0.018	0.36	55.41	83.12
A-1.1	OFD21	SDCO3	0.04	0.85	0.034	0.034	10.00	1.70	0.058	22	8	0.120	0.349	0.013	0.30	11.99	0.031	0.43	2.79	4.19
A-11	SDCO3	SDCO2	0.07	0.90	0.063	0.097	10.03	1.69	0.163	44	8	0.005	0.349	0.013	0.30	2.45	0.300	0.43	0.57	0.85
	SDCO2	JB12	0.00	0.00	0.000	0.097	10.33	1.66	0.161	19	8	0.005	0.349	0.013	0.30	2.45	0.129	0.61	0.57	0.85
	JB12	SDMH1	0.00	0.00	0.000	0.097	10.46	1.65	0.160	10	12	0.135	0.785	0.013	0.40	16.67	0.010	0.36	8.73	13.09
	SDMH1	CB-1	0.00	0.90	0.000	0.097	10.46	1.65	0.160	29	24	0.135	3.142	0.013	0.63	26.46	0.018	0.36	55.41	83.12
A-2.2	OFD16	SDCO4	0.08	0.85	0.068	0.068	10.00	1.70	0.116	13	8	0.010	0.349	0.013	0.30	3.46	0.063	0.43	0.81	1.21
A-1.8 A-1.6 A-1.4 A-1.2	SDCO4	SDCO2	0.20	0.85	0.170	0.238	10.06	1.68	0.400	259	12	0.010	0.785	0.013	0.40	4.54	0.952	0.43	2.38	3.56
	JB12	SDMH1	0.00	0.00	0.000	0.238	11.01	1.60	0.382	10	12	0.135	0.785	0.013	0.40	16.67	0.010	0.61	8.73	13.09
1	SDMH1	CB-1	0.00	0.90	0.000	0.238	**11.02**	1.60	0.381	29	24	0.135	3.142	0.013	0.63	26.46	0.018	0.36	55.41	83.12

Sumary Table of Off-Site Conditions Using Manning's Equation

Off-Site Runoff Location	**CB-1**
I, Inch/ Hour (Based on Longest Tc)	1.60
C, Runoff Coeff (Weighted)	0.88
A, Area, Acre	0.8
Runoff, Q = CIA, cfs	**1.1**

Time of Concentration: **11.02 Min**

Storm Intensity at Tc 10.13 **1.60 Inch/Hour**

STORM DRAINAGE DESIGN FOR PIPE CAPACITY (PROPOSED)

LOCATION: 1345 Willow Road

JOB TITLE: Gateway Family Housing

RAINFALL DATA:
SOURCE: City of Menlo Park IDF Curve

FREQUENCY:

PIPE TYPE
RCP n=.013

TIME OF CONCENTRATION:
GUTTER TIME 5 MIN.
INTENSITY 1.70 IN./HR.
RUNOFF COEFFICIENT:

REFER TO DRAWING PLAN: **EX2 "PROPOSED DRAINAGE BASIN EXHIBIT"**

RATIONAL METHOD									MANNINGS											
Basin or Area	From	To	A, Area (Acres)	C, Runoff Coeff.	Product of (Area x Coeff.)	Sum of products (AC, Area x Coeff.) Incremental	Duration, Min. (Time of Concentr.)	I, Rainfall Intensity Inch / Hour	Runoff, cfs Q=CIA	Length, Feet	Pipe Dia., Inch	Pipe Slope %	Area of Pipe / Channel	n	R^(2/3)	Velocity, fps (Flowing Full)	Flow Time, Min	d/D	Capacity, cfs (Flowing 2/3)	Capacity, cfs (Flowing Full)
SD Main Lines																				
A-5.1	OFD13	SDCO5	0.06	0.85	0.051	0.051	10.00	1.70	0.087	20	8	0.056	0.349	0.013	0.30	8.19	0.041	0.61	1.91	2.86
A-3.2	SDCO5	JB11	0.07	0.85	0.060	0.111	10.04	1.68	0.186	74	12	0.010	0.785	0.013	0.40	4.54	0.272	0.36	2.38	3.56
	JB11	SDMH2	0.00	0.85	0.000	0.111	10.31	1.66	0.184	17	12	0.020	0.785	0.013	0.40	6.42	0.044	0.36	3.36	5.04
	SDMH2	CB-2	0.00	0.85	0.000	0.111	**10.36**	1.66	0.183	25	24	0.229	3.142	0.013	0.63	34.46	0.012	0.36	72.17	108.3
A-3.1	OFD15	JB11	0.08	0.85	0.068	0.068	10.00	1.70	0.116	58	8	0.015	0.349	0.013	0.30	4.24	0.228	0.61	0.99	1.48
1	JB11	SDMH2	0.00	0.00	0.000	0.068	10.23	1.67	0.113	17	12	0.020	0.785	0.013	0.40	6.42	0.044	0.36	3.36	5.04
1	SDMH2	CB-2	0.00	0.00	0.000	0.068	10.23	1.66	0.113	25	24	0.229	3.142	0.013	0.63	34.46	0.012	0.36	72.17	108.3

Sumary Table of Off-Site Conditions Using Manning's Equation

Off-Site Runoff Location	**CB-2**
I, Inch/ Hour (Based on Longest Tc)	1.66
C, Runoff Coeff (Weighted)	0.85
A, Area, Acre	0.21
Runoff, Q = CIA, cfs	**0.3**

Time of Concentration: **10.36 Min**

Storm Intensity at Tc 10.13 **1.66 Inch/Hour**

STORM DRAINAGE DESIGN FOR PIPE CAPACITY (PROPOSED)

LOCATION: 1345 Willow Road

JOB TITLE: Gateway Family Housing

RAINFALL DATA:
SOURCE: City of Menlo Park IDF Curve

FREQUENCY:

PIPE TYPE
RCP n=.013

TIME OF CONCENTRATION:
GUTTER TIME 5 MIN.
INTENSITY 1.70 IN./HR.
RUNOFF COEFFICIENT:

REFER TO DRAWING PLAN: **EX2 "PROPOSED DRAINAGE BASIN EXHIBIT"**

RATIONAL METHOD									MANNINGS											
Basin or Area	From	To	A, Area (Acres)	C, Runoff Coeff.	Product of (Area x Coeff.)	Sum of products (AC, Area x Coeff.) Incremental	Duration, Min. (Time of Concentr.)	I, Rainfall Intensity Inch / Hour	Runoff, cfs Q=CIA	Length, Feet	Pipe Dia., Inch	Pipe Slope %	Area of Pipe / Channel	n	R^(2/3)	Velocity, fps (Flowing Full)	Flow Time, Min	d/D	Capacity, cfs (Flowing 2/3)	Capacity, cfs (Flowing 2/3)
SD Main Lines																				
A-1.3	JB1	JB2	0.05	0.85	0.043	0.043	10.00	1.70	0.072	76	8	0.005	0.349	0.013	0.30	2.45	0.517	0.29	0.57	0.85
A-1.5	JB2	JB3	0.18	0.85	0.156	0.199	10.52	1.64	0.327	117	8	0.005	0.349	0.013	0.30	2.45	0.797	0.43	0.57	0.85
A-1.7 A-1.9 A-2.1	JB3	JB4	0.18	0.85	0.153	0.352	11.31	1.58	0.557	96	12	0.005	0.785	0.013	0.40	3.21	0.499	0.43	1.68	2.52
A-2.3	JB4	JB5	0.05	0.85	0.043	0.395	11.81	1.54	0.610	153	12	0.005	0.785	0.013	0.40	3.21	0.795	0.61	1.68	2.52
A-4.1 A-4.2	JB5	JB6	0.16	0.85	0.136	0.531	12.61	1.49	0.792	67	12	0.005	0.785	0.013	0.40	3.21	0.348	0.36	1.68	2.52
A-5.2	JB6	JB7	0.03	0.85	0.026	0.556	12.96	1.47	0.818	193	12	0.013	0.785	0.013	0.40	5.17	0.622	0.43	2.71	4.06
A-5.4 A-8	JB7	JB8	1.50	0.85	1.275	1.831	13.58	1.43	2.626	137	12	0.003	0.785	0.013	0.40	2.48	0.919	0.43	1.30	1.95
	JB8	JB9	0.00	0.00	0.000	1.831	14.50	1.39	2.536	42	12	0.003	0.785	0.013	0.40	2.48	0.282	0.61	1.30	1.95
A-6.2	JB9	JB10	0.06	0.85	0.051	1.883	14.78	1.37	2.581	71	12	0.003	0.785	0.013	0.40	2.48	0.476	0.36	1.30	1.95
	JB10	OFD23	0.00	0.00	0.000	1.883	15.25	1.35	2.538	25	12	0.003	0.785	0.013	0.40	2.48	0.168	1.36	1.30	1.95
A-12	OFD23	CB3	0.40	0.80	0.320	2.203	15.42	1.34	2.952	6	12	0.003	0.785	0.013	0.40	2.48	0.040	1.36	1.30	1.95
	CB3	CB4	0.00	0.00	0.000	2.203	15.46	1.34	2.948	49	24	0.003	3.142	0.013	0.63	3.94	0.207	1.36	8.26	12.39
A-5.3	OFD12	SDCO6	0.08	0.85	0.068	0.068	10.00	1.70	0.116	8	8	0.700	0.349	0.013	0.30	28.96	0.005	0.43	6.74	10.11
	SDCO6	JB10A	0.00	0.00	0.000	0.068	10.00	1.69	0.115	150	8	0.010	0.349	0.013	0.30	3.46	0.722	0.61	0.81	1.21
A-6.1	JB10A	JB10	0.14	0.85	0.119	0.187	10.73	1.63	0.304	29	8	0.014	0.349	0.013	0.30	4.10	0.118	0.36	0.95	1.43
	JB10	OFD23	0.00	0.00	0.000	0.187	10.84	1.62	0.302	25	12	0.003	0.785	0.013	0.40	2.48	0.168	1.36	1.30	1.95
A-12	OFD23	CB3	0.40	0.80	0.320	0.507	11.01	1.60	0.813	6	12	0.003	0.785	0.013	0.40	2.48	0.040	1.36	1.30	1.95
	CB3	CB4	0.00	0.00	0.000	0.507	11.05	1.60	0.811	49	24	0.003	3.142	0.013	0.63	3.94	0.207	1.36	8.26	12.39
B	CB5	CB3	0.30	0.80	0.240	0.240	10.00	1.70	0.408	25	24	0.003	3.142	0.013	0.63	3.94	0.106	1.36	8.26	12.39
	CB3	CB4	0.00	0.00	0.000	0.240	10.11	1.68	0.403	49	24	0.003	3.142	0.013	0.63	3.94	0.207	2.36	8.26	12.39

Sumary Table of Off-Site Conditions Using Manning's Equation

Off-Site Runoff Location	**CB-4**
I, Inch/ Hour	1.34
C, Runoff Coeff (Weighted)	0.83
A, Area, Acre	2.7
Runoff, Q = CIA, cfs	**3.1**

Time of Concentration: **15.46 Min**
Storm Intensity at Tc 10.13 **1.34 Inch/Hour**

Exhibit C

HGL Calculations

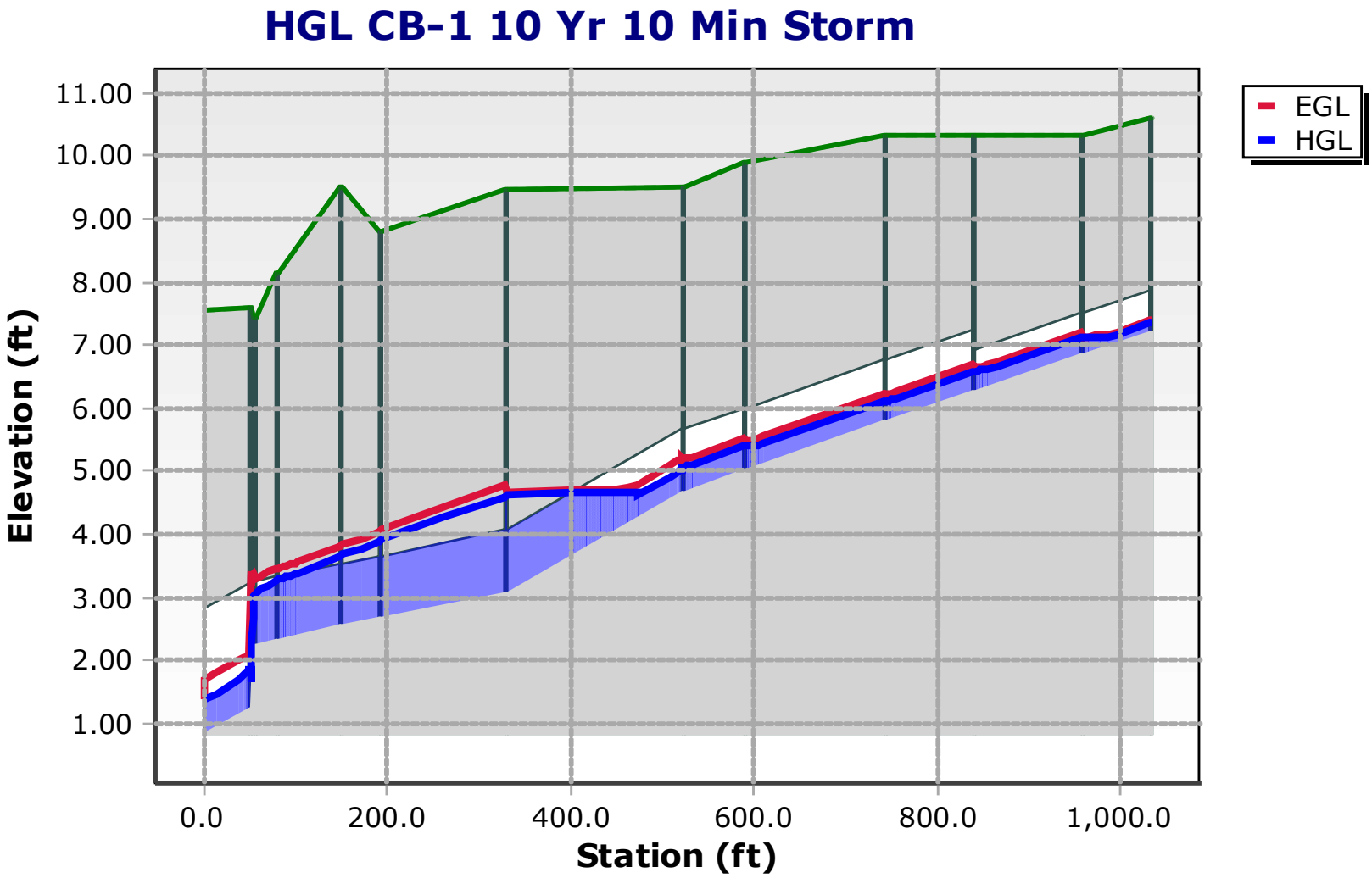
HGL - STORM DRAINAGE DESIGN

LOCATION: 1345 Willow Road

JOB TITLE: Gateway Family Housing
STRUCTURE: CB-1

Structure #	Pipe #	Pipe Size (inches)	Pipe Length (feet)	Pipe Slope (ft/ft)[1]	Pipe Roughness (Mannings n)	Invert Elevation Start	Ground/Rim Elevation	HGL Elevation [4]	**Freeboard [2] (feet)**	Depth of Flow in Pipe (feet)	Velocity (ft/s)
OFD16						9.81	12.8	9.97	**2.83**	0.16	
	4	8	13	0.010	0.013						2.22
SDCO4						9.68	11.5	9.95	**1.55**	0.27	
	3	12	259	0.011	0.013						3.07
JB12						6.94	11	7.26	**3.74**	0.32	
	2	12	9	0.137	0.013						8.22
SDMH1						5.67	10.91	6.08	**4.83**	0.41	
	1	24	28	0.136	0.013						9.98
CB-1 (To Willow)						1.82	10.22	1.14	**9.08**	-0.68	

Notes
(1) ft = feet, cfs = cubic feet per second, ft/s = feet per second
(2) Freeboard is HGL (Hydraulic Grade Line) below Rim of the Structure
(3) Discharge is from the Rational Method, Q = CIA
(4) Tailwater set to the HGL derived from Table 5 Belle Haven Report


HGL CB-1 10 Yr 10 Min Storm
Elevation (ft)
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.0
200.0
400.0
600.0
800.0
1,000.0
Station (ft)
EGL
HGL

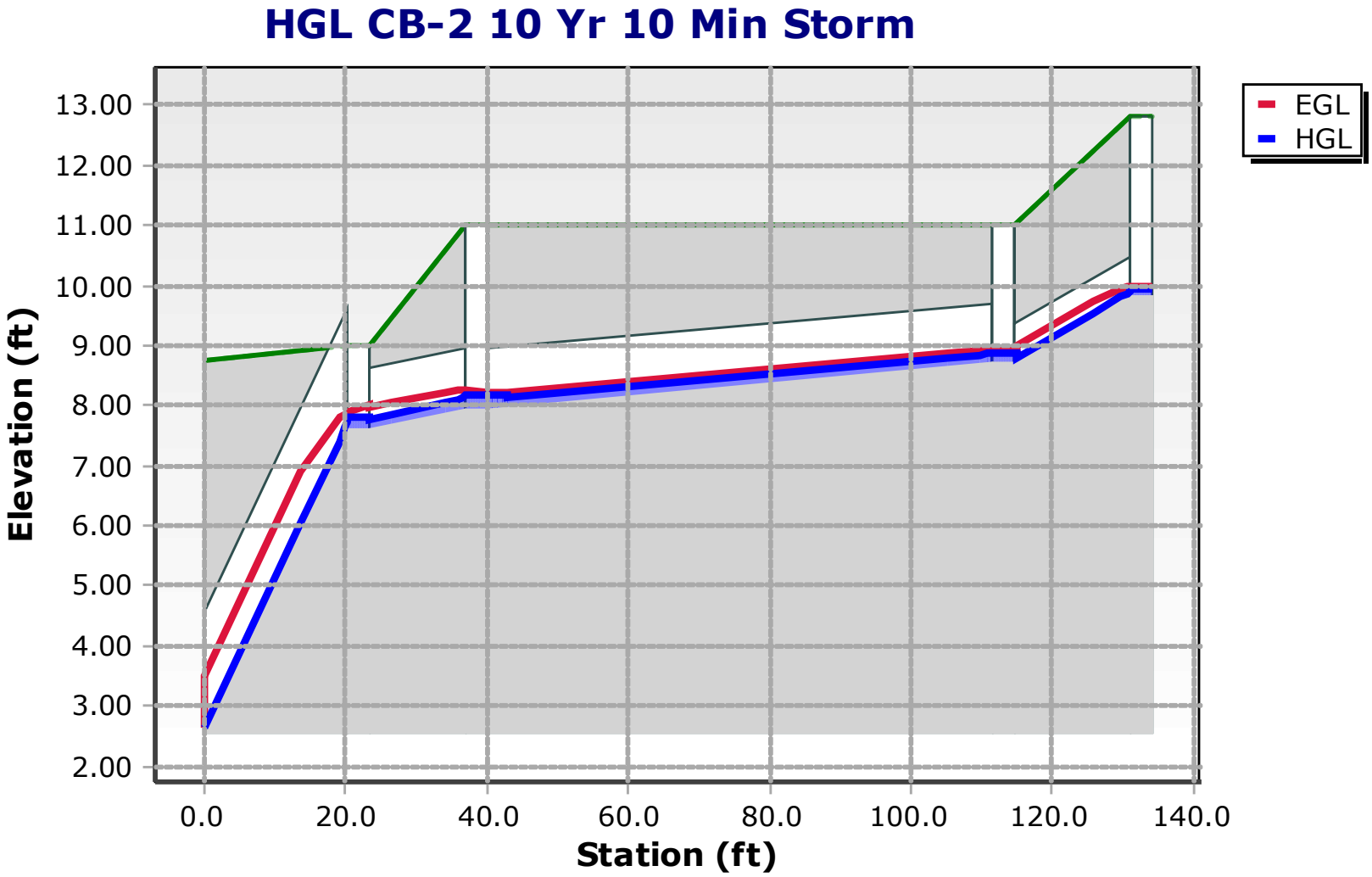
HGL - STORM DRAINAGE DESIGN

LOCATION: 1345 Willow Road

JOB TITLE: Gateway Family Housing
STRUCTURE: CB-2

Structure #	Pipe #	Pipe Size (inches)	Pipe Length (feet)	Pipe Slope (ft/ft)[1]	Pipe Roughness (Mannings n)	Invert Elevation Start	Ground/Rim Elevation	HGL Elevation [4]	**Freeboard [2] (feet)**	Depth of Flow in Pipe (feet)	Velocity (ft/s)
OFD13						9.81	12.81	9.94	**2.87**	0.13	
	1	8	20	0.057	0.013						3.7
SDCO5						8.70	11	8.88	**2.12**	0.18	
	2	12	75	0.010	0.013						2.41
JB11						7.95	11	8.18	**2.82**	0.23	
	3	12	17	0.020	0.013						3.5
SDMH2						7.62	9	7.81	**1.19**	0.19	
	4	24	22	0.232	0.013						7.49
CB-2 (To Willow)						2.56	8.76	1.14	**7.62**	-1.42	

Notes
(1) ft = feet, cfs = cubic feet per second, ft/s = feet per second
(2) Freeboard is HGL (Hydraulic Grade Line) below Rim of the Structure
(3) Discharge is from the Rational Method, Q = CIA
(4) Tailwater set to the HGL derived from Table 5 Belle Haven Report


HGL CB-2 10 Yr 10 Min Storm
Elevation (ft)
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
Station (ft)
EGL
HGL

HGL - STORM DRAINAGE DESIGN

LOCATION: 1345 Willow Road

JOB TITLE: Gateway Family Housing
STRUCTURE: CB-4

Structure #	Pipe #	Pipe Size (inches)	Pipe Length (feet)	Pipe Slope (ft/ft)[1]	Pipe Roughness (Mannings n)	Invert Elevation Start	Ground/Rim Elevation	HGL Elevation [4]	**Freeboard [2] (feet)**	Depth of Flow in Pipe (feet)	Velocity (ft/s)
JB1						7.22	10.6	7.35	**3.25**	0.13	
	1	8	76	0.005	0.013						1.5
JB2						6.84	10.33	7.14	**3.19**	0.30	
	2	8	118	0.005	0.013						2.26
JB3						6.26	10.33	6.59	**3.74**	0.33	
	3	12	97	0.005	0.013						2.56
JB4						5.78	10.33	6.12	**4.21**	0.34	
	4	12	153	0.005	0.013						2.64
JB5						5.01	9.9	5.41	**4.49**	0.40	
	5	12	67	0.005	0.013						2.8
JB6						4.68	9.52	5.07	**4.45**	0.39	
	6	12	192	0.008	0.013						3.42
JB7						3.08	9.47	4.64	**4.83**	1.56	
	7	12	137	0.003	0.013						3.22
JB8						2.67	8.8	3.91	**4.89**	1.24	
	8	12	42	0.003	0.013						3.14
JB9						2.54	9.5	3.68	**5.82**	1.14	
	9	12	71	0.003	0.013						3.29
JB10						2.33	8.15	3.28	**4.87**	0.95	
	10	12	25	0.003	0.013						3.45
OFD23						2.26	7.61	3.07	**4.54**	0.81	
	11	12	5	0.191	0.013						15.5
CB-3						1.23	7.45	1.86	**5.59**	0.63	
	12	24	49	0.008	0.013						4.68
CB-4 (To Willow)						0.84	7.54	1.14	**6.40**	0.30	

Notes
(1) ft = feet, cfs = cubic feet per second, ft/s = feet per second
(2) Freeboard is HGL (Hydraulic Grade Line) below Rim of the Structure
(3) Discharge is from the Rational Method, Q = CIA
(4) Tailwater set to the HGL derived from Table 5 Belle Haven Report

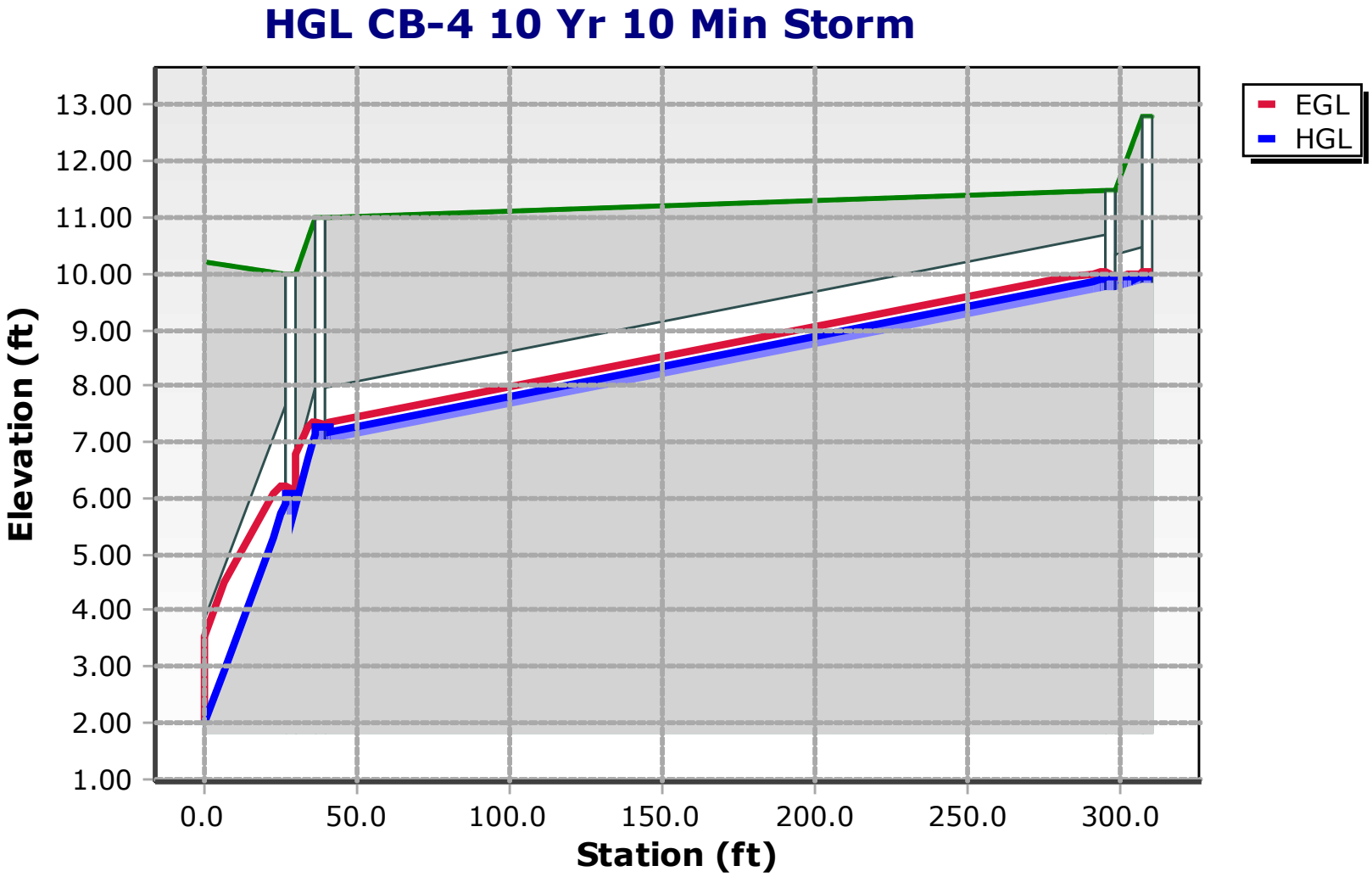
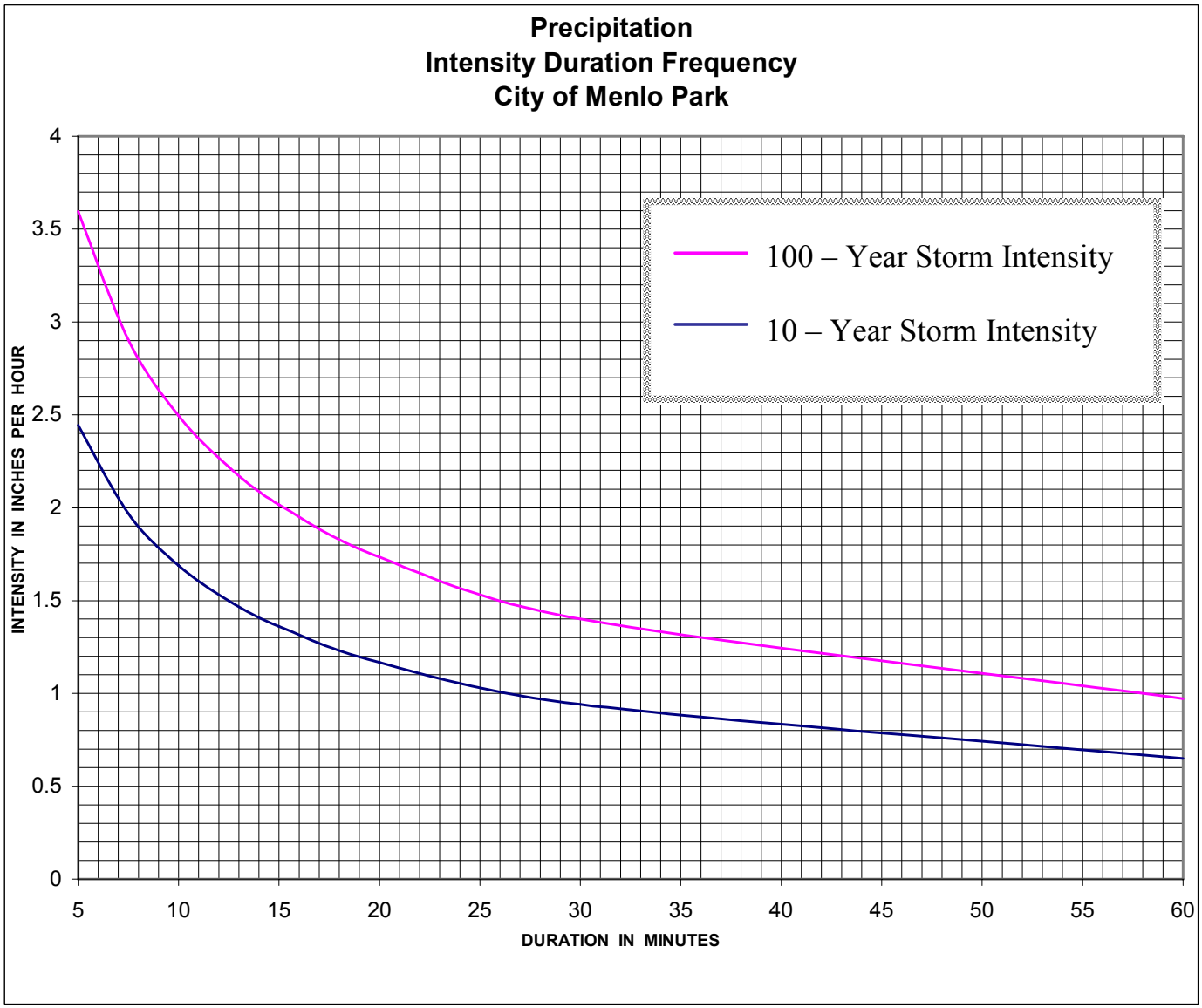

HGL CB-4 10 Yr 10 Min Storm
Elevation (ft)
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.0
50.0
100.0
150.0
200.0
250.0
300.0
Station (ft)
EGL
HGL

Exhibit D

City of Menlo Park IDF Curve



Station	Statio No	County	Lat	Long.	Elev.	Source	Yrs Rec	Slope	Intercept
Menlo Park	E70 553 20	San Mateo	37.451	-122.186		USGS	5	0.462	0.439

CITY OF MENLO PARK STANDARD DETAILS

NO.	REVISIONS	DATE

ATTACHMENT C
MENLO PARK IDF CURVE

APPROVED

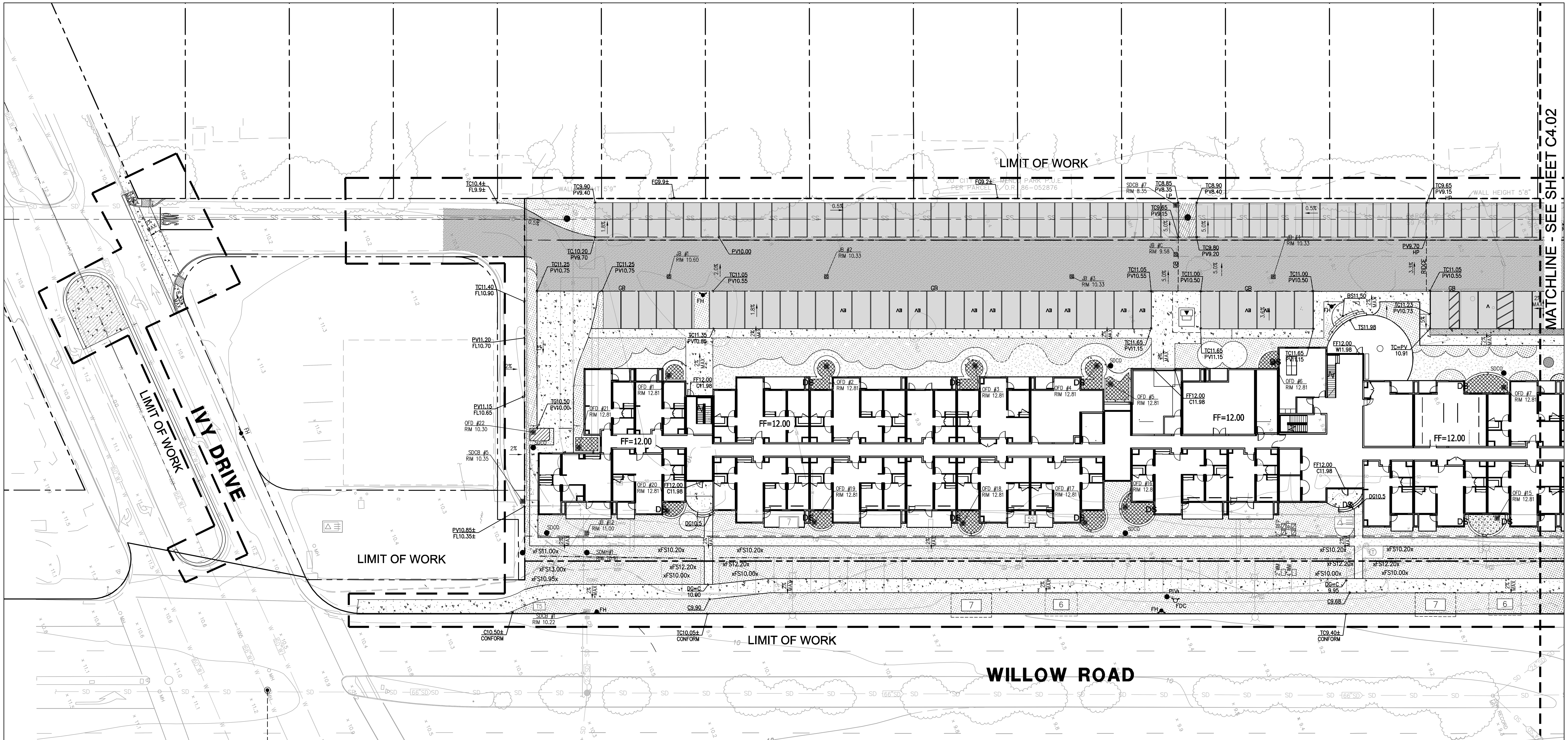
Director of Engineering Services R.C.E. No.40998

DRAWN	CHECKED	DATE	SCALE	SHEET
DL	PS	07/30/06	NTS	

STD. DETAIL No.: IDF

Exhibit E

Project Grading and Drainage Plans



CONSTRUCTION KEY NOTES

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BS	BOTTOM OF STEP
C	CONCRETE
DN	DOWN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
GB	GRADE BREAK
L/S	LANDSCAPE
N.T.S.	NOT TO SCALE
O.R.	OFFICIAL RECORD
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PV	PAVEMENT
RD	ROAD
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
S/W	SIDEWALK
TC	TOP OF CURB
TS	TOP OF STEP
W	WOOD

SHEET NOTES

1. PER CALIFORNIA BUILDING CODE (CBC) §1804.A3 REQUIRES A MINIMUM 5% SLOPE ON LANDSCAPE, AND 2% SLOPE ON PAVEMENT WITHIN 10 FEET OF THE BUILDING UNLESS INTERCEPTED BY A SWALE.
2. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ALL DIRECTIONS. ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 5% IN THE DIRECTION OF TRAVEL AND THE SLOPE CROSSWAYS TO THE DIRECTION OF TRAVEL SHALL BE AT A MAXIMUM OF 2%. ANY ACCESSIBLE PATHS THAT SLOPE MORE THAN 5% SHALL HAVE A HANDRAIL UP TO 8.33%. NO ACCESSIBLE PATHS SHALL SLOPE GREATER THAN 8.33%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER/ARCHITECT PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK, FORM WORK AND/OR FLATWORK.
3. SEE CURB RAMP DETAILS ON SHEET C7.01
4. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT ARE IN CONTACT WITH EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE–TREATED WOOD PER CBC 2304.12.1.2.

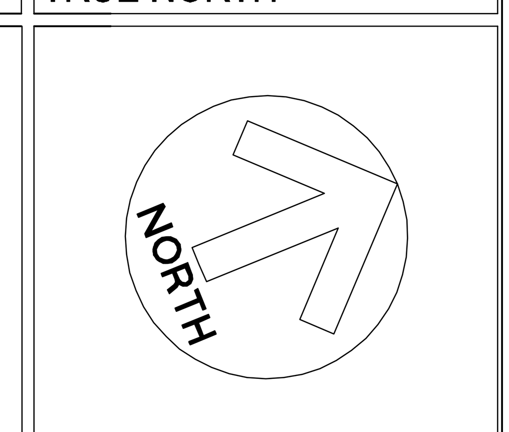
FEMA STATEMENT

THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- OVERLAND RELEASE

TRUE NORTH



GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

ORIGINAL SHEET SIZE 30" X 42"

MITHŪN

SEATTLE / Pier 56, 1201 Alaskan Way, #200
Seattle, WA 98101 / 206.623.3344

SAN FRANCISCO / 660 Market Street, #300
San Francisco, CA 94104 / 415.956.0688

BKF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS
1730 N. FIRST STREET,
SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
www.bkf.com

PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

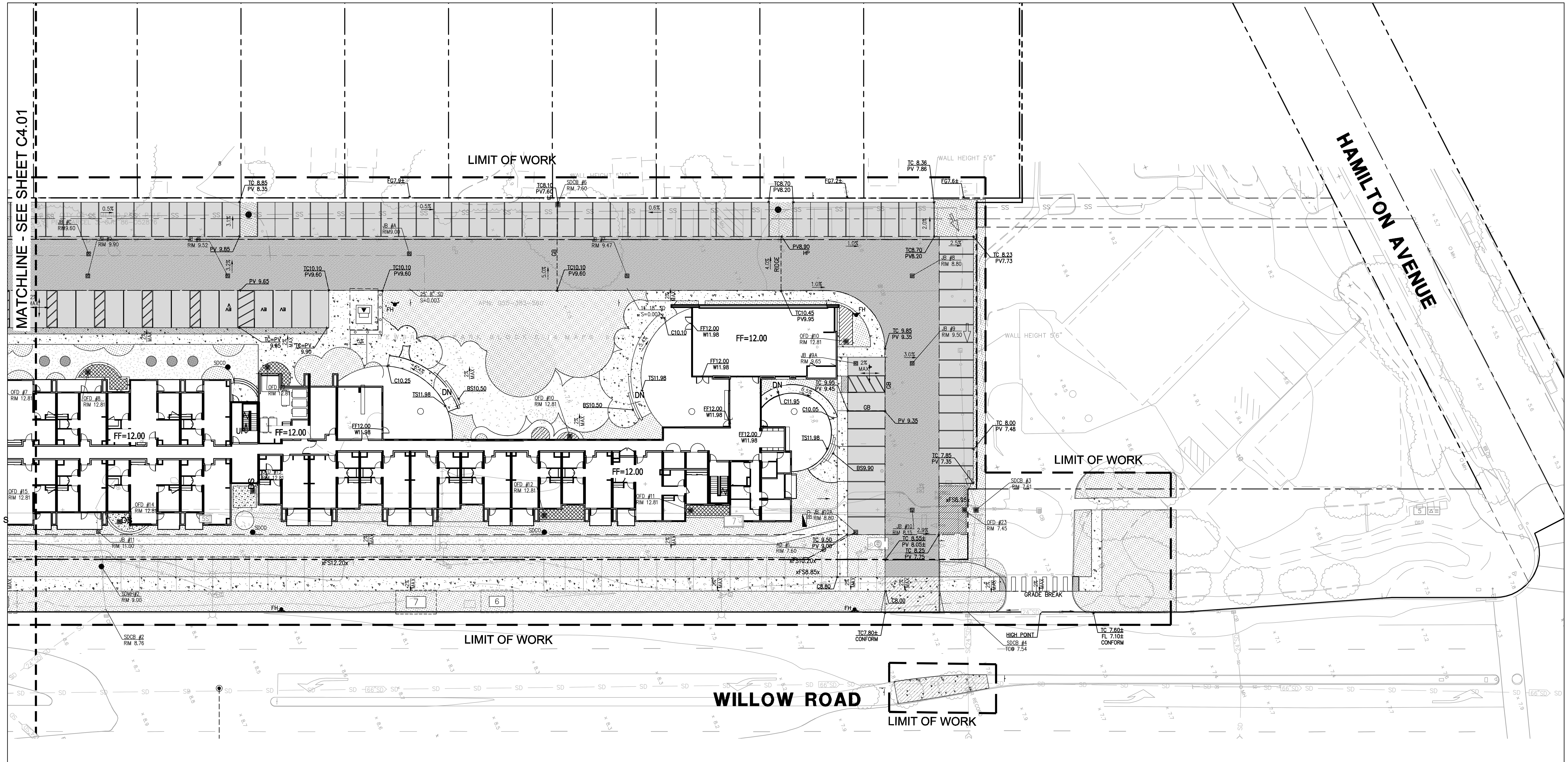
TITLE
PRELIMINARY GRADING PLAN

PROJECT NO.
20156154

DATE
FEBRUARY 22, 2019

SHEET NUMBER
C4.01

NOT FOR CONSTRUCTION



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NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

CONSTRUCTION KEY NOTES

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BS	BOTTOM OF STEP
C	CONCRETE
DN	DOWN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
GB	GRADE BREAK
L/S	LANDSCAPE
N.T.S.	NOT TO SCALE
O.R.	OFFICIAL RECORD
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PV	PAVEMENT
RD	ROAD
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
S/W	SIDEWALK
TC	TOP OF CURB
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W	WOOD

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3. SEE CURB RAMP DETAILS ON SHEET C7.01
4. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT ARE IN CONTACT WITH EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD PER CBC 2304.12.1.2.

FEMA STATEMENT

THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- OVERLAND RELEASE

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

ORIGINAL SHEET SIZE 30" x 42"

TITLE
PRELIMINARY GRADING PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

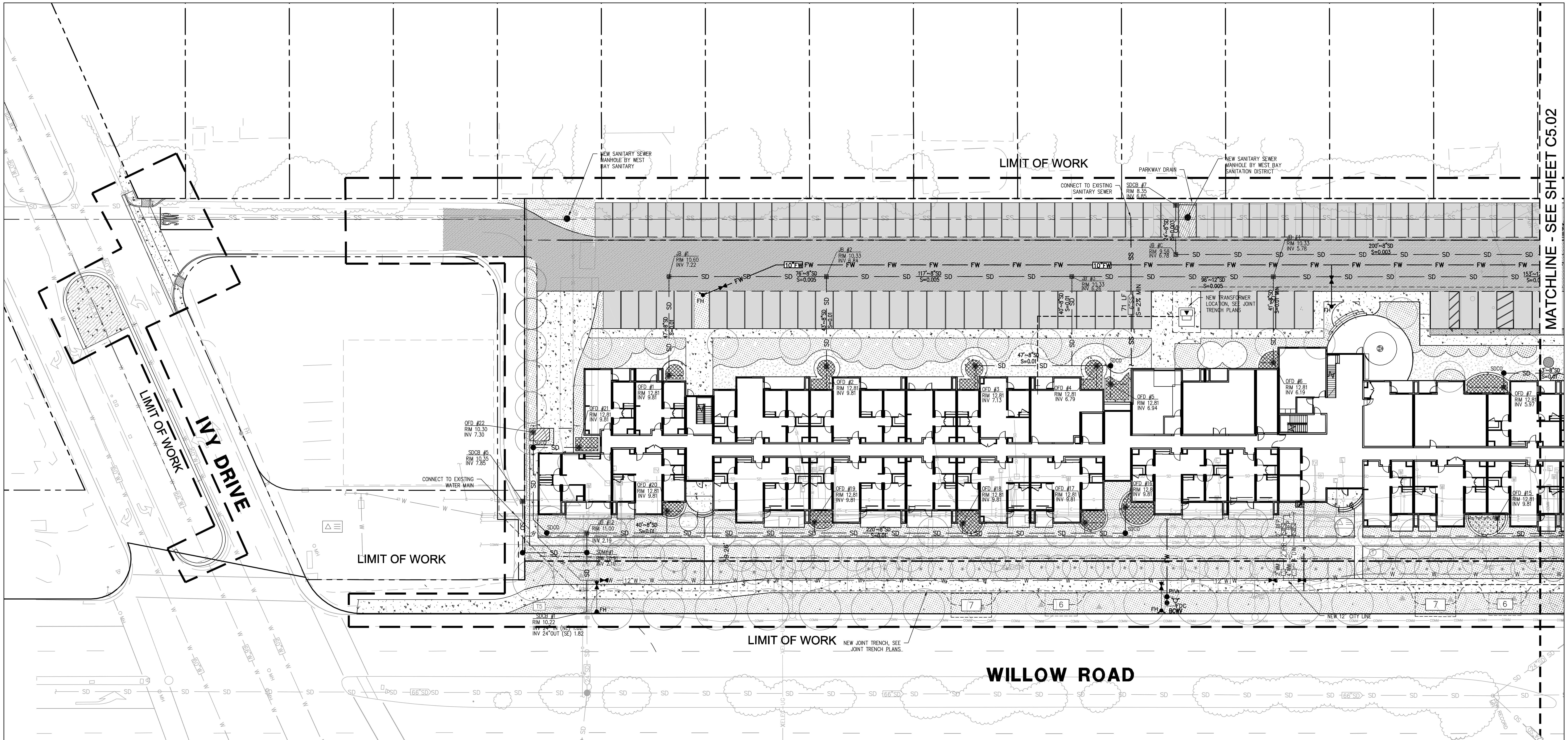
SHEET NUMBER
C4.02

NOT FOR CONSTRUCTION

DRAWING NAME: K:\2015\156154_1300_Willow_Rd_Gateway_Fam\ENG\PLANNING\SHEETS\R4S\05-1300W-R4SGRAD.dwg
PLOT TIME: 02-25-19
PLOTTED BY: pria

Exhibit F

Project Utility Plans



CONSTRUCTION KEY NOTES

SHEET NOTES

1. ONSITE SANITARY SEWER SEWER MAIN IS OWNED BY WEST BAY SANITATION DISTRICT. STORM DRAIN SYSTEMS AND LATERALS ARE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER AS WELL AS WATER LINES AND APPURTENANCES DOWNSTREAM OF DOMESTIC METERS AND FIRE BACKFLOWS. THE WATER MAIN, FIRE HYDRANTS, FIRE BACKFLOW DEVICES AND WATER METERS ARE OWNED AND MAINTAINED BY MENLO PARK MUNICIPAL WATER DISTRICT (MPMWD).
2. FIRE WATER, TELEPHONE/COMMUNICATION, GAS, ELECTRICAL, AND STREET LIGHT LINES & STRUCTURES ARE SHOWN FOR COORDINATION PURPOSES ONLY. SEE ELECTRICAL, FIRE PROTECTION, PLUMBING, AND PG&E PLANS FOR MORE INFORMATION.
3. SEE LANDSCAPE PLANS FOR LANDSCAPE AREA DRAINS AND IRRIGATION LINES.
4. CONTRACTOR SHALL MAINTAIN 12" VERTICAL CLEARANCE ABOVE OR BELOW EXISTING AND NEW UTILITIES CROSSING.
5. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
6. TRENCHES :
   A) UTILITY TRENCHES PER GEOTECHNICAL REPORT.
7. PIPE MATERIAL:
   A) PRIVATE SD: PVC SDR-26, UNLESS OTHERWISE NOTED
   B) PUBLIC SD: RCP CLASS 3
   C) PRIVATE SS: PVC SDR-26
   E) PRIVATE WATER: PVC AWWA C900, DR 14, CLASS 350 PER MPMWD.
   PUBLIC WATER: FUSED HDPE
8. SOILS ARE FOUND TO BE CORROSIVE. ALL BURIED METAL COMPONENTS SHALL BE PROTECTED. CORROSION PROTECTION TO BE DESIGNED BY A CORROSION ENGINEER.
9. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
10. UNLESS OTHERWISE NOTED, IT IS THE INTENT TO PROTECT AND ADJUST TO GRADE ALL EXISTING FACILITIES.
11. VIDEO INSPECTION OF THE EXISTING LATERAL WILL BE PERFORMED PRIOR TO CONSTRUCTION. IF THE CONDITION OF THE EXISTING PIPE IS DEGRADED, THE PROJECT WILL BE REQUIRED TO REPLACE IT.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- PROPOSED JOINT TRENCH
- GAS — PROPOSED GAS
- W — PROPOSED WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- E — EXISTING ELECTRIC LINE
- G — EXISTING GAS LINE
- FO — EXISTING FIBER OPTIC LINE
- SL — EXISTING STREET LIGHT LINE
- COMM — EXISTING COMMUNICATIONS LINE
- SS — EXISTING SANITARY SEWER LINE

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

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SUBMISSION
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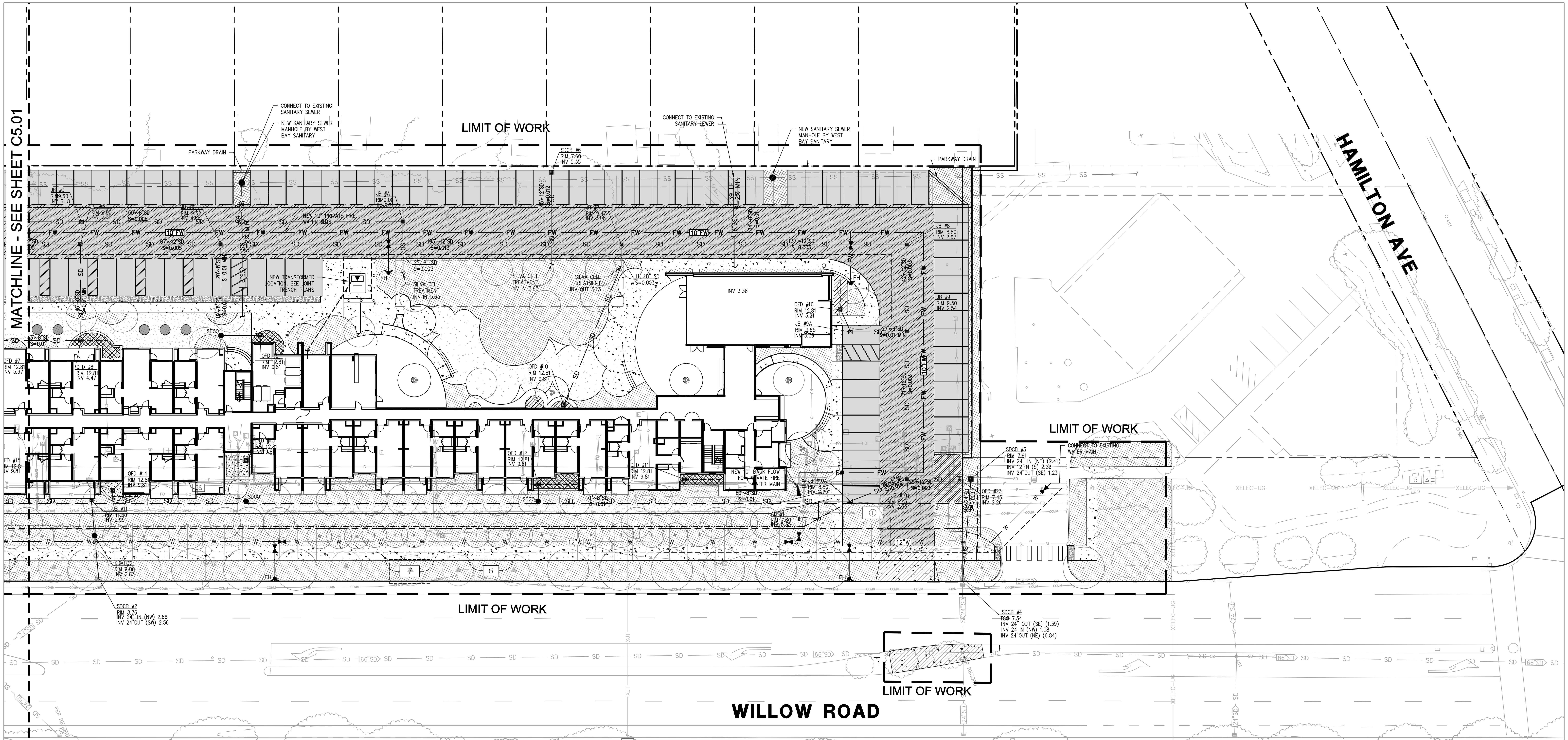
NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
CHECK
ENGINEER SEAL

TITLE
PRELIMINARY UTILITY PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C6.01

ORIGINAL SHEET SIZE 30" x 42"

NOT FOR CONSTRUCTION



CONSTRUCTION KEY NOTES

SHEET NOTES

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3. SEE LANDSCAPE PLANS FOR LANDSCAPE AREA DRAINS AND IRRIGATION LINES.
4. CONTRACTOR SHALL MAINTAIN 12" VERTICAL CLEARANCE ABOVE OR BELOW EXISTING AND NEW UTILITIES CROSSING.
5. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
6. TRENCHES :
   A) UTILITY TRENCHES PER GEOTECHNICAL REPORT.
7. PIPE MATERIAL:
   A) PRIVATE SD: PVC SDR-26, UNLESS OTHERWISE NOTED
   B) PUBLIC SD: RCP CLASS 3
   C) PRIVATE SS: PVC SDR-26
   E) PRIVATE WATER: PVC AWWA C900, DR 14, CLASS 350 PER MPMWD.
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9. HORIZONTAL DIMENSIONS ARE TAKEN FROM CENTER OF PIPE TO CENTER OF PIPE. RIM ELEVATION ARE SPECIFIED AT THE CENTER OF THE FRAME.
10. UNLESS OTHERWISE NOTED, IT IS THE INTENT TO PROTECT AND ADJUST TO GRADE ALL EXISTING FACILITIES.
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LEGEND

PROJECT PROPERTY LINE
ADJACENT PROPERTY LINES
CALTRANS RIGHT OF WAY
LOT LINES
EASEMENT LINE
CENTER LINE
MONUMENT LINE
LIMIT OF WORK
PROPOSED SIGNAGE

PROPOSED JOINT TRENCH
GAS — PROPOSED GAS
W — PROPOSED WATER LINE
FW — PROPOSED FIRE WATER LINE
SS — PROPOSED SANITARY SEWER LINE
SD — PROPOSED STORM DRAIN LINE
E — EXISTING ELECTRIC LINE
G — EXISTING GAS LINE
FO — EXISTING FIBER OPTIC LINE
SL — EXISTING STREET LIGHT LINE
COMM — EXISTING COMMUNICATIONS LINE
SS — EXISTING SANITARY SEWER LINE

TRUE NORTH

NORTH

GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

NOT FOR CONSTRUCTION

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PROJECT
GATEWAY FAMILY HOUSING
LOCATION
1345 WILLOW ROAD
MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER
PROJECT TEAM MEMBERS
-
CHECK
ENGINEER SEAL

TITLE
PRELIMINARY UTILITY PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019
SHEET NUMBER
C6.02
ORIGINAL SHEET SIZE 30" x 42"

Exhibit G

Belle Haven Storm Drain
System Calculation

BELLE HAVEN
STORM DRAIN SYSTEM

CALCULATIONS

City of Menlo Park, California

November 14, 1995
BKF Job No.: 950076-12

OWNER:

THE O'BRIEN GROUP
2001 Winward Way, Suite 200
San Mateo, CA 94404

DESIGN ENGINEER:

BRIAN KANGAS FOULK
540 Price Avenue
Redwood City, CA 94063
Max A. Keech, Principal

BELLE HAVEN STORM DRAIN SYSTEM CALCULATIONS

1. Tables from Wilsey & Ham 1970 Belle-Haven Master Plan
2. Hydrology Calculations, Caltrans, 1978/1979
3. BKF Hydrology, HEC-1 and Tables from July 9, 1990, report
4. Adjustments to Downstream Flows with Vintage Oaks Developed
5. Storm Drain Hydraulics

Tables from Wilsey & Ham 1970 Belle-Haven Master Plan

STREET	FROM M.H.	TO M.H.	TOTAL RUN (CFS)	SLOPE OF SE (%)	PIPE DIAME (INCHES)	CAPACITY F	VELOCITY FI	FALL IN SEW. (FT)	LENGTH OF L	INVERT UPPER END	INVERT LOWER END	REMARKS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
SANTA MONICA	2001	2002	0.3	.25	15	3.2	2.6	.65	277	137.80	137.15	
	2002	2003	0.6	.25	15	3.2	2.6	.74	289	137.15	136.41	
	2003	2004	0.9	.25	15	3.2	2.6	.91	358	136.41	137.50	
NASH	2004	CB.1004	8.14	.26	21	8.2	3.4	1.25	472	137.00	135.75	
	CB1004	2005	12.47	.30	24	12.6	4.0	1.19	394	135.50	134.31	
WILLOW	2005	CB.1007	15.7	.50	24	16.1	5.1	.36	68	134.31	133.95	
	CB1007	2014	15.7	.50	24	16.1	5.1	2.08	411	133.95	131.87	
SANTA MARGARITA	2006	2007	0.6	.30	15	3.6	2.9	.69	224	135.73	135.04	
GILBERT	2007	2008	0.6	.50	15	4.6	3.8	2.04	401	135.04	133.01	
	2008	2013	0.6	.50	15	4.6	3.8	.34	64	133.01	132.67	
COLEMAN AVE	CB 1009	CB1010	4.84	.60	15	5.0	4.1	.56	88	138.56	138.00	COVER = 2.0 USE CLASS IV
	CB 1010	CB 1012	5.24	.15	21	6.2	2.6	.79	517	133.69	132.90	
	CB1012	2011	5.24	.15	21	6.2	2.6	.15	32	132.90	132.85	
COLEMAN PL.	2009	2010	0.5	.20	15	2.9	2.5	.24	118	134.14	133.90	COVER = 1.3 USE CLASS IV
	2010	2011	0.5	.20	15	2.9	2.5	.61	303	133.46	132.85	COVER = 2.0 USE CLASS IV
COLEMAN AVE	2011	2012	5.6	.15	21	6.2	2.6	.67	437	132.55	132.18	
WILLOW	2012	2013	5.89	.10	27	10.0	2.5	.51	512	132.18	131.67	
	2013	2014	5.89	.10	27	10.0	2.5	.05	39	131.67	131.62	
GILBERT	2014	2018	24.99	.65	27	25.4	6.3	2.57	391	131.62	129.05	
McKENDRY	2015	2017	6.2	1.00	15	6.5	5.3	1.77	173	132.77	131.00	
MARMONA	2016	2017	4.1	.40	15	4.1	3.4	1.00	245	132.00	131.00	
	2017	2018	9.0	.40	21	10.2	4.2	.95	232	130.50	129.55	
GILBERT	2018	2025	34.97	.42	33	35.0	5.9	1.57	369	126.55	126.05	
LEXINGTON	2019	2020	5.3	.70	15	5.4	4.4	1.22	170	133.54	132.32	
CONCORD	2020	2021	5.3	.70	15	5.4	4.4	.36	47	132.32	131.96	
	2021	2022	6.5	.40	18	6.7	3.8	.83	209	131.71	130.88	
	2022	2023	9.7	.40	21	10.2	4.2	1.04	252	130.63	129.59	
BARTON	2023	2024	10.6	.25	24	11.4	3.6	.81	317	129.34	128.53	
	2024	2025	10.6	.25	24	11.4	3.6	.60	316	128.53	127.73	
GILBERT	2025	2026	46.0	.60	36	53.0	7.4	1.18	242	126.73	125.25	
	2026	2027	47.0	.60	36	53.0	7.4	2.07	341	125.25	123.18	
	2027	2029	49.2	.35	39	50.0	6.0	1.56	441	122.93	121.37	

DES.	FMC	11/70
DRWN	FMC	11/70
CHKR.		

WILSEY & HAM

EAST PALO ALTO - BELLE HAVEN
STORM DRAIN PROGRAM UNIT NO. 2
STORM SEWER CALCULATIONS
083-1313-20

AUG. 1970

SEWER LOCATION			TOTAL RUNOFF (CFS)	SLOPE OF SEWER (%)	PIPE DIAMETER (INCHES)	CAPACITY FULL	VELOCITY FULL	FALL IN SEWER (FT)	LENGTH OF LINE	SEWER INVERT		REMARKS
STREET	FROM M.H.	TO M.H.								UPPER END	LOWER END	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
GILBERT	2028	2029	1.84	.30	15	3.5	2.9	1.00	331	129.00	125.00	
LAUREL	CB.1026	2029	3.44	.50	15	4.6	3.7	1.77	350	129.77	128.00	
	2029	2031	55.7	.35	42	61.0	6.3	1.71	484	121.12	119.41	
ELM	2032	2031	3.35	.50	15	4.6	3.7	2.12	420	128.12	126.00	
LAUREL	2031	2036	60.3	.35	42	61.0	6.3	1.80	508	119.41	117.61	
MENALTO	2032	2033	8.6	.70	18	8.9	5.0	3.06	433	127.00	123.94	
	2033	2034	8.6	.70	18	8.9	5.0	.35	46	123.94	123.59	
O'CONNOR	2034	2035	8.6	.30	21	8.8	3.6	1.06	348	120.33	119.27	
	2035	2036	10.8	.26	24	11.8	3.7	.91	343	119.02	118.11	
	2036	2038	62.0	.40	42	65.0	6.7	.46	109	117.61	117.15	
	2037	2038	5.0	.70	15	5.4	4.4	1.22	170	123.50	122.28	
LAUREL	2038	2039	62.0	.40	42	65.0	6.7	1.20	296	117.15	115.95	
	2039	2041	62.0	.20	48	66.0	5.2	.40	198	114.60	114.20	
O'KEEFE	2040	2041	1.8	1.0	15	6.5	5.3	3.12	308	120.07	116.95	
LAUREL	2041	2042	63.8	.20	48	66.0	5.2	.93	459	114.20	113.27	
	2042	2043	76.0	.30	48	80.0	6.4	.96	314	113.27	112.31	
	2043	2044	78.0	.30	48	80.0	6.4	.72	236	112.31	111.59	
	2044	2045	81.0	.40	48	93.0	7.4	1.09	267	111.59	110.50	
	2045	2046	86.0	.40	48	93.0	7.4	.76	185	110.50	109.74	
	2046	2047	86.0	.40	48	93.0	7.4	.27	63	109.74	109.47	
	2047	2048	90.5	.40	48	93.0	7.4	.69	167	109.47	108.78	
	2048	2049	90.5	.50	48	104.0	8.2	.77	150	108.78	108.01	
	2049	2059	91.0	.50	48	104.0	8.2	.90	175	108.01	107.11	
MENALTO	2050	2051	5.6	.30	18	5.8	3.3	1.26	416	121.13	119.87	COVER: 1.5 USE CLASS IV
	2051	EL. 121	9.26	.35	21	9.5	3.9	1.42	401	119.62	118.20	COVER: 1.5 USE CLASS IV
EAST BAYSHORE	2052	2053	3.5	.20	18	4.8	2.7	1.20	594	118.00	116.80	
MENALTO	2054	2055	9.26	.30	24	12.6	3.9	.74	241	115.30	114.56	
HOLLAND	2055	2056	13.33	.60	24	20.7	6.5	2.58	318	114.56	111.98	
	2056	2059	13.33	.80	24	20.7	6.5	2.93	362	110.50	107.57	
AST BAYSHORE	2057	2058	.5	.40	15	6.7	3.8	1.03	254	112.22	111.19	
HOLLAND	2058	2059	1.6	.40	18	6.7	3.8	1.56	385	111.19	109.63	
LAUREL	2059	2060	104.0	.40	51	110.0	7.8	2.01	512	106.86	104.79	
BAY	2060	2062	104.0	.40	51	110.0	7.8	.40	94	104.79	104.37	
	2061	2062	2.0	.50	15	4.6	3.7	.85	165	103.85	103.00	

DES.	FPE	11/70	WILSEY & HAM
DRWN.	FPE	11/70	EAST PALO ALTO - BELLE HAVEN STORM DRAIN PROGRAM UNIT NO. 2
CHKR.			STORM SEWER CALCULATIONS
			083-1313-20 AUG. 1970

SEWER LOCATION			TOTAL RUNOFF (CFS)	SLOPE OF SEWER (%)	PIPE DIAMETER (INCHES)	CAPACITY FULL	VELOCITY FULL	FALL IN SEWER (FT)	LENGTH OF LINE	SEWER INVERT		REMARKS
STREET	FROM M.H.	TO M.H.								UPPER END	LOWER END	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
LAUREL	2062	2067	119.1	.35	54	120.0	7.4	2.24	634	104.14	101.90	
BAY	FI 1061	FI 1062	3.78	.50	15	4.6	3.7	.45	90	113.15	112.70	
	FI 1062	2063	5.18	.25	18	5.3	3.0	.40	157	112.45	112.05	
	2063	2064	7.52	.25	21	8.0	3.3	.68	265	111.80	111.12	
	2064	2065	9.89	.20	24	10.3	3.2	.60	293	110.67	110.27	
	2065	2066	12.21	.30	24	12.6	4.0	.77	252	110.27	109.50	
MELLOW	2066	2067	14.38	.50	24	16.1	5.1	2.81	557	108.17	105.36	
LAUREL	2067	2068	134.72	.35	60	159.0	8.0	1.24	348	101.40	100.16	
	2066	2072	134.72	.35	60	159.0	8.0	1.35	380	100.16	98.81	
ALBERNI	2203	2069	2.0	.20	18	4.8	2.7	.58	286	100.65	100.07	
	2069	2070	3.3	.20	21	7.2	3.0	.57	277	99.82	99.25	
	2070	2071	8.7	.20	24	10.3	3.2	.58	282	99.00	98.42	
	2071	2072	10.2	.20	24	10.3	3.2	.57	279	98.42	97.85	
ALBERNI	2072	2073	150.0	.35	60	159.0	8.0	.85	238	97.35	96.50	
MENALTO	2073	2074	150.0	.35	60	159.0	8.0	.54	148	96.00	95.46	
	2074	2143	150.0	.40	60	170.0	8.5	1.01	249	95.46	94.45	
RINGWOOD	2075	2076	5.0	.30	18	5.8	3.3	1.17	385	142.20	141.03	
	2076	2077	5.0	.40	18	6.7	3.8	1.55	386	141.03	139.48	
COLEMAN	2077	2080	7.94	.13	24	8.2	2.6	.71	544	134.73	134.02	
	2078	2079	5.86	.35	18	6.3	3.5	1.68	476	137.54	135.86	
	2079	2080	8.60	.30	21	8.8	3.6	1.34	442	135.61	134.27	
MENLO OAKS	2080	2081	16.78	.60	24	17.9	5.6	2.49	411	134.02	131.53	
	2081	2082	16.78	.60	24	17.9	5.6	2.46	406	131.53	129.07	
	2082	2086	16.12	.40	27	20.0	5.0	2.15	533	128.82	126.67	
BERKELEY	2083	2084	6.98	.50	18	7.5	4.2	2.59	514	134.06	131.47	
COLBY	2084	2085	8.08	.60	18	8.3	4.6	3.23	535	131.47	128.24	
	2085	2086	8.08	.30	21	5.8	3.6	.82	271	127.99	127.17	
MENLO OAKS	2086	FI 1105	18.62	.40	27	20.0	5.0	.21	48	126.67	126.46	
	FI 1105	2087	18.62	.40	27	20.0	5.0	2.06	510	126.46	124.40	
	2087	2088	18.62	.50	27	22.2	5.5	1.79	353	124.40	122.61	
	2088	2089	18.62	.50	27	22.2	5.5	.20	40	122.61	122.41	
	2089	2094	18.62	.50	27	22.2	5.5	2.39	470	122.41	120.02	

DES.	FPE	11/70
DRWN	FPE	11/70
CHKR.		

WILSEY & HAM

EAST PALO ALTO - BELLE HAVEN
STORM DRAIN PROGRAM UNIT NO.2
STORM SEWER- CALCULATIONS
083-1313-20 AUG. 1970

SEWER LOCATION			TOTAL RUNOFF (CFS)	SLOPE OF SEWER (%)	PIPE DIAMETER (INCHES)	CAPACITY FULL	VELOCITY FULL	FALL IN SEWER (FT)	LENGTH OF LINE	SEWER INVERT		REMARKS
STREET	FROM M.H.	TO M.H.								UPPER END	LOWER END	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
RINGWOOD	2090	2091	2.82	.60	15	5.0	4.1	3.44	570	127.76	124.32	
	2091	2092	3.40	1.10	15	6.8	5.5	4.37	393	124.32	119.95	COVER < 1.5 USE CLASS III
BAY	2092	2093	5.44	.30	18	5.8	3.3	.99	324	119.70	118.71	
	2093	2096	5.44	.30	18	5.8	3.3	1.00	324	118.71	117.71	
	2094	2095	5.04	.30	18	5.8	3.3	1.82	601	120.95	119.13	
	2095	2096	6.68	.40	18	6.7	3.8	1.42	351	119.13	117.71	
MENLO OAKS	2096	2097	31.49	.70	30	35.0	7.0	3.82	541	116.71	112.89	
	2097	2098	31.49	.80	30	37.5	7.5	4.04	501	112.89	108.85	
	2098	2099	33.50	.70	30	35.0	7.0	1.77	249	108.85	107.08	
	2099	2100	37.01	.50	33	38.0	6.4	1.36	268	106.53	105.17	
NEWBRIDGE	2100	2101	37.01	.50	33	38.0	6.4	1.47	290	105.37	103.90	
ALMANOR	2101	2109	40.2	.60	33	42.0	7.0	1.67	275	103.90	102.23	
BAYSHORE	F.I. 1117	F.I. 1118	4.0	.20	18	4.8	2.7	.85	423	111.40	110.55	
	F.I. 1118	F.I. 131	4.0	.20	18	4.8	2.7	.46	228	110.55	110.09	
PIERCE	F.I 132	2102	6.2	.15	24	8.8	2.8	.59	391	106.20	105.61	
	2102	2103	11.76	.10	30	13.2	2.7	.22	217	105.61	105.39	
ALPINE	2103	2104	11.76	.10	30	13.2	2.7	.06	56	105.39	105.33	
	2104	2105	11.76	.10	30	13.2	2.7	.23	220	105.33	105.10	
MARKET	2105	2106	11.76	.10	30	13.2	2.7	.27	272	105.10	104.83	
	2106	CB 1122	11.76	.10	30	13.2	2.7	.14	134	98.40	95.26	
RINGWOOD	2107	2108	4.6	.70	24	19.2	6.1	.87	120	109.80	108.93	
IVY	2108	CB1122	4.6	.50	24	16.1	5.1	.68	132	108.93	106.25	
IVY	CB1122	CB1123	15.22	.20	30	16.8	3.6	.82	403	104.64	103.22	
	CB1123	2109	15.22	.20	30	15.8	3.6	.74	369	103.22	102.48	
IVY	2109	CB1126	55.84	.70	36	57.0	8.0	3.06	434	101.98	98.92	
	CB1126	2110	55.84	.70	36	57.0	8.0	1.77	277	98.92	96.95	
	2110	2111	58.0	.09	54	60.0	3.8	.26	290	96.95	96.69	
	2111	2112	58.0	.09	54	60.0	3.8	.27	301	96.69	96.42	
	2112	2113	58.0	.09	54	60.0	3.8	.28	303	96.42	96.14	
	2113	2114	58.0	.09	54	60.0	3.8	.27	297	96.14	95.87	
	2114	2115	60.0	.05	60	60.0	3.0	.16	323	95.87	95.71	
	2115	2199	60.0	.05	60	60.0	3.0	.10	197	95.71	95.61	
IVY	2116	2199	2.0	.50	15	4.6	3.7	.80	155	100.16	99.36	
ALLEY (WILLOW)	2199	2200	60.0	.05	60	60.0	3.0	.17	297	95.61	95.44	

DES.	FPE	11/70
DRWN.	FPE	11/70
CHKR.		

WILSEY & HAM

EAST PALO ALTO - BELLE HAVEN
STORM DRAIN PROGRAM UNIT NO.2
STORM SEWER CALCULATIONS
083-1313-20 AUG. 1970

SEWER LOCATION			TOTAL RUNOFF (CFS)	SLOPE OF SEWER (%)	PIPE DIAMETER (INCHES)	CAPACITY FULL	VELOCITY FULL	FALL IN SEWER (FT)	LENGTH OF LINE	SEWER INVERT		REMARKS
STREET	FROM M.H.	TO M.H.								UPPER END	LOWER END	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
WILLOW	2117	2118	0.8	.50	18	7.5	4.2	1.50	297	115.64	114.14	
	2118	2119	0.8	.50	18	7.5	4.2	1.75	346	114.14	112.39	
	2119	2120	0.8	.50	18	7.5	4.2	.85	165	112.39	111.54	
	2120	2121	59.4	.35	42	61.0	6.3	.34	262	108.54	108.20	
	2121	2127	59.4	.35	42	61.0	6.3	.35	94	108.60	108.25	
PIERCE	2122	2123	3.86	.15	27	12.0	3.0	.46	303	111.50	111.04	
	2123	2124	3.86	.15	27	12.0	3.0	.44	285	111.04	110.60	
	2124	2125	4.43	.15	27	12.0	3.0	.87	575	110.60	109.73	
	2125	2126	5.33	.15	27	12.0	3.0	.80	526	109.73	108.93	
	2126	2127	5.33	.15	27	12.0	3.0	.18	113	108.93	108.75	
WILLOW	2127	2128	62.3	.40	42	65.0	6.7	.78	191	108.25	107.47	
	2128	2129	62.3	.30	45	66.0	6.0	.28	87	107.22	106.94	
	2129	2130	62.3	.30	45	66.0	6.0	1.23	405	106.94	105.71	
	2130	2132	62.3	.30	45	66.0	6.0	1.22	400	105.71	104.49	
NEWBRIDGE	2131	2132	5.6	.30	18	5.8	3.3	.89	292	108.54	107.65	
NEWBRIDGE	2132	2133	87.0	.35	48	87.0	6.9	.51	140	104.24	103.73	
ALLEY (WILLOW)	2133	2134	87.0	.35	48	87.0	6.9	1.52	428	103.73	102.21	
	2134	2200	87.0	.35	48	87.0	6.9	1.52	427	102.21	100.69	
	2200	2201	85.0	.10	60	85.0	4.3	.19	171	95.44	95.25	
O'BRIEN	2201	2202	85.0	.10	60	85.0	4.3	.10	92	95.25	95.15	
	2202	2135	80.0	.10	60	85.0	4.3	.50	487	95.15	94.65	
	2135	2136	80.0	.10	60	85.0	4.3	.57	566	94.65	94.08	
	2136	2143	80.0	.10	60	85.0	4.3	.13	118	94.08	93.95	
O'BRIEN	2137	2138	23.0	.60	27	24.5	6.1	.81	130	100.51	99.70	
	2138	2141	23.0	.35	30	24.9	5.0	.95	265	99.45	98.50	
PALMAR	2139	2140	2.5	.50	15	4.6	3.7	.66	127	104.07	103.41	
	2140	2141	3.2	.50	15	4.6	3.7	1.41	277	103.41	102.00	
O'BRIEN	2141	2142	23.0	.35	30	24.9	5.0	.68	186	98.50	97.82	
	2142	2143	23.0	.54	30	31.0	6.3	1.37	250	97.82	96.45	
	2143	2144	260	.27	6x6 Box	260	7.2	1.87	689	93.95	92.08	
	2144	2145	260	.27	6x6 Box	260	7.2	2.15	795	92.08	89.93	
	2145	2146	270	.30	6x6 Box	275	7.6	2.35	783	89.93	87.58	
	2146	2164	275	.30	6x6 Box	275	7.6	2.38	793	87.58	85.20	

DES.	FPE	11/70
DRWN	FPE	11/70
CHKR.		

WILSEY & HAM

EAST PALO ALTO - BELLE HAVEN
STORM DRAIN PROGRAM UNIT NO. 2
STORM SEWER CALCULATIONS

083-1313-20 AUG. 1970

STREET	FROM M.H.	TO M.H.	TOTAL RUNOFF (CFS)	SLOPE OF SEWER (%)	PIPE DIAMETER (INCHES)	CAPACITY FL	VELOCITY FL	FALL IN SEWER (FT)	LENGTH OF L	INVERT UPPER END	INVERT LOWER END	REMARKS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
GLORIA	2147	2148	4.75	.80	15	5.8	4.7	4.50	558	112.50	105.00	COVER = 1.5' USE CURB ST
HAZELWOOD	EX. 1156	2149	3.20	.30	15	3.6	2.9	.46	152	103.83	103.37	
	2149	2151	4.27	.20	18	4.8	2.7	.77	377	103.37	102.60	
KAVANAUGH	2150	2151	3.70	.20	18	4.8	2.7	.54	266	103.64	103.10	
	2151	2152	7.90	.15	24	8.9	2.8	.40	259	102.60	102.20	
	2153	2154	9.54	.20	30	18.8	3.8	.70	342	100.00	99.30	
	2154	2155	9.54	.20	30	18.8	3.8	.61	301	99.30	98.69	
UNIVERSITY	2155	2156	9.61	.20	30	18.8	3.8	.52	251	98.69	98.17	
	2156	2157	9.61	.08	33	15.2	2.6	.37	460	95.75	95.38	
	2157	2158	9.61	.08	33	15.2	2.6	.36	452	95.38	95.02	
	2158	2159	9.61	.08	33	15.2	2.6	.14	166	95.02	94.85	
	2159	2160	11.89	.08	33	15.2	2.6	.26	321	94.88	94.62	
	2160	2161	15.00	.10	33	17.0	2.8	.46	449	94.62	94.16	
S.P.R.R.	2161	2162	60.0	.35	42	61.0	6.3	1.41	396	93.41	92.00	
	2162	2163	85.0	.50	45	86.0	7.6	2.00	396	91.75	89.75	
	2163	2164	110.0	.88	48	138.0	10.8	3.40	385	89.50	86.10	
S.P.R.R. X'ING	2164	FLOYD SECTION	450	.27	2ea-72"	454	7.8	.19	62	94.70	94.51	
	FENCED SECTION	PUMP STA.	450	.27	9x6 BOX	451	8.3	2.49	922	84.49	82.00	
HAMILTON	2166	2167	2.20	.30	15	3.5	2.9	.62	204	103.12	102.50	
CHILCO	2167	2172	4.80	.30	18	5.8	3.3	.58	190	97.84	97.26	
TERMINAL	2168	2169	5.1	.30	18	5.8	3.3	.77	252	101.90	101.13	
	2169	2170	6.6	.20	21	7.2	3.0	.50	244	100.38	100.38	
	2170	2171	7.8	.30	21	8.6	3.6	.57	287	100.55	99.61	
	2171	2172	11.0	.50	21	11.4	4.6	2.50	495	97.51	97.01	
CHILCO	2172	2173	15.0	.10	33	17.0	2.8	.24	242	96.01	95.77	
S.P.R.R.	2173	2174	16.0	.10	33	17.0	2.8	.54	536	95.77	95.23	
	2174	2176	16.0	.10	33	17.0	2.9	.53	526	95.23	94.70	
HENDERSON	2175	2176	6.7	1.0	15	6.7	5.3	1.25	121	100.20	98.95	
S.P.R.R.	2176	2177	17.4	.13	33	19.2	3.2	.20	148	94.70	94.50	
	2177	2178	17.4	.13	33	19.2	3.2	.31	229	94.50	94.19	
WINDERMERE	C.B 1177	2178	3.2	.50	15	4.6	3.7	1.53	302	101.20	99.67	
S.P.R.R.	2178	2179	17.4	.13	33	19.2	3.2	.41	308	94.19	93.78	

DES.	FPE	11/70
DRWN	FPE	11/70
CHKR.		

WILSEY & HAM

EAST PALO ALTO - BELLE HAVEN
STORM DRAIN PROGRAM UNIT NO.2
STORM SEWER CALCULATIONS
083-1313-20 AUG. 1970

SHEET 6 OF 1

SEWER LOCATION			TOTAL RUNOFF (CFS)	SLOPE OF SEWER (%)	PIPE DIAMETER (INCHES)	CAPACITY FULL	VELOCITY FULL	FALL IN SEWER (FT)	LENGTH OF LINE	SEWER INVERT		REMARKS
STREET	FROM M.H.	TO M.H.								UPPER END	LOWER END	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
HOLLYBURNE	CB 1179	2179	3.2	.50	15	4.6	3.7	1.52	300	100.30	98.78	
S.P.R.R.	2179	2185	17.4	.13	33	19.2	3.2	.42	315	93.78	93.36	
HAMILTON	2180	2181	3.2	.25	15	3.3	2.7	.76	298	96.62	95.86	
	2181	2182	3.8	.20	18	4.8	2.7	.68	334	95.61	94.93	
	2182	2183	4.6	.20	18	4.8	2.7	.68	334	94.93	94.25	
SEVIER	2183	2184	6.4	.30	21	8.9	3.7	.10	62	94.00	93.80	
	2184	2185	6.4	.30	21	8.9	3.7	.69	224	93.80	93.11	
S.P.R.R.	2185	F.I. 1186	44.0	.20	42	46.0	4.7	.27	132	92.61	92.34	
	F.I. 1186	2186	45.5	.22	42	48.0	5.0	.65	377	92.34	91.49	
	2186	2187	47.0	.22	42	48.0	5.0	.88	394	91.49	90.61	
	2187	2188	50.2	.25	42	52.0	5.3	.30	114	90.61	90.31	
DUMBARTON APPROACH	2188	2189	51.9	.25	42	52.0	5.3	.44	172	90.31	89.87	
	2189	2190	55.0	.30	42	56.0	5.9	.22	68	89.87	89.65	
	2190	2191	56.5	.15	48	57.0	4.5	.76	496	89.15	88.39	
	2191	2192	64.0	.18	48	63.0	4.9	.81	446	88.39	87.58	
	2192	2193	65.5	.20	48	66.0	5.2	.70	446	87.58	86.88	
	2193	2194	67.0	.25	48	74.0	5.8	1.11	439	86.68	85.57	
	2194	2195	67.0	.25	48	74.0	5.8	.82	326	85.57	84.75	
	2195	PUMP STATION	67.0	.30	48	74.0	5.8	.03	13	83.04	83.00	
	2196	2197	6.5	.50	18	7.5	4.2	1.14	224	96.90	95.76	
	2197	2198	15.5	.50	24	16.2	5.1	.60	116	95.26	94.66	
	2198	PUMP STATION	15.5	.50	24	16.2	5.1	.06	15	83.06	83.00	

DES.	FPE	11/70
DRWN	FPE	11/70
CHKR.		

WILSEY & HAM

EAST PALO ALTO - BELLE HAVEN
STORM DRAIN PROGRAM UNIT NO.2
STORM SEWER CALCULATIONS
083-1313-20 AUG. 1970

Hydrology Calculations, Caltrans, 1978/1979

CALC BY Moran | DATE 8/28/78 | JOB 04 SM 84 | SHEET 1

Junction 1

Intersection - Laurel and Holland.

travel time = 25.5 min per Wilsey and Ham

assume initial = 10.0

T_c = 35.5 min

Q_{10} = 104.0 ahead per Wilsey and Ham

Junction 2

Intersection - Holland and E. Bayshore.

from Junction 1 assume V = 6

L = 385 then ΔT_c = 1.1 min

previous T_c = 35.5 min

ΔT_c = 1.1

T_c = 36.6 min

Q_{10} = 104.0 from Junction 1

C_{10} = 0.896 for T_c = 35.5 min

C_{10} = 0.831 for T_c = 36.6 min

adjusted $Q_{10} = \frac{.831}{.896} \times 104.0 = 102.2$

from local pickup

assume T_c = 10.0 min

Q_{10} = 0.8 per Wilsey and Ham

C_{10} = 1.784 for T_c = 10 min

C_{10} = 0.831 for T_c = 36.6 min

adjusted $Q_{10} = \frac{0.831}{1.784} \times 0.8 = 0.4$

QUANTITY CALCULATIONS SHEET

Junction 2 cont'd

Q_{10} = 102.2 + 0.4 = (102.6) ahead

Junction 3

Intersection E. Bayshore and Bay.

from Junction 2 assume $V = 6$

$L = 2.55$ Then $\Delta Tc = 0.7$ min

previous Tc = 36.6 min

ΔTc = 0.7

Tc = 37.3 min

$Q_{10} = 102.6$

c_{10} = .831 for Tc = 36.6 c_{10} = .822 for Tc = 37.3

adjusted $Q_{10} = \frac{.822}{.831} \times 102.6 = 101.5$

Q_{10} = (101.5 ahead)

Junction 4

Intersection E. Bayshore and Donatoya

from Junction 3 assume $V = 6$

$L = 4.00$ Then ΔTc = 1.1 min

previous Tc = 37.3 min

ΔTc = 1.1

Tc = 38.4 min

$Q_{10} = 101.5$

c_{10} = .821 for Tc = 37.3 c_{10} = .808 for Tc = 38.4

adjusted $Q_{10} = \frac{.808}{.821} \times 101.5 = 99.9$

QUANTITY CALCULATIONS SHEET

Junction 4 contd

Delete local pickup from 2131 to 2132 to allow adjustment of Price Rd. System.

assume T_c = 10.0 min from I/C area

ΔT_c = 1.9 from Junction 4 to 5

ΔT_c = 0.8 from Junction 5 to 6

T_c = 12.7 min

Q_{10} = 5.6 (assume local pickup at 2131 negligible)

I_{40} = 1.550 for T_c = 12.7 min

I_{10} = 1.789 for T_c = 10 min

adjusted $Q_{10} = \frac{1.789}{1.550} \times 5.6 = 6.4$ at Bubble up inlet

Local pickup at Junction 4 from existing Bubble up inlet

Trunkline T_c = 38.4 min

assume T_c = 10 from I/C area

Q_{10} = 6.4 (see above)

I_{10} = 1.789 for T_c = 10 min

I_{10} = 0.808 for T_c = 38.4 min

adjusted $Q_{10} = \frac{0.808}{1.789} \times 6.4 = 2.9$

Q_{10} = 99.9 + 2.9 = 102.8 ahead

QUANTITY CALCULATIONS SHEET

CALC BY Morew | DATE 8/29/78 | 04 SM 84 | SHEET 4

CHECK BY

Junction 5

Intersection - Senator and Newbridge

from Junction 4 assume V = 6

L = 700 then Δ Tc = 1.9 min

previous Tc = 38.4 min

Δ Tc = 1.9

Tc = 40.3 min

Q_{10} = 102.8

L_0 = 0.785 for Tc = 40.3

L_0 = 0.808 for Tc = 38.4

adjusted Q_{10} = $\frac{0.785}{0.808}$ × 102.8 = 99.9

from Bay and Oakwood System

Q_{10} = 14.4 per Wilsey and Ham

Travel time to Newbridge and Main

travel time = 7.0 min per Wilsey and Ham

initial Tc = 10.0 assumed

17.0 min

L_0 = 0.785 for Tc = 40.3 min

L_0 = 1.305 for Tc = 17.0 min

adjusted Q_{10} = $\frac{0.785}{1.305}$ × 14.4 = 8.7

QUANTITY CALCULATIONS SHEET

CALC BY Moren | DATE 8/29/78 | 04 SM 84 | SHEET 5
CHECK BY

Junction 5 contd.

from additional area not covered by Bay and Oakwood Systems within sheet 5.

Q_{10} = 10.4

Assume T_c = 10 min

i_{10} = 0.785 for T_c = 40.3 min

i_{10} = 1.784 for T_c = 10 min

adjusted $Q_{10} = \frac{0.785}{1.784} \times 10.4 = 4.6$

Q_{10} = 99.9 + 8.7 + 4.6 = 113.2

Q_{10} = 113.2 ahead

Junction 6

Intersection - Willow and Newbridge.

from Junction 5 assume V = 6

l = 292 then ΔT_c = 0.8 min

previous T_c = 40.3 min

ΔT_c = 0.8

T_c = 41.1 min

i_{10} = 0.785 for T_c = 40.3 min

i_{10} = 0.776 for T_c = 41.1 min

adjusted $Q_{10} = \frac{0.776}{0.785} \times 113.2 = 111.9$

QUANTITY CALCULATIONS SHEET

Junction 6 contd

from Pierce Rd. System

adjust Pierce Rd. Q for deletion of I/C runoff (see sheet 3).

Pierce Rd. travel time = 13.0 min per Wilson and Hamm.

assume T_c = 10 min assumed.

T_c = 23.0 min

Pierce Rd. Q_{10} = 87.0 per Wilson and Hamm

I/C runoff at junction 6 Q_{10} = 5.6 T_c = 12.7

i_{10} = 1.550 for T_c = 12.7 i_{10} = 1.092 for T_c = 23.0

adjusted $Q_{10} = \frac{1.092}{1.550} \times 5.6 = 3.9$

Total Pierce Rd. Q_{10} = 87.0 - 3.9 = 83.1

for T_c = 23.0 min

adjusted $Q_{10} = \frac{0.726}{1.092} \times 83.1 = 59.1$

Q_{10} = 111.9 + 59.1 = 171.0

Q_{10} = 171.0 ahead

Junction 7

Interconnection - Willow Rd. and Ashwood

from junction 6 runoff coefficient C = 9

A = 500 then ΔTc = 0.9

previous Tc = 41.1 min

ΔTc = 0.9

Tc = 42.0 min

Q_{10} = 171.0

i_{10} = 0.776 for Tc = 41.1 min

i_{10} = 0.766 for Tc = 42.0 min

adjusted Q_{10} = $\frac{0.766}{0.776}$ × 171.1 = 168.9

from Alberni System

Q_{10} = 10.2 from Wilsey and Ham

total time = 9.8 min from Wilsey and Ham

adjusted Tc = 10.0 min (adjusted)

Tc = 14.8 min

i_{10} = 1.417 for Tc = 14.8 min

i_{10} = 0.766 for Tc = 42.0 min

adjusted Q_{10} = $\frac{0.766}{1.417}$ × 10.2 = 5.5

Q_{10} = 168.9 + 5.5 = 174.4

Q_{10} = 174.4 cfs

UTILITY CALCULATIONS SHEET

Junction 8

Intersection - Willow Rd. and O'Brien

assume negligible local pickup

from junction 7 assume $V = 9$

$l = 420$ then $\Delta T_c = 0.8$ min

previous $T_c = 42.0$ min

$\Delta T_c = 0.8$

$T_c = 42.8$ min

$C_{10} = 0.766$ for $T_c = 42.0$ min

$C_{10} = 0.758$ for $T_c = 42.8$ min

adjusted $Q_{10} = \frac{0.758}{0.766} \times 174.4 = 172.6$

$Q_{10} = 172.6$ cfs

Junction 9

Intersection - Willow Rd. and Dry drive

from junction 8 assume $V = 9$

$l = 330$ then $\Delta T_c = 0.6$

previous $T_c = 42.8$ min

$\Delta T_c = 0.6$

$T_c = 43.4$ min

$C_{10} = 0.758$ for $T_c = 42.8$ min

$C_{10} = 0.752$ for $T_c = 43.4$ min

adjusted $Q_{10} = \frac{0.752}{0.757} \times 172.6 = 171.2$

DEPARTMENT OF TRANSPORTATION
DATA SYSTEMS BRANCH
QUANTITY CALCULATIONS SHEET

Junction 9 cont'd

from Dwy drive system (sht 9)

Q_{10} = 60.0 per walkway and Hand (includes sht 11)

Travel time = 30.5 mins to willow Rd. per walkway and Ham

Initial Tc = 10 mins (assumed)

Tc = 40.5 min

Q_{10} = 33.5 per walkway and Hand (former contributions from sht 11 - to be deducted)

Travel time = 18.2 mins to sht 9 per walkway and Ham.

Initial Tc = 10 mins (assumed)

Tc = 28.2 mins

Q_{10} = 11.8 per walkway and Ham (former contribution from sht 11 - to be deducted)

Travel time = 12.1 mins to sht 9 per walkway and Hand.

Initial Tc = 10 mins (assumed)

Tc = 22.1 mins

Trunkline Tc = 43.4 mins

Q_{10} = 171.2 (see calc. sh. 8)

C_{10} = 0.752 for Tc = 43.4 mins

C_{10} = 0.783 for Tc = 40.5 min

C_{10} = 0.969 for Tc = 28.2 mins

C_{10} = 1.118 for Tc = 22.1 mins

QUANTITY CALCULATIONS SHEET

Junction 9 cont'd

adjusted Q_{10} from shed 9 to Junction

$$Q_{10} = 60 - 33.5\left(\frac{0.783}{0.969}\right) - 11.8\left(\frac{0.783}{1.118}\right) = 24.7 \times \frac{0.752}{0.783}$$

adjusted Q_{10} = 23.7 for T_c = 93.4 min

$Q_{10} = 171.2 + 23.7 = 194.9$

Q_{10} = 194.9 ahead

$Q_{30} = \frac{0.82}{0.70} Q_{10} = \frac{0.82}{0.70}(194.9) = 228.3$

Q_{30} = 228.3 ahead

Junction 10

mid pt between Cty and Wellow

and Junction 9 and Wellow

from Junction 9 assume V = 9

L = 700 then ΔT_c = 1.3 min

adjusted T_c = 93.4 min

ΔT_c = 4.5 min

T_c = 99.7 min

L_{10} = 0.752 for T_c = 93.4 min

L_{10} = 0.739 for T_c = 99.7 min

Junction $Q_{10} = \frac{0.739}{0.752} \times 194.9 = 191.5$

194.9

DEPT OF TRANSPORT FORM QUANTITY CALCULATIONS SHEET

Mercer | 8/29/78 | 04 SM 84 | SHEET 11

Junction 10 cont'd

Calc. peak Q in the combination flow shed 10, and shed 7 system in comparison. To get shed 7 based on ≈ 700' gutter flow length & 30" pipe system then ≈ 900' of pipe system. Assume shed 10 would be combined with ≈ 200' gutter flow (width of shed 10) and ≈ 1700' of pipe system (length of shed 10).

Shed 7	Shed 10
A = 15.54 Ac.	A = 26.53 Ac.
T_c = 14.8 min	T_c = 19.6 min
I_{10} = 1.417	I_{10} = 1.200
Q_{10} = 10.2	Q_{10} = 14.7

$$Q_{10} = 10.2 \times \frac{1.200}{1.417} \times \frac{26.53}{15.54} = 14.9$$

adjustment $Q_{10} = \frac{0.739}{1.200} \times 14.7 = 9.1$

$Q_{10} = 191.5 + 9.1 = 200.6$

Q_{10} = 200.6 shed

$Q_{30} = \frac{0.82}{0.70} \times 200.6 = 235.0$

Q_{30} = 235.0 shed

QUANTITY CALCULATIONS SHEET

Junction 11

Intersection - Willow Rd. and Hamilton.

- from junction 10 assume V = 9.

$l = 700$ then $\Delta T_c = 1.3$ min

previous $T_c = 44.7$ min

$\Delta T_c = 1.3$ min

$T_c = 46.0$ min

$i_{10} = 0.739$ for $T_c = 44.7$ min

$i_{10} = 0.726$ for $T_c = 46.0$ min

adjusted $Q_{10} = \frac{0.726}{0.739} \times 200.6 = 197.1$

- input from portion of shed 11 east of trunk
area equals area shed 10

$Q_{10} = 14.7$ $T_c = 19.6$ min $i_{10} = 1.200$ (see sh. 11)

adjusted $Q_{10} = \frac{0.726}{1.200} \times 14.7 = 8.9$

- input from shed 11 west of trunkline.

$Q_{10} = 33.5$ $T_c = 28.2$ min (see sh. 9) shed 11 south of Rte 101 along Menlo Oaks.
$i_{10} = 0.969$

$Q_{10} = 11.8$ $T_c = 22.1$ min (see sh. 9) portion shed 11 originating at Hedge Rd.
$i_{10} = 1.118$

$Q_{10} = 15.0$ $T_c = 15.8$ min Terminal Ave. Willow St. contribution per Wilsey and Ham.
$i_{10} = 1.363$

Junction 11 cont'd

input from shed 11 west of trunkline (Cont'd)

$Q_{10} = 6.7$ $T_c = 10$ min Hamilton and Henderson per Wilsey and Ham

$L_{10} = 1.784$

$Q_{10} = 3.2$ $T_c = 10$ min Hamilton and Wanless per Wilsey and Ham

$L_{10} = 1.784$

$Q_{10} = 3.2$ $T_c = 10$ min Hamilton and Hockyburne per Wilsey and Ham.

$L_{10} = 1.784$

$Q_{10} = 6.4$ $T_c = 16.2$ min Hamilton and Davies per Wilsey and Ham

$L_{10} = 1.343$

Note: above T_c's are travel times per Wilsey and Ham and are assumed initial 10 minute T_c.

6.7
3.2
3.2
6.4

$$Q_{10} = 33.5\left(\frac{0.226}{0.969}\right) + 11.8\left(\frac{0.726}{1.118}\right) + 15.0\left(\frac{0.726}{1.363}\right) + 13.1\left(\frac{0.726}{1.784}\right)$$

$$+ 6.9\left(\frac{0.726}{1.343}\right) = 99.5$$

adjusted $Q_{10} = 99.5$

$Q_{10} = 193.1 + 8.9 + 99.5 = 255.5$

$Q_{10} = 255.5$ a.c.m.

$$Q_{30} = \frac{0.82}{0.70} \times 255.5 = 299.3$$

$Q_{30} = 299.3$ c.f.s.

QUANTITY CALCULATIONS SHEET

Junction 12

from Junction 11 assume V = 10

L = 600 feet Then ΔTc = 1.3

Previous Tc = 96.0 min

ΔTc = 1.0

Tc = 97.0 min

V = 10
L = 1800
Tc = 50 min
TO PUMP

t_{10} = 0.726 for Tc = 96.0 min

t_{10} = 0.717 for Tc = 97.0 min

adjusted $Q_{10} = \frac{0.717}{0.726} \times 25.75 = 252.3$

from other 12

Q_{10} = 50.2 Tc = 34.7 min t_{10} = 0.904 per original Wilbey and Ham

$Q_{10} = \frac{0.717}{0.904}(50.2) = 39.8$

To be checked from original concept: (see sh. 13)

Q_{10} = 15.0 Tc = 15.8 min t_{10} = 1.363

Q_{10} = 13.1 Tc = 10 min t_{10} = 1.784

Q_{10} = 6.4 Tc = 16.2 min t_{10} = 1.393

$Q_{10} = 15.0/\left(\frac{0.717}{1.363}\right) + 13.1\left(\frac{0.717}{1.784}\right) + 6.4\left(\frac{0.717}{1.393}\right) = 16.6$

adjusted $Q_{10} = (39.8 - 16.6) + 252.3 = 275.5$

Q_{10} = 275.5 ahead.

adjusted $Q_{30} = \frac{82}{170}(275.5) = 322.7$

Q_{30} = 322.7 ahead

QUANTITY CALCULATIONS SHEET

January 23, 1981

Lauren:

Here are the calculations for the Willow Road Storm Drain System which you requested at our January 20th meeting in your office.

Joe Didato ... 923-4251

Bob Moran 923-4191

Feb 1980

Willow Rd. Trunk
w/o Raychem Addition

Q_{10} = 275.5 to old junction 12 (now 13)
T_c = 47 min i = .717

adj $Q_{10} = \frac{.691}{.717}(275.5)$ to junction 14 (pumpstn)

T_c = 50 min i = .691

adj Q_{10} = 265.5

add Raychem input

Q_{10} = 37 T_c = 40 min i = .788

adj $Q_{10} = \frac{.691}{.788}(37) = 32.5$

265.5

298

adj $Q_{25} = \frac{.82}{.70}(298) = 349$

adj $Q_{50} = \frac{.84}{.70}(298) = 358$

to junction 14 (pumpstn) from Willow Rd

Trunk T_c = 5

University trunkline

$Q_{10} = 110$ from Wilson & Hanna to the box culvert (old concept)

$T_c = 38$ min $I = .813$

adj $Q_{10} = \frac{.691}{.813}(110) = 93.5$ to pump station

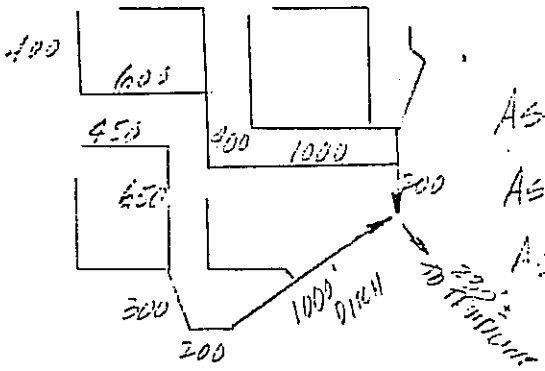
$T_c = 50$ min

adj $Q_{30} = .82(93.5) = 109.5$ say 110

$T_c = 50$ min

total Q_{30} to pump station $= 358 + 110 = 468$

CAYCHEM PROPERTY — CARNDUFF SITE



TOTAL AREA = 62 ACRES

ASSUME RUNOFF FACTOR C = 0.75

ASSUME PIPE TIME 3'/SEC

ASSUME DITCH TIME 1'/SEC

ASSUME INITIAL T_c = 15 min

1600' PIPE TIME @ 3'/SEC = 13.3

1000' DITCH TIME @ 1'/SEC = 16.7

T_c = 40 min

ZONE B2

P_{60} = 0.9

P_{100} = 1.14

CROSS CULVERT UNDER STATE ROADWAY

$Q_{100} = (0.75)(1.14)(62) = 53$ CFS $Q_{10} = 0.7\ Q_{100}$

Q_{10} = 37 CFS

BY CHART D 36" RCP

BY CHART C S = .0055 % (FULL FLOW SLOPE FOR Q_{100})

CULVERT UNDER ACCESS ROAD

$Q_{100} = (0.75)(1.14)(31) = 26.5$ CFS

Q_{10} = 19 CFS

BY CHART D 30" RCP

BY CHART C S = .0035 % (FULL FLOW SLOPE FOR Q_{100})

METHO. 2

QUANTITY CALCULATIONS SHEET

PRELIMINARY PIPE SIZING Q10 FLOW

ENTRANCE HEAD = 1.2 $\frac{V^2}{2g}$ * WITH EXCEPTIONS

END LOCATION		SIZE & TYPE OF CONDUIT	FRICTION SLOPE	LENGTH FT	FRICTION LOSS	VA FPS	ENTRANCE HEAD	H&L ELEV	
JUNCTION	1							111.90	
								112.43	
116.6	2	54" RCP	0.0238	385	0.92	6.54	0.80	109.28	
		54"	0.0238	255	0.61	6.57	0.08	110.71	HL = 0.12 HV
117.4	3							109.18	
		54"	0.0238	400	0.95	6.57	0.08	110.02	HL = 0.12 HV
115.7	4							107.95	
		54"	0.0238	700	1.67	6.54	0.08	106.19	HL = 0.12 HV
112.5	5		0.01		.29	2.76	.93	107.29	
		~~54" 66"~~	~~0.0273~~	292	0.83	7.12	0.94		
113.8	6							105.47	
		66"	0.0221	500	1.11	7.20	0.92		
111.1	7							103.39	
		66"	0.0230	420	0.97	7.34	1.00		
109.2	8							101.42	HL = 0.12 HV
		66"	0.0230	330	0.76	7.34	0.10		
108.5	9							100.56	
JUNCTION		66"	0.0257	700	2.01	8.20	1.26		
106.9	10							97.20	
		66"	0.0304	700	2.13	8.44	1.33		
104.5	11							93.83	
		78"	0.0203	600	1.22	7.70	1.10		
	12							91.51	
POND STATION		78"	0.0235	1800	4.23	8.30	1.24	86.00	CROWN AT OUTLET

MEAN SEA LEVEL ELEV = 100.00

* HL = 0.12 HV VELOCITY HEAD

REV. 7/3/79

WILLIAMSBURG TOWNE

DEPARTMENT OF TRANSPORTATION
QUANTITY CALCULATIONS SHEET

PRELIMINARY PIPE SIZING

CALC BY: MOREN | DATE: 10/2/78
CHECK BY: REV. | DATE: 5/3/79
DIST. | CO. | ROUTE | SUFF. | SHEET: 44
ITEM: WILLOW TRUNK

LOCATION		GRND ELEV.	SIZE & TYPE OF CONDUIT	F.L. US	F.L. DS	Q10	Q30	SLOPE GROUND	SLOPE USED	L FT	Vn FPS	HGL ELEV. Q10	HGL ELEV. Q30
JUNCTION	1	116.4										111.90	
			54" RCP	106.6	105.4	104.0	121.8		.003	385		112.43	
	2	116.6										109.68	
			54"	105.4	104.6	104.0	121.8		.003	255		110.71	
	3	117.4										109.18	
			54"	104.6	103.3	104.0	121.8	.004	.003	400		110.02	
	4	115.7										107.99	
			54"	103.3	101.0	104.0	121.8	.0045	.023	200		108.59	
	5	112.5		100.0	99.1							106.19	113.69
			54" 66"	101.0	100.1	113.2	132.6		.003	252		107.04	115.16
	6	113.8										105.47	112.23
			66"	99.1	97.5	104.0	200.3	.005	.003	320			
	7	111.1										103.39	109.89
			66"	97.5	96.1	104.4	204.3	.0045	.003	420			
	8	109.2										101.92	107.18
			66"	96.1	95.0	104.4	204.3	.022	.003	330			
	9	108.5										100.56	106.00
Hollow Hollow			66"	95.5	89.7	104.9	225.3	.003	.003	700			
	10	106.4										97.29	101.52
			66"	89.7	87.3	200.6	235.0	.003	.003	700			
	11	104.5										92.83	96.76
			78"	84.3	83.1	255.5	299.3		.002	600			
	12	108.5										91.51	93.57
LIFT STATION			78"	83.1	79.5	255.5	322.7		.002	1800			
												86.40	86.00

MEAN SEA LEVEL ELEV. = 100.00

BKF Hydrology, HEC-1 and Tables from July 9, 1990, report

TABLE 1
PRECIPITATION
DURATION, AMOUNT AND INTENSITY

DURATION	PEAK PRECIP INCHES	AVERAGE INTENSITY IN/HR
10 MINUTES	0.29	1.76
15 MINUTES	0.36	1.46
30 MINUTES	0.51	1.02
1 HOURS	0.69	0.69
2 HOURS	0.94	0.47
3 HOURS	1.11	0.37
6 HOURS	1.61	0.27

TABLE 2
INFILTRATION PARAMETERS

SUBAREA	AREA ACRES	PERCENT OF AREA IMPERVIOUS EXISTING %	PERCENT OF AREA IMPERVIOUS PROPOSED %	SCS CURVE NUMBER (PERVIOUS)	SCS CURVE NUMBER (IMPERVIOUS)
ST PAT. → a1	93.7	14	32	61	98
a2	65.3	25	25	61	98
a3	18.6	65	65	61	98
a4	69.1	25	25	61	98
a5	32.3	25	25	61	98
a6	13.4	38	38	61	98
a7	18.9	38	38	61	98
a8	21.8	38	38	61	98
a9	22.4	25	25	61	98
a10	14.1	38	38	61	98
a11	15.0	38	38	61	98
a12	14.0	38	38	61	98
a13	10.2	38	38	61	98
TOTAL	408.6	28	32	61	

TABLE 3
TIME OF CONCENTRATION

SUBAREA	MAXIMUM ELEVATION FEET	MINIMUM ELEVATION FEET	LENGTH FEET	SLOPE FT/FT	Lc FEET	"n"	KIRPICH METHOD tc HOURS	SCS UNIT HYDROGRAPH METHOD Tc HOURS
a1	52.3	41	3570	0.0032	1200	0.02	0.648	0.432
a2	58	40	3200	0.0056	1420	0.02	0.478	0.411
a3	45	40	2100	0.0024	1050	0.02	0.481	0.386
a4	54	35	3400	0.0056	1900	0.02	0.502	0.445
a5	49	33	2150	0.0074	750	0.02	0.316	0.324
a6	36	29	1350	0.0052	900	0.02	0.254	0.317
a7	34	29	2450	0.0020	900	0.02	0.575	0.392
a8	46	31	1400	0.0107	700	0.02	0.197	0.286
a9	41	28	2150	0.0060	1075	0.05	0.342	0.677
a10	34	25	1600	0.0056	700	0.02	0.280	0.310
a11	30	25	1550	0.0032	1000	0.02	0.339	0.348
a12	29	22	1830	0.0038	1050	0.02	0.360	0.357
a13	28	22	1600	0.0038	1100	0.02	0.327	0.352
a14	40	29	2500	0.0044	1250	0.02	0.434	0.389

Kirpich Chow, 14-7
.00013 * L^.77 / S^.385
L IN FEET, S IN FT/FT
GIVES TIME OF CONCENTRATION IN HOURS

SCS

(5/3) * ((26 * N * ((L * Lc / SQRT S) ^.33) + 1/12 HOURS)

L AND Lc IN MILES
Lc IS DISTANCE TO CENTROID OF SUBAREA
S IN FEET PER MILE
GIVES TIME OF CONCENTRATION IN HOURS

TABLE 4
PEAK FLOW RATE

SUBAREA	LOCATION	EXISTING CONDITIONS		PROPOSED CONDITIONS		ESTIMATED FROM
		SUBAREAS CFS	JUNCTIONS CFS	SUBAREAS CFS	JUNCTIONS CFS	WILSEY & HAM CFS
1	ST. PATRICKS	8		26		8
2		15		15		
1-2	WILLOW & NASH		20		41	16
3		11		11		
1-3	WILLOW & GILBERT		32		52	25
4		15		15		
1-4	GILBERT & NOVA		46		66	47
5		8		8		
1-5	GILBERT & LAUREL		53		73	56
6		5		5		
7		7		7		
1-7			63		83	
8		9		9		
1-8			70		89	
9	LAUREL &	4		4		
1-9	WEST O'CONNOR		73		93	62
10		6		6		
11		6		6		
1-11	LAUREL & DURHAM		83		101	75
12		5		5		
13		4		4		
1-13	LAUREL & ROUTE 101		90		108	91

TABLE 5
RATIONAL METHOD COMPUTATION

1:	TIME OF CONCENTRATION:	0.432 HRS
	(KIRPICH METHOD)	25.9 MIN
2:	FROM CITY OF PALO ALTO CURVE:	
	INTENSITY =	1.1 IN/HR
3:	AREA	0.1464 SQ. MILES
		93.7 ACRES
4:	"C" FACTOR	
	IMPERVIOUS AREA =	31.7%
	PERVIOUS AREA =	68.3%
	IMPERVIOUS AREA, C =	0.8
	PERVIOUS AREA:	
	SLOPE = <2%	
	SOIL IS SANDY CLAY	
	USE C=	0.08
	WEIGHTED C =	0.31
	FLOW:	
	C =	0.31
	I =	1.1 IN/HR
	A =	93.7 ACRES
	Q =	31.8 CFS

TABLE 5

BELLE-HAVEN STORM DRAIN SYSTEM
STREET STORM DRAIN DESIGN

LINE OR STREET	STRUCT. I.D.	INPUT TO STRUC (CFS)	DESIGN FLOW (CFS)	REPORTED GROUND ELEV. (FT.)	SURVEYED GROUND ELEV. (FT.)	ENTRANC INV. ELEV. (FT.)	EXIT INV. ELEV. (FT.)	PIPE LENGTH L (FT.)	PIPE DIAM. D (IN.)	PIPE SLOPE S (FT./FT.)	DEPTH OF FLOW IN PIPE (FT)	VEL IN PIPE (FPS)	EGL (FT)	HGL (FT)	FREE-BOARD (FT)	FALL IN PIPE (FT)	FRICT. LOSS (FT.)	VELOCITY MANHOLE LOSSES (FEET)	TOTAL ENERGY LOSS (FEET)	FRICTION SLOPE (FT/FT)
							132.00													
22		36.5	36.5					507	36	0.0040		5.2				2.0	1.5			
	21				141.02	129.97	129.97				4.4		135.0	134.4	6.6			0.1	0.9	0.0049
21		7.5	44.0					181	36	0.0040		6.2				0.7	0.8			
	20				140.90	129.25	129.25				4.3		134.1	133.5	7.4			0.1	0.2	0.0092
20		0.0	44.0					25	36	0.0040		6.2				0.1	0.1			
	19				141.06	129.15	129.15				4.1		133.9	133.3	7.8			0.1	0.8	0.0051
19		0.0	44.0					165	36	0.0040		6.2				0.7	0.7			
	18				140.17	128.49	128.49				3.7		133.1	132.2	7.9			0.1	0.5	0.0083
18		7.5	51.5					61	36	0.0039		7.3				0.2	0.4			
	17				141.00	128.25	128.25				3.5		132.5	131.7	9.3			0.2	2.7	0.0063
17		0.0	51.5					425	36	0.0040		7.3				1.7	2.5			
	16				138.30	126.55	125.55				3.0		129.8	129.5	8.8			0.1	0.7	0.0018
16		4.7	56.2					355	48	0.0040		4.5				1.4	0.5			
	15				137.12	124.13	124.13				4.0		128.4	128.1	9.0			0.0	0.3	0.0018
15		4.7	60.8					184	48	0.0040		4.8				0.7	0.3			
	14				136.28	123.39	123.39				4.0		127.8	127.4	8.9			0.0	0.8	0.0021
14		4.7	65.5					363	48	0.0040		5.2				1.5	0.8			
	13				133.10	121.94	120.44				3.8		126.2	125.8	7.3			0.0	0.1	0.0023
13		1.8	67.3					38	48	0.0016		5.4				0.1	0.1			
	12				133.04	120.38	120.38				5.3		126.1	125.7	7.4			0.0	1.0	0.0022
12		0.0	67.3					435	48	0.0015		5.4				0.6	1.0			
	11				132.01	119.73	119.73				5.0		125.2	124.7	7.3			0.0	1.2	0.0026
11		5.9	73.1					472	48	0.0037		5.8				1.8	1.2			
	10				130.38	117.98	117.98				5.4		123.9	123.4	7.0			0.0	1.6	0.0031
10		6.7	79.8					513	48	0.0030		6.4				1.5	1.6			
	9				127.14	116.44	116.44				5.3		122.3	121.7	5.4			0.0	0.4	0.0037
9		7.1	86.9					114	48	0.0020		6.9				0.2	0.4			
	8				126.92	116.21	116.21				5.0		121.9	121.2	5.7			0.0	0.4	0.0012
8		4.0	90.9					356	60	0.0090		4.6				3.2	0.4			
	7				125.85	113.00	113.00				7.5		120.9	120.5	5.3			0.0	0.2	0.0013
7		2.8	93.7					157	60	0.0020		4.8				0.3	0.2			
	6				123.75	112.69	112.69				7.6		120.7	120.3	3.4			0.0	0.6	0.0014
6		2.0	95.7					469	60	0.0020		4.9				0.9	0.6			
	5				122.60	111.75	111.75				7.9		120.0	119.7	2.9			0.0	0.5	0.0015
5		4.8	100.5					314	60	0.0025		5.1				0.8	0.5			
	4				121.87	110.97	110.97				8.2		119.6	119.2	2.7			0.0	0.6	0.0016
4		2.3	102.8					367	60	0.0025		5.2				0.9	0.6			
	3				120.55	110.05	110.05				8.5		119.0	118.6	2.0			0.0	0.5	0.0016
3		2.3	105.2					290	60	0.0025		5.4				0.7	0.5			
	2				119.50	109.33	109.33				8.7		118.5	118.1	1.4			0.0	1.2	0.0030
2		2.3	107.5					410	54	0.0097		6.8				4.0	1.2			
	1				117.47	105.37	105.37				11.2		117.3	116.6	0.9			0.0	0.6	0.0030
1		0.0	107.5					184	54	0.0020		6.8				0.4	0.5			
	CS1			116.4	115.68	105.00	105.00				11.0		116.7	116.0	0.4			0.0	1.4	0.0037
C1		11.5	119.0					380	54	0.0029		7.5				1.1	1.4			
	CS2			116.0		103.90	103.90				10.5		115.3	114.4	2.2			0.0	1.0	0.0037
C2		3.0	119.0					260	54	0.0023		7.5				0.6	1.0			
	CS3			117.3		103.30	103.30				10.2		114.4	113.5	3.9			0.0	1.5	0.0037
C3		1.0	120.0					400	54	0.0022		7.5				0.9	1.5			

TABLE 5 (cont.)

BELLE-HAVEN STORM DRAIN SYSTEM
STREET STORM DRAIN DESIGN

	CS4			115.7		102.40	102.40				9.6		112.9	112.0	3.7			0.0	3.1	0.0044
C4		10.0	130.0					700	54	0.0020		8.2				1.4	3.1			
	CS5			112.5		101.00	100.10				7.8		109.8	108.8	3.7			0.1	1.0	0.0034
C5		58.0	188.0					300	66	0.0033		7.9				1.0	0.9			
	CS6			113.8		99.10	99.10				8.7		108.8	107.8	6.0			0.0	1.6	0.0033
C6		3.0	191.0					500	66	0.0032		8.0				1.6	1.6			
	CS7			111.1		97.50	97.50				8.6		107.2	106.1	5.0			0.0	1.3	0.0032
C7		-2.0	189.0					400	66	0.0035		8.0				1.4	1.3			
	CS8			109.2		96.10	92.50				8.8		105.9	104.9	4.3			0.0	1.4	0.0040
C8		22.0	211.0					340	66	0.0032		8.9				1.1	1.3			
	CS9			108.5		91.40	88.14				11.9		104.5	103.3	5.2			0.0	2.9	0.0042
C9		5.0	216.0					700	66	0.0021		9.1				1.4	2.9			
	CS10			106.4		86.70	86.70				13.6		101.6	100.3	6.1			0.0	4.6	0.0065
C10		55.0	271.0					700	66	0.0034		11.4				2.4	4.6			
	CS11			104.5		84.30	84.30				10.4		97.0	94.7	9.8			0.0	3.8	0.0076
C11		20.0	291.0					500	66	0.0010		12.2				0.5	3.8			
	CS12			108.5		83.80	83.30				7.1		93.3	90.9	17.6			0.0	5.3	0.0031
C12		0.0	291.0					1720	78	0.0006		8.8				1.0	5.3			
	CS13			102.0		82.30	82.30				4.5		87.9	86.8	15.2			0.0	0.4	0.0041
C13		39.0	330.0					100	78	0.0230		9.9				2.3	0.4			
	CS14					80.00	79.80						87.5	86.0				0.0		

MANNING'S n : 0.0

Junction Loss Factors:

>48" 0.0

<42" 0.2

county of santa clara

DEPARTMENT OF PUBLIC WORKS

APPROVED: _____ DIRECTOR

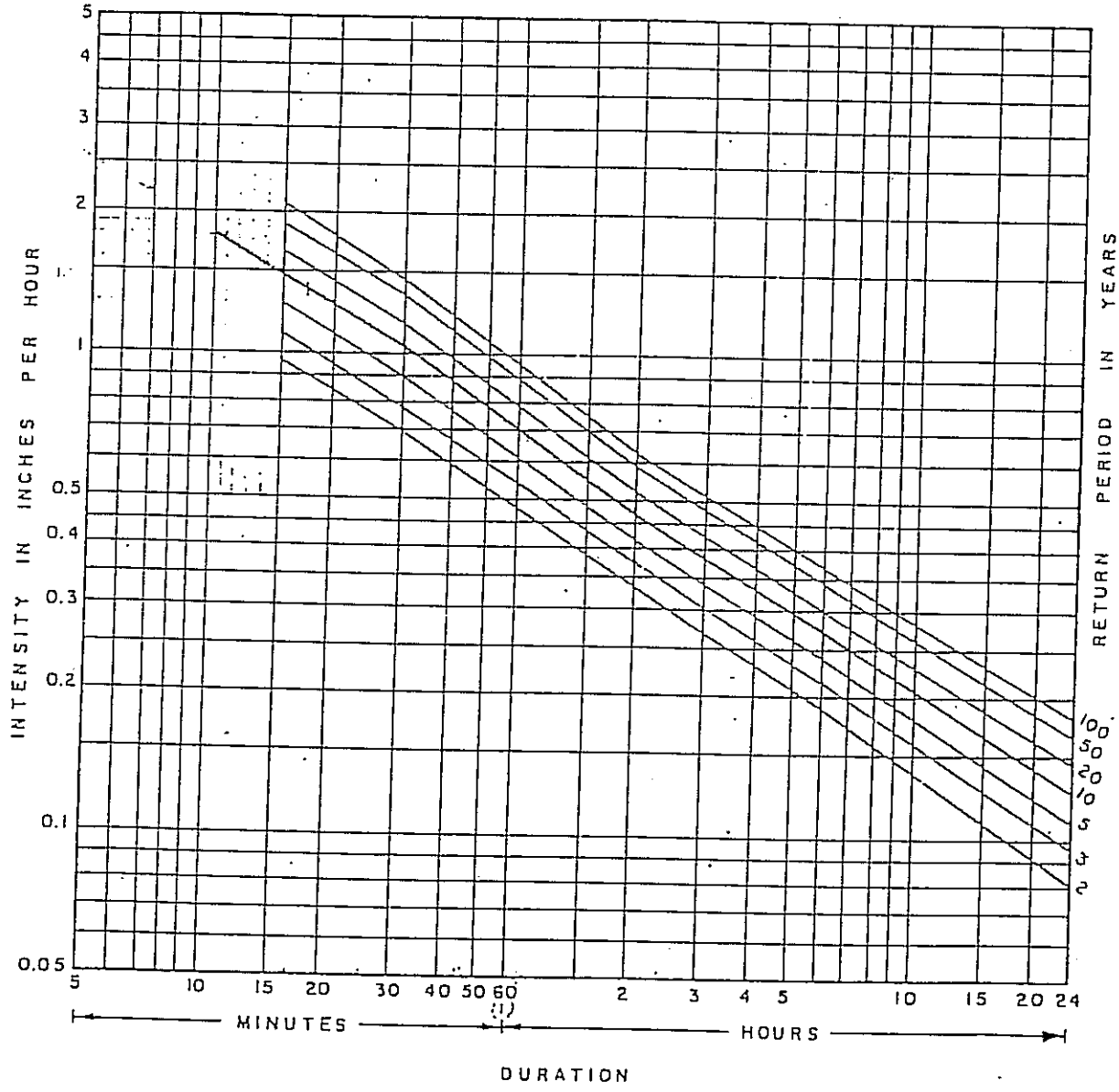
FIGURE 5

DRAINAGE MANUAL

PRECIPITATION

INTENSITY - DURATION - FREQUENCY

PALO ALTO



STATION NO. 664600

ADJUSTED MEAN ANNUAL PRECIPITATION 14.6

1911 - 1961

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*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*      BY THE COE IN FEBRUARY 1981      *
*           REVISED 02 AUG 88           *
*                                       *
*  RUN DATE  06/22/1990  TIME  16:45:46 *
*                                       *
*****************************************
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*****************************************
*                                       *
*     DODSON AND ASSOCIATES, INC.       *
*   HYDROLOGIST AND CIVIL ENGINEERS     *
*       7015 W TIDWELL SUITE 107        *
*         HOUSTON, TEXAS  77092         *
*           (713) 895-8322              *
*                                       *
*****************************************
```


```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X       XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX  XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT


```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  1       ID        ST PATRICKS SEMINARY
  2       ID        VINTAGE PROPERTIES      900190-10       EWB
  3       ID        EXISTING CONDITIONS
  4       IT      2       0       0     300
  5       IN      2
  6       IO      5
  7       JR    PREC      1

  8       KK      A1
  9       KM          RUNOFF FROM A1 - ST PATRICKS SEMINARY SITE     EXISTING
 10       PB    1.61
 11       BA  0.1464
```

```
12        PI  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050
13        PI  0.0050  0.0050  0.0050  0.0050  0.0050  0.0060  0.0060  0.0060  0.0060  0.0060
14        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
15        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
16        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0067  0.0067  0.0067  0.0067  0.0067
17        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067
18        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0087  0.0087
19        PI  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0133  0.0133
20        PI  0.0150  0.0150  0.0150  0.0183  0.0183  0.0233  0.0267  0.0300  0.0393  0.0633
21        PI   .1167  0.0500  0.0307  0.0300  0.0233  0.0183  0.0183  0.0183  0.0150  0.0150
22        PI  0.0133  0.0133  0.0133  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087
23        PI  0.0087  0.0087  0.0087  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067
24        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067
25        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0060  0.0060  0.0060  0.0060  0.0060
26        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
27        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
28        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0050  0.0050  0.0050  0.0050  0.0050
29        PI  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050
30        LS        0      61      14
31        UD     .799

32        KK     RA2
33        KM         ROUTE RUNOFF FROM A1 TO A2
34        RM       3 0.05982     0.5

35        KK      A2
36        KM         RUNOFF FROM SUBAREA A2 - SANTA MONICA TO WILLOW, MIDDLEFIELD TO COLEMAN
37        BA  0.1020
38        LS        0      61      25
39        UD  0.4110

40        KK    A1-2
41        KM         COMBINE RUNOFF FROM SUBAREAS A1 + A2 = A1-2
42        HC        2

43        KK      A3
44        KM         RUNOFF FROM SUBAREA A3 - COLEMAN PLACE & AREA
45        BA  0.0290
46        LS        0      61      65
47        UD  0.3859
```



```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

48        KK     RA4
49        KM         ROUTE RUNOFF FROM A3 TO A2
50        RM       3 0.04273     0.5

51        KK    A1-3
```

```
52          KM          COMBINE RUNOFF FROM SUBAREAS A1-2 + A3 = A1-3
53          HC       2

54          KK     RA4
55          KM          ROUTE RUNOFF A1-3 FROM A2 TO A4
56          RM       3 0.04273     0.5

57          KK      A4
58          KM          RUNOFF FROM SUBAREA A4 - WILLOW TO CONCORD - WOODLAND TO GILBERT
59          BA  0.1079
60          LS       0      61      25
61          UD  0.4449

62          KK    A1-4
63          KM          COMBINE RUNOFF FROM SUBAREAS A1-3 + A4 = A1-4
64          HC       2

65          KK     RA5
66          KM          ROUTE RUNOFF A1-4 FROM A4 TO A5
67          RM       3 0.03205     0.5

68          KK      A5
69          KM          RUNOFF FROM SUBAREA A5 - GILBERT WOODLAND & CONCORD
70          BA  0.0504
71          LS       0      61      25
72          UD  0.3235

73          KK    A1-5
74          KM          COMBINE RUNOFF FROM SUBAREAS A1-4 + A5 = A1-5
75          HC       2

76          KK     RA7
77          KM          ROUTE RUNOFF A1-5 FROM A5 TO A7
78          RM       3   .0406      .5

79          KK      A6
80          KM          RUNOFF FROM SUBAREA A6 - GILBERT WEST O'CONNER-LAUREL POPE
81          BA  0.0209
82          LS       0      61      38
83          UD  0.3173

84          KK      A7
85          KM          RUNOFF FROM SUBAREA A7 - GILBERT WEST O'CONNER - LAURAL MENALTO
86          BA  0.0295
87          LS       0      61      38
88          UD  0.3923
```



```
LINE        ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
```

```
KK    A6-7
KM          COMBINE RUNOFF FROM SUBAREAS A6 + A7 = A6-7
HC       2

KK    A1-7
KM          COMBINE RUNOFF FROM SUBAREAS A1-5 + A6-7 = A1-7
HC       2

KK    RA7
KM          ROUTE RUNOFF A1-7 FROM A7 TO A9
RM       2   .0128      .5

KK    A8
KM          RUNOFF FROM SUBAREA A8 - WOODLAND O'KEEFE - MENALTO SOUTH
BA  0.0340
LS       0      61      38
UD  0.2864

KK   RA11A
KM          ROUTE RUNOFF A1-9 FROM A9 TO A11
RM       3   .0278      .5

KK    A1-8
KM          COMBINE RUNOFF FROM SUBAREAS A1-7 + A8 = A1-8
HC       2

KK     A9
KM          RUNOFF FROM SUBAREA A9 - WILLOW LAUREL - GILBERT O'KEEFE
BA   0.035
LS       0      61      25
UD     .70

KK    A1-9
KM          COMBINE RUNOFF FROM SUBAREAS A1-8 + A9 = A1-9
HC       2

KK   RA11A
KM          ROUTE RUNOFF A1-9 FROM A9 TO A11
RM       3   .0278      .5

KK    A10
KM          RUNOFF FROM SUBAREA A10 - DURHAM O'KEEFE-LAUREL WILLOW
BA  0.0221
LS       0      61      38
UD  0.3103

KK    A11
KM          RUNOFF FROM SUBAREA A11 - DURHAM WEST O'CONNER - LAURAL MENALTO
BA  0.0235
```

```
 128          LS       0      61      38
 129          UD  0.3480
                                        HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 130          KK  A10-11
 131          KM          COMBINE RUNOFF FROM SUBAREAS A10 + A11 = A10-11
 132          HC       2

 133          KK   A1-11
 134          KM          COMBINE RUNOFF FROM SUBAREAS A1-9 + A10-11 = A1-11
 135          HC       2

 136          KK    RA13
 137          KM          ROUTE RUNOFF A1-11&14 FROM A11 TO A13
 138          RM       3   .0427      .5

 139          KK     A12
 140          KM          RUNOFF FROM SUBAREA A12 - DURHAM I-101 - LAUREL WILLOW
 141          BA  0.0218
 142          LS       0      61      38
 143          UD  0.3572

 144          KK     A13
 145          KM          RUNOFF FROM SUBAREA A13 - DURHAM I-101 - LAURAL MENALTO
 146          BA  0.0159
 147          LS       0      61      38
 148          UD  0.3516

 149          KK  A12-13
 150          KM          COMBINE RUNOFF FROM SUBAREAS A12 + A13 = A12-13
 151          HC       2

 152          KK   A1-13
 153          KM          COMBINE RUNOFF FROM SUBAREAS A1-11 + A12-13    = A1-13
 154          HC       2
 155          ZZ
```

```
**************************************
*                                    *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1) *
*    BY THE COE IN FEBRUARY 1981     *
*         REVISED 02 AUG 88          *
*                                    *
**************************************
```

```
**************************************
*                                    *
*    DODSON AND ASSOCIATES, INC.     *
*  HYDROLOGIST AND CIVIL ENGINEERS   *
*     7015 W TIDWELL SUITE 107       *
*       HOUSTON, TEXAS  77092        *
**************************************
```

```
* RUN DATE  06/22/1990  TIME  16:45:46 *                    *          (713) 895-8322          *
*                                      *                    *                                  *
****************************************                    ************************************
```

ST PATRICKS SEMINARY
VINTAGE PROPERTIES 900190-10 EWB
EXISTING CONDITIONS

6 IO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA

NMIN		2	MINUTES IN COMPUTATION INTERVAL
IDATE	1	0	STARTING DATE
ITIME		0000	STARTING TIME
NQ		300	NUMBER OF HYDROGRAPH ORDINATES
NDDATE	1	0	ENDING DATE
NDTIME		0958	ENDING TIME
ICENT		19	CENTURY MARK

COMPUTATION INTERVAL .03 HOURS
TOTAL TIME BASE 9.97 HOURS

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

JP MULTI-PLAN OPTION

NPLAN	1	NUMBER OF PLANS

JR MULTI-RATIO OPTION
RATIOS OF PRECIPITATION
1.00

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION RATIO 1
					1.00
HYDROGRAPH AT	A1	.15	1	FLOW	8.
				TIME	3.83
ROUTED TO	RA2	.15	1	FLOW	8.
				TIME	3.90
HYDROGRAPH AT	A2	.10	1	FLOW	15.
				TIME	3.43
2 COMBINED AT	A1-2	.25	1	FLOW	20.
				TIME	3.50
HYDROGRAPH AT	A3	.03	1	FLOW	11.
				TIME	3.40
ROUTED TO	RA4	.03	1	FLOW	11.
				TIME	3.47
2 COMBINED AT	A1-3	.28	1	FLOW	32.
				TIME	3.47
ROUTED TO	RA4	.28	1	FLOW	32.
				TIME	3.53
HYDROGRAPH AT	A4	.11	1	FLOW	15.
				TIME	3.47
2 COMBINED AT	A1-4	.39	1	FLOW	46.
				TIME	3.50
ROUTED TO	RA5	.39	1	FLOW	46.
				TIME	3.53
HYDROGRAPH AT	A5	.05	1	FLOW	8.
				TIME	3.33
2 COMBINED AT	A1-5	.44	1	FLOW	53.
				TIME	3.50
ROUTED TO	RA7	.44	1	FLOW	53.
				TIME	3.53
HYDROGRAPH AT	A6	.02	1	FLOW	5.
				TIME	3.33

HYDROGRAPH AT	A7	.03	1	FLOW	7.
				TIME	3.43
2 COMBINED AT	A6-7	.05	1	FLOW	12.
				TIME	3.37
2 COMBINED AT	A1-7	.49	1	FLOW	63.
				TIME	3.50
ROUTED TO	RA7	.49	1	FLOW	63.
				TIME	3.53
HYDROGRAPH AT	A8	.03	1	FLOW	9.
				TIME	3.30
ROUTED TO	RA11A	.03	1	FLOW	9.
				TIME	3.33
2 COMBINED AT	A1-8	.52	1	FLOW	70.
				TIME	3.50
HYDROGRAPH AT	A9	.04	1	FLOW	4.
				TIME	3.73
2 COMBINED AT	A1-9	.56	1	FLOW	73.
				TIME	3.50
ROUTED TO	RA11A	.56	1	FLOW	73.
				TIME	3.53
HYDROGRAPH AT	A10	.02	1	FLOW	6.
				TIME	3.33
HYDROGRAPH AT	A11	.02	1	FLOW	6.
				TIME	3.37
2 COMBINED AT	A10-11	.05	1	FLOW	11.
				TIME	3.37
2 COMBINED AT	A1-11	.60	1	FLOW	83.
				TIME	3.50
ROUTED TO	RA13	.60	1	FLOW	83.
				TIME	3.57
HYDROGRAPH AT	A12	.02	1	FLOW	5.
				TIME	3.37
HYDROGRAPH AT	A13	.02	1	FLOW	4.
				TIME	3.37

2 COMBINED AT	A12-13	.04	1	FLOW	9.
				TIME	3.37
2 COMBINED AT	A1-13	.64	1	FLOW	90.
				TIME	3.53

*** NORMAL END OF HEC-1 ***

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*      BY THE COE IN FEBRUARY 1981      *
*           REVISED 02 AUG 88           *
*                                       *
*  RUN DATE  06/22/1990  TIME  16:52:07 *
*                                       *
*****************************************
```

```
**********************************
*                                *
*    DODSON AND ASSOCIATES, INC.
*  HYDROLOGIST AND CIVIL ENGINEER
*      7015 W TIDWELL SUITE 107
*        HOUSTON, TEXAS  77092
*          (713) 895-8322
*                                *
**********************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X                X
XXXXXXX  XXXX     X       XXXXX    X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT PAGE 1

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

    1         ID         ST PATRICKS SEMINARY
    2         ID         VINTAGE PROPERTIES      900190-10       EWB
    3         ID         PROPOSED DEVELOPMENT
    4         IT       2       0       0     300
    5         IN       2
    6         IO       5
    7         JR    PREC       1

    8         KK      A1
    9         KM         RUNOFF FROM A1 - ST PATRICKS SEMINARY SITE
   10         PB    1.61
   11         BA  0.1464
```

```
 12        PI  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050
 13        PI  0.0050  0.0050  0.0050  0.0050  0.0050  0.0060  0.0060  0.0060  0.0060  0.0060
 14        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
 15        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
 16        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0067  0.0067  0.0067  0.0067  0.0067
 17        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067
 18        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0087  0.0087
 19        PI  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0133  0.0133
 20        PI  0.0150  0.0150  0.0150  0.0183  0.0183  0.0233  0.0267  0.0300  0.0393  0.0633
 21        PI  .1167  0.0500  0.0307  0.0300  0.0233  0.0183  0.0183  0.0183  0.0150  0.0150
 22        PI  0.0133  0.0133  0.0133  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087  0.0087
 23        PI  0.0087  0.0087  0.0087  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067
 24        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067  0.0067
 25        PI  0.0067  0.0067  0.0067  0.0067  0.0067  0.0060  0.0060  0.0060  0.0060  0.0060
 26        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
 27        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060  0.0060
 28        PI  0.0060  0.0060  0.0060  0.0060  0.0060  0.0050  0.0050  0.0050  0.0050  0.0050
 29        PI  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050  0.0050
 30        LS       0      61      32
 31        UD  0.4327

 32        KK     RA2
 33        KM          ROUTE RUNOFF FROM A1 TO A2
 34        RM       3 0.05982     0.5

 35        KK      A2
 36        KM          RUNOFF FROM SUBAREA A2 - SANTA MONICA TO WILLOW, MIDDLEFIELD TO COLEMAN
 37        BA  0.1020
 38        LS       0      61      25
 39        UD  0.4110

 40        KK    A1-2
 41        KM          COMBINE RUNOFF FROM SUBAREAS A1 + A2 = A1-2
 42        HC       2

 43        KK      A3
 44        KM          RUNOFF FROM SUBAREA A3 - COLEMAN PLACE & AREA
 45        BA  0.0290
 46        LS       0      61      65
 47        UD  0.3859
```



```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 48        KK     RA4
 49        KM          ROUTE RUNOFF FROM A3 TO A2
 50        RM       3 0.04273     0.5

 51        KK    A1-3
```

```
89          KK    A6-7
90          KM          COMBINE RUNOFF FROM SUBAREAS A6 + A7 = A6-7
91          HC        2

92          KK    A1-7
93          KM          COMBINE RUNOFF FROM SUBAREAS A1-5 + A6-7 = A1-7
94          HC        2

95          KK     RA7
96          KM          ROUTE RUNOFF A1-7 FROM A7 TO A9
97          RM        2   .0128      .5

98          KK      A8
99          KM          RUNOFF FROM SUBAREA A8 - WOODLAND O'KEEFE - MENALTO SOUTH
100         BA  0.0340
101         LS        0      61      38
102         UD  0.2864

103         KK   RA11A
104         KM          ROUTE RUNOFF A1-9 FROM A9 TO A11
105         RM        3   .0278      .5

106         KK    A1-8
107         KM          COMBINE RUNOFF FROM SUBAREAS A1-7 + A8 = A1-8
108         HC        2

109         KK      A9
110         KM          RUNOFF FROM SUBAREA A9 - WILLOW LAUREL - GILBERT O'KEEFE
111         BA   0.035
112         LS        0      61      25
113         UD      .70

114         KK    A1-9
115         KM          COMBINE RUNOFF FROM SUBAREAS A1-8 + A9 = A1-9
116         HC        2

117         KK   RA11A
118         KM          ROUTE RUNOFF A1-9 FROM A9 TO A11
119         RM        3   .0278      .5

120         KK     A10
121         KM          RUNOFF FROM SUBAREA A10 - DURHAM O'KEEFE-LAUREL WILLOW
122         BA  0.0221
123         LS        0      61      38
124         UD  0.3103

125         KK     A11
126         KM          RUNOFF FROM SUBAREA A11 - DURHAM WEST O'CONNER - LAURAL MENALTO
127         BA  0.0235
```

```
 128          LS       0      61      38
 129          UD  0.3480
                                        HEC-1 INPUT                                        PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 130          KK  A10-11
 131          KM         COMBINE RUNOFF FROM SUBAREAS A10 + A11 = A10-11
 132          HC       2

 133          KK   A1-11
 134          KM         COMBINE RUNOFF FROM SUBAREAS A1-9 + A10-11 = A1-11
 135          HC       2

 136          KK    RA13
 137          KM         ROUTE RUNOFF A1-11&14 FROM A11 TO A13
 138          RM       3   .0427      .5

 139          KK     A12
 140          KM         RUNOFF FROM SUBAREA A12 - DURHAM I-101 - LAUREL WILLOW
 141          BA  0.0218
 142          LS       0      61      38
 143          UD  0.3572

 144          KK     A13
 145          KM         RUNOFF FROM SUBAREA A13 - DURHAM I-101 - LAURAL MENALTO
 146          BA  0.0159
 147          LS       0      61      38
 148          UD  0.3516

 149          KK  A12-13
 150          KM         COMBINE RUNOFF FROM SUBAREAS A12 + A13 = A12-13
 151          HC       2

 152          KK   A1-13
 153          KM         COMBINE RUNOFF FROM SUBAREAS A1-11 + A12-13    = A1-13
 154          HC       2
 155          ZZ
```

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*      BY THE COE IN FEBRUARY 1981      *
*           REVISED 02 AUG 88           *
*                                       *
*  RUN DATE  06/22/1990  TIME  16:52:07 *
*                                       *
*****************************************
```

```
*********************************
*                               *
*     DODSON AND ASSOCIATES, INC.
*   HYDROLOGIST AND CIVIL ENGINEER
*       7015 W TIDWELL SUITE 107
*         HOUSTON, TEXAS  77092
*           (713) 895-8322
*                               *
*********************************
```

ST PATRICKS SEMINARY
VINTAGE PROPERTIES 900190-10 EWB
PROPOSED DEVELOPMENT

6 IO OUTPUT CONTROL VARIABLES

IPRNT	5	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA

NMIN		2	MINUTES IN COMPUTATION INTERVAL
IDATE	1	0	STARTING DATE
ITIME		0000	STARTING TIME
NQ		300	NUMBER OF HYDROGRAPH ORDINATES
NDDATE	1	0	ENDING DATE
NDTIME		0958	ENDING TIME
ICENT		19	CENTURY MARK

COMPUTATION INTERVAL .03 HOURS
TOTAL TIME BASE 9.97 HOURS

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

JP MULTI-PLAN OPTION
NPLAN 1 NUMBER OF PLANS

JR MULTI-RATIO OPTION
RATIOS OF PRECIPITATION
1.00

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

				RATIOS APPLIED TO PRECIPITATION
OPERATION	STATION	AREA	PLAN	RATIO 1
				1.00

HYDROGRAPH AT	A1	.15	1	FLOW	26.
				TIME	3.47
ROUTED TO	RA2	.15	1	FLOW	26.
				TIME	3.53
HYDROGRAPH AT	A2	.10	1	FLOW	15.
				TIME	3.43
2 COMBINED AT	A1-2	.25	1	FLOW	41.
				TIME	3.50
HYDROGRAPH AT	A3	.03	1	FLOW	11.
				TIME	3.40
ROUTED TO	RA4	.03	1	FLOW	11.
				TIME	3.47
2 COMBINED AT	A1-3	.28	1	FLOW	52.
				TIME	3.47
ROUTED TO	RA4	.28	1	FLOW	52.
				TIME	3.53
HYDROGRAPH AT	A4	.11	1	FLOW	15.
				TIME	3.47
2 COMBINED AT	A1-4	.39	1	FLOW	66.
				TIME	3.50
ROUTED TO	RA5	.39	1	FLOW	66.
				TIME	3.53
HYDROGRAPH AT	A5	.05	1	FLOW	8.
				TIME	3.33
2 COMBINED AT	A1-5	.44	1	FLOW	73.
				TIME	3.53
ROUTED TO	RA7	.44	1	FLOW	73.
				TIME	3.57
HYDROGRAPH AT	A6	.02	1	FLOW	5.
				TIME	3.33
HYDROGRAPH AT	A7	.03	1	FLOW	7.
				TIME	3.43
2 COMBINED AT	A6-7	.05	1	FLOW	12.
				TIME	3.37

2 COMBINED AT	A1-7	.49	1	FLOW	83.
				TIME	3.53
:OUTED TO	RA7	.49	1	FLOW	83.
				TIME	3.57
IYDROGRAPH AT	A8	.03	1	FLOW	9.
				TIME	3.30
'OUTED TO	RA11A	.03	1	FLOW	9.
				TIME	3.33
2 COMBINED AT	A1-8	.52	1	FLOW	89.
				TIME	3.53
HYDROGRAPH AT	A9	.04	1	FLOW	4.
				TIME	3.73
2 COMBINED AT	A1-9	.56	1	FLOW	93.
				TIME	3.53
ROUTED TO	RA11A	.56	1	FLOW	93.
				TIME	3.57
.YDROGRAPH AT	A10	.02	1	FLOW	6.
				TIME	3.33
YDROGRAPH AT	A11	.02	1	FLOW	6.
				TIME	3.37
2 COMBINED AT	A10-11	.05	1	FLOW	11.
				TIME	3.37
2 COMBINED AT	A1-11	.60	1	FLOW	101.
				TIME	3.53
'OUTED TO	RA13	.60	1	FLOW	101.
				TIME	3.60
HYDROGRAPH AT	A12	.02	1	FLOW	5.
				TIME	3.37
HYDROGRAPH AT	A13	.02	1	FLOW	4.
				TIME	3.37
2 COMBINED AT	A12-13	.04	1	FLOW	9.
				TIME	3.37
2 COMBINED AT	A1-13	.64	1	FLOW	108.

TIME 3.57

*** NORMAL END OF HEC-1 ***

Adjustments to Downstream Flows with Vintage Oaks Developed

From 8/28/78 Caltrans/Menlo Park Calculation Sheets

		Reported Flow (cfs)	Reported Rim (MSL)	Time of Concentration (min)	Rainfall Intensity Factor	BKF Runoff Adjustment (cfs)	BKF Revised Flow (cfs)
1	Laurel & Holland	104.0	116.4	35.5	0.846	18.0	122.0
2		102.6	116.6	36.6	0.831	17.7	120.3
3	E. Bayshore & Bay	101.5	117.4	37.3	0.822	17.5	119.0
4	E. Bayshore & Saratoga	102.8	115.7	38.4	0.808	17.2	120.0
5	Saratoga & Newbridge	113.2	112.5	40.3	0.785	16.7	129.9
6	Willow & Newbridge	171.0	113.8	41.1	0.776	16.5	187.5
7	Willow & Alberni	174.4	111.1	42.0	0.766	16.3	190.7
8	Willow & O'Brien	172.6	109.2	42.8	0.758	16.1	188.7
9	Willow & Ivy	194.9	108.5	43.4	0.752	16.0	210.9
10	Willow -Ivy/Hamilton	200.6	106.4	44.7	0.739	15.7	216.3
11	Willow & Hamilton	255.5	104.5	49.5	0.726	15.4	270.9
12	Pump Station	275.5	108.5	50.2	0.717	15.3	290.8

Storm Drain Hydraulics

TABLE 5

\AVEN STORM DRAIN SYSTEM
ET STORM DRAIN DESIGN

LINE OR STREET	STRUCT I.D.	INPUT TO STRUCT (CFS)	DESIGN FLOW (CFS)	GROUND ELEV. (FT.)	SURVEYED GROUND ELEV. (FT.)	ENTRANCE INV. ELEV. (FT.)	EXIT INV. ELEV. (FT.)	PIPE LENGTH L (FT.)	PIPE DIAM. D (IN.)	PIPE SLOPE S (FT./FT.)	DEPTH OF FLOW IN PIPE (FT)	VEL. IN PIPE (FPS)	EGL (FT)	HGL (FT)	HGL - Crown	FREE-BOARD (FT)	AREA OF FLOW (S.F.)	FALL IN PIPE (FT)	FRICT. LOSS (FT.)	VELOCITY MANHOLE LOSSES (FEET)	MOMENTUM MANHOLE LOSSES (FEET)	TOTAL ENERGY LOSS (FEET)	FRICTION SLOPE (FT/FT)
	3				120.55	110.05	110.05																
3		2.3	117.3					290	60	0.0025		6.0					19.6	0.7	0.6				
	2				119.50	109.33	109.33				8.8		118.7	118.2	4.3	1.3				0.0	0.0	1.5	0.0037
2		2.3	119.7					410	54	0.0097		7.5					15.9	4.0	1.5				
	1				117.47	105.37	105.37				10.9		117.2	116.3	6.4	1.2				0.0	0.0	0.7	0.0038
1		0.0	119.7	Existing Storm Drain				184	54	0.0020		7.5					15.9	0.4	0.7				
	CS1			116	115.68	105.00	105.00				10.6		116.5	115.6	6.1	0.1				0.0	0.0	1.4	0.0037
C1		0.0	119.7					380	54	0.0029		7.5					15.9	1.1	1.4				
	CS2			117		103.90	103.90				10.3		115.1	114.2	5.8	2.4				0.0	0.0	1.0	0.0037
C2		0.0	119.7					260	54	0.0023		7.5					15.9	0.6	1.0				
	CS3			117		103.30	103.30				9.9		114.1	113.2	5.4	4.2				0.0	0.0	1.5	0.0037
C3		0.0	119.7					400	54	0.0022		7.5					15.9	0.9	1.5				
	CS4			116		102.40	102.40				9.3		112.6	111.7	4.8	4.0				0.0	0.0	3.1	0.0044
C4		10.2	129.9					700	54	0.0020		8.2					15.9	1.4	3.1				
	CS5			113		101.00	100.10				7.5		109.6	108.5	2.9	4.0				0.1	0.0	1.0	0.0034
C5		57.8	187.7					300	66	0.0033		7.9					23.8	1.0	0.9				
	CS6			114		99.10	99.10				8.5		108.5	107.6	3.0	6.2				0.0	0.0	1.6	0.0033
C6		3.4	191.1					500	66	0.0032		8.0					23.8	1.6	1.6				
	CS7			111		97.50	97.50				8.4		106.9	105.9	2.9	5.2				0.0	0.0	1.3	0.0033
C7		0.0	191.1					400	66	0.0035		8.0					23.8	1.4	1.3				
	CS8			109		96.10	92.50				8.5		105.6	104.6	6.6	4.6				0.0	0.0	1.4	0.0040
C8		20.5	211.6					340	66	0.0032		8.9					23.8	1.1	1.3				
	CS9			109		91.40	88.14				11.6		104.3	103.0	9.4	5.5				0.0	0.0	2.9	0.0042
C9		5.7	217.3					700	66	0.0021		9.1					23.8	1.4	2.9				
	CS10			106		86.70	86.70				13.3		101.3	100.0	7.8	6.4				0.0	0.0	4.6	0.0066
C10		54.9	272.2					700	66	0.0034		11.5					23.8	2.4	4.6				
	CS11			105		84.30	84.30				10.0		96.7	94.3	4.5	10.2				0.0	0.0	3.8	0.0076
C11		20.0	292.2					500	66	0.0010		12.3					23.8	0.5	3.8				
	CS12			105		83.80	83.30				6.7		92.9	90.5	0.7	14.0				0.0	0.0	5.4	0.0031
C12		0.0	292.2					1720	78	0.0006		8.8					33.2	1.0	5.3				
	CS13			105		82.30	82.30				4.0		87.5	86.3	-2.5	18.2				0.0	0.0	0.3	0.0032
C13		0.0	292.2					100	78	0.0230		8.8					33.2	2.3	0.3				
	CS14					80.00	79.80						87.2	86.0						0.0			

MANNING'S n : 0.013
Junction Loss Factors:
>48" 0.01
<42" 0.20

Exhibit H

Supplemental Geotechnical Investigation Proposed
Proposed Gateway Family Housing 1345 Willow Road

ROCKRIDGE GEOTECHNICAL

Prepared for **MidPen Housing Corporation**

SUPPLEMENTAL GEOTECHNICAL INVESTIGATION
PROPOSED GATEWAY FAMILY HOUSING
1345 WILLOW ROAD
MENLO PARK, CALIFORNIA

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July 19, 2018
Project No. 18-1509

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Oakland, CA 94610

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ROCKRIDGE GEOTECHNICAL

July 19, 2018
Project No. 18-1509

Ms. Nesreen Kawar
MidPen Housing Corporation
303 Vintage Park Drive, Suite 250
Foster City, California 94404

Subject: Final Report
Supplemental Geotechnical Investigation
Proposed Gateway Family Housing
1300 Block of Willow Road
Menlo Park, California

Dear Ms. Kawar,

We are pleased to present our final geotechnical report, dated July 19, 2018, for the proposed Gateway Family Housing project to be constructed at 1345 Willow Road in Menlo Park, California. Our services are being provided in accordance with our General Consultant Services Agreement with MidPen Housing Corporation, dated May 15, 2018.

The site is rectangular shaped with current plan dimensions of approximately 122 by 893 feet. The ground surface at the site slopes down very gently to the north with ground surface elevations (NAVD88 datum) ranging from about 10-1/2 feet at the southern end of the site to 6-1/2 feet at the northern end. The site is bordered by a grocery store to the south, a service station to the north, and a 20-foot-wide public utility easement and the rear yards of single-family homes to the west. It is currently occupied by two-story, at-grade apartment buildings and a one-story community building. An asphalt-paved frontage road with parking stalls runs along the eastern edge of the site. There are also two small asphalt-paved parking lots along the western edge of the site; one is near the center of the site and the other is at the northern end. We understand the existing buildings have experienced differential movements that have caused distress, including wall cracking and sticking doors and windows.

Plans are to demolish the existing buildings and remove existing utilities occupying the site and to construct a new multi-family residential development. The property lines for the site will be adjusted by shifting to the south and east; the expanded site will encompass the current frontage road/parking area and the new site plan dimensions will be approximately 174 by 954 feet (3.82 acres). The public utilities in the current frontage road will be abandoned and replaced in a new 12-foot-wide public utility easement that

will run along the eastern property line. The new development will include one 3-story and two 4-story at-grade apartment buildings surrounded by landscaped areas and walkways. The apartment buildings will be wood-framed structures that will be built by combining prefabricated modules measuring 11 to 13.25 feet in width and 58 to 70 feet in length. Each building will have a structurally supported wood floor and a crawl space that will include a utility corridor running along the center of the building in the long (north-south) direction. Other proposed site improvements include an at-grade asphalt-paved parking lot/driveway running along the western and northern edges of the property, as well as a landscaped courtyard and one-story community room in the northwestern portion of the site.

From a geotechnical standpoint, we conclude the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concern for this site is the presence of highly expansive near-surface soil that is susceptible to large volume changes with changes in moisture content. These volume changes can cause cracking of foundations and slabs. Therefore, foundations and slabs should be designed and constructed to mitigate the effects of the expansive clay. These effects can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill below exterior slabs, and either supporting foundations below the zone of severe moisture change or providing a stiff, shallow foundation that can limit deformation of the superstructure as the underlying soil shrinks and swells. Based on our discussions with the project team and the proposed modular construction, we conclude the most appropriate foundation type for the proposed buildings would consist of deepened continuous footings running edges of the modules.

The recommendations contained in our report are based on a limited subsurface exploration. Consequently, variations between expected and actual subsurface conditions may be found in localized areas during construction. Therefore, we should be engaged to observe grading, shoring and foundation installation, during which time we may make changes in our recommendations, if deemed necessary.

We appreciate the opportunity to provide our services to you on this project. If you have any questions, please call.

Sincerely yours,
ROCKRIDGE GEOTECHNICAL, INC.

Craig S. Shields, P.E., G.E.
Principal Geotechnical Engineer

Enclosure

ROCKRIDGE GEOTECHNICAL

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Figure 2 Site Plan

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APPENDIX A

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Figure A-5 Soil Classification Chart

APPENDIX B

Figure B-1 Plasticity Chart

Figure B-2 Particle Size Distribution

Corrosivity Analysis

APPENDIX C

Logs of Test Borings, CPT Data, and Laboratory Test Results from AMSO Report

ROCKRIDGE GEOTECHNICAL

SUPPLEMENTAL GEOTECHNICAL INVESTIGATION
PROPOSED GATEWAY FAMILY HOUSING
1345 WILLOW ROAD
Menlo Park, California

1.0 INTRODUCTION

This report presents the results of the supplemental geotechnical investigation performed by Rockridge Geotechnical, Inc. for the proposed Gateway Family Housing project to be constructed at 1345 Willow Road in Menlo Park, California. The site is on the western side of Willow Road between Ivy Drive and Hamilton Avenue, as shown on the Site Location Map, Figure 1.

The site is rectangular shaped with current plan dimensions of approximately 122 by 893 feet. The ground surface at the site slopes down very gently to the north with ground surface elevations (NAVD88 datum) ranging from about 10-1/2 feet at the southern end of the site to 6-1/2 feet at the northern end. The site is bordered by a grocery store to the south, a service station to the north, and a 20-foot-wide public utility easement and the rear yards of single-family homes to the west. It is currently occupied by two-story, at-grade apartment buildings and a one-story community building. An asphalt-paved frontage road with parking stalls runs along the eastern edge of the site. There are also two small asphalt-paved parking lots along the western edge of the site; one is near the center of the site and the other is at the northern end. We understand the existing buildings have experienced differential movements that have caused distress, including wall cracking and sticking doors and windows.

Plans are to demolish the existing buildings and remove existing utilities occupying the site and to construct a new multi-family residential development. The property lines for the site will be adjusted by shifting to the south and east; the expanded site will encompass the current frontage road/parking area and the new site plan dimensions will be approximately 174 by 954 feet (3.82 acres). The public utilities in the current frontage road will be abandoned and replaced in a new 12-foot-wide public utility easement that will run along the eastern property line. The new development will include one 3-story and two 4-story at-grade apartment buildings surrounded by landscaped areas and walkways. The apartment buildings will be wood-framed structures that

will be built by combining prefabricated modules measuring 11 to 13.25 feet in width and 58 to 70 feet in length. Each building will have a structurally supported wood floor and a crawl space that will include a utility corridor running along the center of the building in the long (north-south) direction. Other proposed site improvements include an at-grade asphalt-paved parking lot/driveway running along the western and northern edges of the property, as well as a landscaped courtyard and one-story community room in the northwestern portion of the site.

AMSO Consulting Engineers (AMSO) previously performed a geotechnical investigation for this project, the results of which were presented in a report dated June 20, 2013. AMSO investigated subsurface conditions at the site by drilling two borings on May 31, 2013 and performing three cone penetration tests (CPTs) on May 30, 2013. The borings and CPTs were advanced to depths ranging from 20 to 50 feet below the ground surface (bgs). Laboratory testing was performed on selected soil samples to measure moisture content, dry density, Atterberg limits, and unconfined compression strength. The results of corrosivity testing on two near-surface samples were presented in a separate letter prepared by AMSO, dated October 7, 2014. We relied on the subsurface data in the AMSO geotechnical report and corrosivity letter in developing the conclusions and recommendations presented herein. The boring logs and laboratory test data from the AMSO report are presented in Appendix C at the end of this report.

2.0 SCOPE OF WORK

Our services are being provided in accordance with our General Consultant Services Agreement with MidPen Housing Corporation, dated May 15, 2018. Our scope of work consisted reviewing the existing subsurface data, drilling four borings and performing laboratory testing to supplement the existing subsurface data, and performing engineering analyses to develop conclusions and recommendations regarding:

- site seismicity and seismic hazards, including the potential for liquefaction and lateral spreading, and total and differential settlement resulting from liquefaction and/or cyclic densification
- soil and groundwater conditions at the site
- the most appropriate foundation type(s) for the proposed buildings

- design criteria for the recommended foundation type(s), including vertical and lateral capacities
- estimates of foundation settlement under static and seismic conditions
- lateral earth pressures for design of retaining walls, including foundation stem walls
- site grading and excavation, including criteria for the fill quality and compaction acceptability of the on-site stockpiled material for use as fill
- subgrade preparation for exterior concrete slabs-on-grade
- 2016 California Building Code (CBC) site class and design spectral response acceleration parameters
- corrosivity of the near-surface soil and the potential effects on buried concrete and metal structures and foundations
- flexible and rigid pavement design
- construction considerations.

3.0 FIELD INVESTIGATION AND LABORATORY TESTING

To supplement the subsurface data from the previous investigation by AMSO, we drilled four test borings and performed laboratory testing on selected soil samples. Prior to mobilizing to the site, we contacted Underground Service Alert (USA) to notify them of our work, as required by law, and retained a private utility locator, California Utility Locators of Scotts Valley, California, to check that the boring locations were clear of existing utilities. We also submitted a Drilling Notification Form for Annual Geotechnical Drilling Permit to San Mateo County Environmental Health Services Division (SMCEHSD) prior to drilling. Details of the field investigation and laboratory testing are described below.

3.1 Test Borings

Subsurface conditions at the site were explored by drilling four test borings, designated as B-1 through B-4, at the approximate locations shown on Figure 2. The borings were drilled on June 12, 2018 by Benevent Building of Concord, California using a portable drill rig equipped with four-inch-diameter, solid-stem flight augers. The borings were each drilled to a depth of approximately 21-1/2 feet below the existing ground surface (bgs). During drilling, our field geologist logged the soil encountered and obtained representative samples for visual

classification. Logs of the borings are presented on Figures A-1 through A-4 in Appendix A. The soil encountered in the borings was classified in accordance with the classification chart shown on Figure A-5.

Soil samples were obtained using the following samplers:

- Sprague and Henwood (S&H) split-barrel sampler with a 3.0-inch outside diameter and 2.5-inch inside diameter, lined with 2.43-inch inside diameter brass or stainless steel tubes.
- Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside and 1.5-inch inside diameter, without liners.

The samplers were driven with a 140-pound, above-ground, rope-and-cathead safety hammer falling about 30 inches per drop. The samplers were driven 18 inches into the ground and the hammer blows required to drive the samplers were recorded every six inches and are presented on the boring log. A "blow count" is defined as the number of hammer blows per six inches of penetration or 50 blows for six inches or less of penetration. The blow counts required to drive the S&H and SPT samplers were converted to approximate SPT N-values using factors of 0.7 and 1.2, respectively, to account for sampler type and approximate hammer energy. The blow counts used for this conversion were the last two blow counts. The converted SPT N-values are presented on the boring logs.

Upon completion of drilling, the boreholes were backfilled with cement grout as required by SMCEHSD. The soil cuttings generated by the borings were placed in landscaped areas on the site.

3.2 Laboratory Testing

We re-examined each soil sample in the office to confirm the field classification and select representative samples for laboratory testing. Selected soil samples were tested to measure moisture content, dry density, Atterberg limits[1] (plasticity index), and gradation. The laboratory test results are presented on the boring logs and on Figures B-1 and B-2 in Appendix B.

4.0 SUBSURFACE CONDITIONS

Regional geologic information (Figure 3) indicates the site is underlain by Holocene-age basin deposits, which typically consist of fine-grained soils deposited at the distal edge of alluvial fans. Our borings, which were drilled in the paved area along the eastern edge of the site, encountered asphalt concrete pavement up to 11 inches thick underlain by cemented gravel extending to a depth of about two feet bgs.

The results of the previous borings and CPTs by AMSO and our current borings indicate the fill, where encountered, or the ground surface where no fill is present is underlain by medium stiff to very stiff clay with varying sand content interbedded with occasional layers of loose to very dense sand and clayey sand that extends to the maximum depth explored of 50 feet bgs. The granular layers, where encountered, are generally less than a few feet thick except for a layer of medium dense silty and clayey sand encountered between depths of approximately 6 and 14 feet at the CPT-4 location. The results of Atterberg limits tests performed on samples of the near-surface clay indicate the clay has highly to very highly expansive[2] with plasticity indices (PIs) ranging from 34 to 52.

Groundwater was previously measured in May 2013 in the two AMSO borings at depths of about 10 to 11 feet bgs and in the AMSO CPTs at depths ranging from 9.7 to 10.5 feet bgs. We measured groundwater in our borings immediately after completion of drilling at depths ranging from approximately 9.3 to 11.1 feet bgs. The Seismic Hazard Zone report for the Palo Alto

---

1 Atterberg limits are an indirect measure of the expansion potential of the soil.

2 Highly expansive soil undergoes large volume changes with changes in moisture content.

Quadrangle (2006) prepared by the California Geological Survey (CGS) indicates the historic high groundwater level at the site is about 10 feet bgs.

5.0 SEISMIC CONSIDERATIONS

5.1 Regional Seismicity

The site is located in the Coast Ranges geomorphic province of California that is characterized by northwest-trending valleys and ridges. These topographic features are controlled by folds and faults that resulted from the collision of the Farallon plate and North American plate and subsequent strike-slip faulting along the San Andreas Fault system. The San Andreas Fault is more than 600 miles long from Point Arena in the north to the Gulf of California in the south. The Coast Ranges province is bounded on the east by the Great Valley and on the west by the Pacific Ocean.

The major active faults in the area are the San Andreas and Hayward faults. These and other faults in the region are shown on Figure 4. For these and other active faults within a 50-kilometer radius of the site, the distance from the site and estimated mean characteristic Moment magnitude[3] [2007 Working Group on California Earthquake Probabilities (WGCEP) (USGS 2008) and Cao et al. (2003)] are summarized in Table 1.

[3] Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

TABLE 1
Regional Faults and Seismicity

Fault Segment	Approximate Distance from Site (km)	Direction from Site	Mean Characteristic Moment Magnitude
Monte Vista-Shannon	9	Southwest	6.5
N. San Andreas - Peninsula	11	Southwest	7.2
N. San Andreas (1906 event)	11	Southwest	8.0
Total Hayward	19	Northeast	7.0
Total Hayward – Rodgers Creek	19	Northeast	7.3
San Gregorio Connected	27	West	7.5
Total Calaveras	28	East	7.0
N. San Andreas – Santa Cruz	36	Southeast	7.1
Mount Diablo Thrust	41	Northeast	6.7
Zayante - Vergeles	46	Southeast	7.0
Greenville Connected	49	Northeast	7.0
Green Valley Connected	50	Northeast	6.8

Since 1800, four major earthquakes have been recorded on the San Andreas Fault. In 1836, an earthquake with an estimated maximum intensity of VII on the Modified Mercalli (MM) scale occurred east of Monterey Bay on the San Andreas Fault (Toppozada and Borchardt 1998). The estimated Moment magnitude, M_w, for this earthquake is about 6.25. In 1838, an earthquake occurred with an estimated intensity of about VIII-IX (MM), corresponding to an M_w of about 7.5. The San Francisco Earthquake of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas Fault from Shelter Cove to San Juan Bautista approximately 470 kilometers in length. It had a maximum intensity of XI (MM), an M_w of about 7.9, and was felt 560 kilometers away in Oregon, Nevada, and Los Angeles. The most recent earthquake to affect

the Bay Area was the Loma Prieta Earthquake of 17 October 1989 with an M_w of 6.9. This earthquake occurred in the Santa Cruz Mountains about 154 kilometers southwest of the site.

In 1868, an earthquake with an estimated maximum intensity of X on the MM scale occurred on the southern segment (between San Leandro and Fremont) of the Hayward Fault. The estimated M_w for the earthquake is 7.0. In 1861, an earthquake of unknown magnitude (probably an M_w of about 6.5) was reported on the Calaveras Fault. The most recent significant earthquake on this fault was the 1984 Morgan Hill earthquake (M_w = 6.2).

The U.S. Geological Survey's 2014 Working Group on California Earthquake Probabilities has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring in the San Francisco Region during the next 30 years (starting from 2014) is 72 percent. The highest probabilities of occurrence are assigned to the Hayward Fault, Calaveras Fault, and the northern segment of the San Andreas Fault. These probabilities are 14.3, 7.4, and 6.4 percent, respectively.

5.2 Geologic Hazards

Because the project site is in a seismically active region, we evaluated the potential for earthquake-induced geologic hazards including ground shaking, ground surface rupture, liquefaction,[4] lateral spreading,[5] and cyclic densification[6]. We used the results of our field investigation to evaluate the potential of these phenomena occurring at the project site.

[4] Liquefaction is a phenomenon where loose, saturated, cohesionless soil experiences temporary reduction in strength during cyclic loading such as that produced by earthquakes.

[5] Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

[6] Cyclic densification is a phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing ground-surface settlement.

5.2.1 Ground Shaking

The seismicity of the site is governed by the activity of the San Andreas and Hayward faults, although ground shaking from future earthquakes on other faults will also be felt at the site. The intensity of earthquake ground motion at the site will depend upon the characteristics of the generating fault, distance to the earthquake epicenter, and magnitude and duration of the earthquake. We judge that strong to very strong ground shaking could occur at the site during a large earthquake on one of the nearby faults.

5.2.2 Ground Surface Rupture

Historically, ground surface displacements closely follow the trace of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. We therefore conclude the risk of fault offset at the site from a known active fault is very low. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting and consequent secondary ground failure from previously unknown faults is also very low.

5.2.3 Liquefaction and Associated Hazards

When a saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures and sand boils are evidence of excess pore pressure generation and liquefaction.

The site is located within a zone of liquefaction potential as shown on the map titled *State of California Seismic Hazard Zones, Palo Alto Quadrangle, Official Map*, prepared by the California Geological Survey (CGS), dated October 18, 2006 (see Figure 5). CGS has provided recommendations for procedures and report content for site investigations performed within seismic hazard zones in Special Publication 117 (SP-117), titled *Guidelines for Evaluating and*

Mitigating Seismic Hazard Zones in California, dated September 11, 2008. SP-117 recommends subsurface investigations in mapped liquefaction hazard zones be performed using rotary-wash borings and/or CPTs.

Liquefaction susceptibility was assessed using the software CLiq v2.0 (GeoLogismiki, 2016). CLiq uses measured field CPT data and assesses liquefaction potential, including post-earthquake vertical settlement, given a user-defined earthquake magnitude and peak ground acceleration (PGA). We performed a liquefaction triggering analysis using the CPT and boring log data within the site vicinity in accordance with the methodology developed by Boulanger and Idriss (2014). Seismically induced settlements resulting from post-liquefaction reconsolidation were computed using the methodology developed by Zhang et al. (2002).

Our analysis was performed using a high groundwater depth of 10 feet bgs. In accordance with the 2016 CBC, we used a peak ground acceleration of 0.55 times gravity (g) in our liquefaction evaluation; this peak ground acceleration is consistent with the Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects (PGA_M). We also used a Moment magnitude 8.05 earthquake, which is consistent with the mean characteristic Moment magnitude for the San Andreas Fault 1906 event, as presented in Table 1.

Our liquefaction analyses indicate there are thin layers of potentially liquefiable soil between depths of approximately 10 and 34 feet bgs. The localized potentially liquefiable layers underlying the site are generally less than one foot thick, with the exception of an approximately 2.5-foot-thick layer encountered between depths of 11 and 13-1/2 feet at the CPT-4 location . We estimate total and differential free-field ground settlement resulting from post-liquefaction reconsolidation of the liquefiable soil layers following an MCE event with PGA_M of 0.55g on the San Andreas Fault will be less than 3/4 inch and 1/2 inch across a horizontal distance of 30 feet, respectively.

Our analysis and laboratory test results indicate the potentially liquefiable layers are sufficiently thin and/or dense such that the potential for surface manifestations from liquefaction, such as formation of sand boils and loss of bearing capacity for shallow foundations, is low.

Lateral spreading occurs when a continuous layer of soil liquefies at depth and the soil layers above move toward an unsupported face, such as a shoreline slope, or in the direction of a regional slope or gradient. Because the potentially liquefiable soil layers are not continuous, we conclude the potential for lateral spreading to occur at the project site is very low.

5.2.4 Cyclic Densification

Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. The results of our investigation indicate the soil encountered above the groundwater table has sufficient cohesion and/or density, such that the potential for cyclic densification to occur at the site is very low.

6.0 DISCUSSION AND CONCLUSIONS

From a geotechnical standpoint, we conclude the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concerns for the project are: 1) the presence of highly to very highly expansive near-surface soil, and 2) providing adequate foundation support for the new structures. Our conclusions for this and other geotechnical aspects of the project are presented in this section.

6.1 Foundation Support and Settlement

The highly to very highly expansive near-surface clay is subject to large volume changes during seasonal fluctuations in moisture content. These volume changes can cause cracking of foundations and slabs. Therefore, foundations and slabs should be designed and constructed to mitigate the effects of the expansive clay. These effects can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill below exterior slabs, and either supporting foundations below the zone of severe moisture change or providing a stiff, shallow foundation that can limit deformation of the superstructure as the underlying soil shrinks and swells.

Foundation alternatives for sites underlain by highly expansive clay include deepened spread footings, stiffened shallow foundations such as conventionally reinforced concrete mats or post-tensioned (P-T) slabs-on-grade, and drilled, cast-in-place concrete piers. Considering the proposed buildings will have a crawl space and will have continuous wall loads in both the longitudinal and lateral directions, we conclude the most appropriate foundation type for these structures would consist of deepened continuous footings bottomed below the zone of severe moisture change. We can provide recommendations for other foundation types upon request.

We estimate total settlement of the proposed buildings supported on continuous footings will be less than 1-1/4 inches and differential settlement will be less than about 3/4 inch over a horizontal distance of 30 feet. Most of this settlement is expected to occur during construction of the buildings. As discussed above in Section 5.2.3, post-liquefaction reconsolidation after a major earthquake may result in an additional 1/2 inch of differential settlement over a horizontal distance of 30 feet.

6.2 Expansive Soil

On expansive soil sites it is also critical to properly manage surface and subsurface drainage to prevent water from collecting beneath pavements and slabs or behind below-grade walls, where it can lead to cyclic swelling and shrinking of the subgrade soil and can cause subgrade instability under vehicular loads. While the objective of permeable pavement systems and infiltration basins is to allow for water storage and infiltration, we conclude that infiltration into the subgrade soil is not feasible at this site due to the low permeability of the highly expansive clay. Furthermore, from a geotechnical standpoint, water should not be allowed to collect alongside or beneath the building foundation, pavements and flatwork. This can be achieved by providing an impermeable liner and a subdrain beneath permeable surfaces and infiltration basins and installing vertical barriers between permeable surfaces underlain by subdrains and non-permeable surfaces underlain by conventional aggregate base. In addition, to prevent the subgrade soil from becoming saturated, we conclude that permeable aggregate base courses should be underlain by an impermeable liner in zones subject to regular vehicular traffic.

6.3 Concrete Flatwork

Differential ground movement caused by the shrinking and swelling of the highly expansive near-surface soil should be expected. This differential ground movement can damage exterior concrete slabs and pavements. To reduce the magnitude of differential ground movements, the highly expansive soil within 12 inches of the slab subgrade and a lateral extent of six inches beyond the limits of the slab edges should be removed and replaced with non-expansive, select fill, such as Class 2 aggregate base (AB) and/or quarry fines. Alternatively, the upper 12 inches of the exterior slab subgrade may be treated with dolomitic Quicklime. If the lime-treatment option is selected, the exterior slabs should be underlain by four inches of Class 2 AB or quarry fines in addition to the lime-treated soil. Providing 12 to 16 inches of non-expansive soil below exterior slabs will reduce seasonal shrink/swell movements in the near-surface highly expansive clay by reducing the magnitude of the seasonal moisture changes in the highly expansive soil below the non-expansive/lime-treated layer. Based on our experience, lime treatment is generally not cost-effective for small areas, can prevent plant growth in adjacent landscaped areas, and may be costly to dispose of off site because of its high pH.

6.4 Construction Considerations

The soil to be excavated consists of clay with a high moisture content which can be excavated with conventional earth-moving equipment such as loaders and backhoes. Localized sand layers may be encountered where excavations are deeper than about six feet. Because of the high moisture content of the near-surface clay, it is highly susceptible to strength loss under repeated loads by construction equipment traffic. This strength loss will decrease its ability to resist deformation; this phenomenon could result in severe rutting and pumping of the exposed subgrade. To reduce the potential for this behavior, heavy rubber-tired equipment, as well as vibratory rollers, should be avoided. Further, to provide a winterized working surface and to reduce rutting due to construction equipment traffic, we believe it would be prudent to treat the upper 12 inches of soil across the site with lime. Based on data from our borings, it appears there is a relatively thick layer of granular soil underlying the AC pavement on the existing frontage road along the eastern side of the site. Where there is at least 12 inches of the existing

granular material remaining after pavement removal and rough grading, lime treatment will not be necessary. Where it is necessary to remove the granular material to reach subgrade elevation, the material should be stockpiled for reuse as select fill.

The current moisture content of the highly expansive clay underlying the site is generally at least 10 percent above optimum moisture content and cannot be reused as fill or backfill without drying through aeration or lime treatment. Drying of highly expansive clay through aeration to reuse as trench backfill requires significant effort and will not be practical unless there is sufficient space and warm weather. Therefore, for cost estimating purposes, we recommend it be assumed that imported or lime-treated on-site soil will be needed to backfill trenches.

Excavations that will be deeper than five feet and will be entered by workers should be sloped or shored in accordance with CAL-OSHA standards (29 CFR Part 1926). The contractor should be responsible for the construction and safety of temporary slopes. We judge temporary slopes with a maximum inclination of 1:1 (horizontal to vertical) should be stable, provided the slope is not surcharged by adjacent structures, construction equipment, or stockpiled soil.

6.5 Soil Corrosivity

Laboratory testing was performed by Project X Corrosion Engineering to evaluate the corrosivity of the native clay from Boring B-2 at a depth of 2 to 2.5 feet bgs. The results of the corrosivity test are presented in Appendix B of this report. Based on the results of the resistivity test results, the near-surface clay is classified as “highly corrosive” to buried metal. Accordingly, all buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric-coated steel or iron should be protected against corrosion depending upon the critical nature of the structure. The chloride, sulfide, and sulfate ion concentrations and pH of the soil do not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures. If buried metal, including fittings, will be used at the site, we recommend a corrosion consultant be retained to provide site-specific recommendations to address the highly corrosive soil.

7.0 RECOMMENDATIONS

Our recommendations for site preparation and grading, foundation and seismic design, and other geotechnical aspects of the project are presented in this section.

7.1 Site Preparation, Grading, and Fill Placement

Site demolition should include removal of all existing pavements, foundations, and underground utilities. In general, abandoned underground utilities should be removed to the property line or service connections and properly capped or plugged with concrete. Where existing utility lines are outside of the footprint of the proposed improvements and will not interfere with the proposed construction, they may be abandoned in-place provided the lines are filled with lean concrete or cement grout to the property line. Voids resulting from demolition activities and removal of existing utilities should be properly backfilled with engineered fill following the recommendations provided later in this section.

Soil subgrade consisting of on-site highly expansive soil beneath proposed improvements or areas for new fill should be scarified to a depth of at least 12 inches, moisture-conditioned to at least five percent above optimum moisture content, and compacted to between 87 and 92 percent relative compaction[7]. If the soil subgrade consists of low-plasticity on-site fill, it should be moisture-conditioned to above optimum moisture content and compacted to at least 90 percent relative compaction. On-site soil may be used as general fill, provided the material is free of organic matter, contain no rocks or lumps larger than three inches in greatest dimension, and be approved by the Geotechnical Engineer. If material to be used as fill is imported to the site, it should meet the requirements for select fill provided below in Section 7.1.1. A summary of the compaction requirements for the various types of fill that may be used at the site is presented in Table 2.

[7] Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557 laboratory compaction procedure.

TABLE 2
Summary of Compaction Requirements

Location	Required Relative Compaction (percent)	Moisture Requirement
Building pad subgrade – native clay	87 – 92	5+% above optimum
General fill – lime-treated clay	90+	Above optimum
General fill – expansive clay	87 – 92	5+% above optimum
General fill – low-plasticity soil	90+	Above optimum
Utility trench backfill – expansive clay	87 – 92	5+% above optimum
Utility trench backfill – low-plasticity	90+	Above optimum
Utility trench - clean sand or gravel	95+	Near optimum
Pavement subgrade – expansive clay	90+	Above optimum
Pavement subgrade – low-plasticity	95+	Above optimum
Pavement - aggregate base	95+	Near optimum
Exterior slabs – expansive clay	87 – 92	5+% above optimum
Exterior slabs – low-plasticity	90+	Above optimum
Exterior slabs – select fill	90+	Above optimum

If grading work is performed during the rainy season, it is likely the subgrade material will be too wet to compact to the recommended relative compaction and will have to be scarified and aerated to lower its moisture content so the specified compaction can be achieved. Material to be dried by aeration should be scarified to a depth of at least 12 inches; the scarified soil should be turned at least twice a day to promote uniform drying. Once the moisture content of the aerated soil has been reduced to acceptable levels, the soil should be compacted in accordance with our recommendations. Aeration typically is the least costly method used to stabilize the subgrade soil; however, it generally requires the most time to complete. Other soil stabilization alternatives include overexcavating the wet soil and replacing it or mixing it with drier material, and lime treatment of the wet soil.

It is also important that the moisture content of subgrade soil is sufficiently high to reduce the expansion potential. If the grading work is performed during the dry season, moisture-conditioning to increase the moisture content of the soil may be required.

7.1.1 Select Fill

Select fill should consist of imported soil that is free of organic matter, contain no rocks or lumps larger than three inches in greatest dimension, have a liquid limit less than 40 and plasticity index less than 12, and be approved by the Geotechnical Engineer. Select fill should be placed in lifts not exceeding eight inches in loose thickness, moisture-conditioned to above optimum moisture content, and compacted to at least 90 percent relative compaction. Samples of proposed select fill material should be submitted to the Geotechnical Engineer at least three business days prior to use at the site.

The grading contractor should provide analytical test results or other suitable environmental documentation indicating the imported fill is free of hazardous materials at least three days before use at the site. If this data is not provided, a minimum of two weeks will be required to perform any necessary analytical testing.

7.1.2 Lime-Treated Soil

Lime treatment of the upper 12 to 18 inches (depending on the moisture content of the exposed soil) of the on-site clay may be warranted to provide a winterized pad. Lime treatment of the upper 12 inches of the on-site clay below exterior concrete slabs may also be performed to reduce the recommended thickness of non-expansive fill below the slabs from 12 to 4 inches. Lime treatment of fine-grained soils generally includes site preparation, application of lime, mixing, compaction, and curing of the lime treated soil. Field quality control measures should include checking the depth of lime treatment, degree of pulverization, lime spread rate measurement, lime content measurement, and moisture content and density measurements, and mixing efficiency. Quality control may also include laboratory tests for unconfined compressive strength tests on representative samples.

The lime treatment process should be designed by a contractor specializing in its use and who is experienced in the application of lime in similar soil conditions. Based on our experience with lime treatment, we judge that the specialty contractor should be able to treat the highly expansive on-site material to produce a non-expansive fill for the proposed building. For planning purposes, we recommend assuming the lime treatment will consist of six percent of Quicklime by dry weight of soil and a dry density of 105 pounds per cubic foot (pcf) for the treated soil. The specialty contractor should confirm this amount is suitable and prepare a treatment specification for our review prior to construction.

7.1.3 Exterior Concrete Flatwork

We recommend exterior concrete flatwork, including sidewalks, be underlain by at least 12 inches of imported or on-site select (non-expansive) fill or 4 inches of select fill and 12 inches of lime-treated on-site soil; the select fill/lime-treated soil should extend at least six inches beyond the slab edges. Select fill and/or lime-treated soil beneath exterior slabs-on-grade should be moisture-conditioned and compacted in accordance with the requirements provided above in Table 2.

Even if underlain by 12 to 16 inches of non-expansive soil, exterior slabs may experience some cracking due to shrinking and swelling of the underlying expansive soil. Thickening the slab edges and adding additional reinforcement will control this cracking to some degree. Where slabs are adjacent to landscaped areas, thickening the concrete edge to extend to the bottom of the select fill underlying the flatwork will help control water infiltration beneath the slabs. In addition, where slabs provide access to buildings, it would be prudent to dowel the entrance to the building to permit rotation of the slab as the exterior ground shrinks and swells and to prevent a vertical offset at the entries.

7.1.4 Utility Trench Backfill

Excavations for utility trenches can be readily made with a backhoe. All trenches should conform to the current CAL-OSHA requirements. To provide uniform support, pipes or conduits should be bedded on a minimum of four inches of sand or fine gravel. After the pipes and

conduits are tested, inspected (if required) and approved, they should be covered to a depth of six inches with sand or fine gravel, which should be mechanically tamped. The pipe bedding and cover should be eliminated where an impermeable plug is required as described below. Backfill for utility trenches and other excavations is also considered fill, and should be placed and compacted as according to the recommendations previously presented. If imported clean sand or gravel (defined as soil with less than 10 percent fines) is used as backfill, it should be compacted to at least 95 percent relative compaction. Jetting of trench backfill should not be permitted. Special care should be taken when backfilling utility trenches in pavement areas. Poor compaction may cause excessive settlements, resulting in damage to the pavement section.

Foundations for the proposed buildings should be bottomed below an imaginary line extending up at a 1.5:1 (horizontal to vertical) inclination from the base of utility trenches. Alternatively, the portion of the utility trench (excluding bedding) that is below the 1.5:1 line can be backfilled with controlled low-strength material (CLSM) with a 28-day unconfined compressive strength of at least 100 pounds per square inch (psi) or Class 2 aggregate base compacted to at least 95 percent relative compaction.

Where utility trenches enter the building pads, an impermeable plug consisting of CLSM, at least three feet in length, should be installed where the trenches enter the building footprint. Furthermore, where sand- or gravel-backfilled trenches cross planter areas and pass below asphalt or concrete pavements, a similar plug should be placed at the edge of the pavement. The purpose of these recommendations is to reduce the potential for water to become trapped in trenches beneath the buildings or pavements. This trapped water can cause heaving of soils beneath slabs and softening of subgrade soil beneath pavements.

7.1.5 Drainage and Landscaping

Positive surface drainage should be provided around the buildings to direct surface water away from the foundations. To reduce the potential for water ponding adjacent to the buildings, we recommend the ground surface within a horizontal distance of five feet from the buildings slope down away from the buildings with a surface gradient of at least two percent in unpaved areas

and one percent in paved areas. In addition, roof downspouts should be discharged into controlled drainage facilities to keep the water away from the foundations. The use of water-intensive landscaping around the perimeter of the buildings should be avoided to reduce the amount of water introduced to the expansive clay subgrade.

Care should be taken to minimize the potential for subsurface water to collect beneath pavements and pedestrian walkways. Where landscape beds and tree wells are immediately adjacent to pavements and flatwork, we recommend vertical cutoff barriers be incorporated into the design to prevent irrigation water from saturating the subgrade and aggregate base. These barriers may consist of either flexible impermeable membranes or deepened concrete curbs.

Prior experience and industry literature indicate that some species of high water-demand[8] trees can induce ground-surface settlement by drawing water from the expansive clay, causing it to shrink. Where these types of trees are planted near buildings, the ground-surface settlement may result in damage to structure. This problem usually occurs 10 or more years after planting, as the trees reach mature height. To reduce the risk of tree-induced, building settlement, we recommend trees of the following genera are not planted within 25 feet of the proposed building: *Eucalyptus, Populus, Quercus, Crataegus, Salix, Sorbus* (simple-leafed), *Ulmus, Cupressus, Chamaecyparis,* and *Cupressocyparis.* Because this is a limited list and does not include all genera that may induce ground-surface settlement, a tree specialist should be consulted prior to selection of trees to be planted at the site.

7.2 Footing Design

The proposed buildings may be supported on deepened spread footings bottomed on stiff native soil and/or properly compacted fill provided the building crawl space surface is sealed with a vapor retarder overlain by a two-inch-thick, unreinforced "rat" slab. Continuous footings should be at least 18 inches wide and isolated spread footings should be at least 24 inches wide. Footings should bottom at least 12 inches below the crawl space subgrade (i.e., the bottom of the

[8] "Water-demand" refers to the ability of the tree to withdraw large amounts of water from the soil subgrade, rather than soil suction exerted by the root system.

rat slab) for interior footings. Exterior footings should bottom at least 36 inches below the adjacent exterior finished grade or 12 inches below the crawl space subgrade, whichever is lower. To minimize the potential for drying of the bottom of footing excavations during the summer months or saturation and softening of the footing excavation bottoms during the rainy season, a rat slab consisting of at least of two inches of controlled low-strength material (CLSM) with a minimum 28-day compressive strength of 100 psi should be placed in the footing bottoms within two days of excavation. For exterior footings, the portion of the footing excavations below a depth of 18 inches below the exterior finished grade may also be filled with CLSM.

We recommend all footings be founded below an imaginary plane extending up at an inclination of 1.5:1 (horizontal to vertical) from the base of any vault, utility trench, and bioswale/storm water treatment areas. If the design footing elevation is above this plane, the footing can either be deepened or over-excavated below the influence line and backfilled with CLSM to the design footing elevation.

Footings may be designed using allowable bearing pressures of 2,500 pounds per square foot (psf) for dead-plus-live loads and 3,330 psf for total design loads, which includes wind or seismic forces. These values include factors of safety of at least 2.0 and 1.5, respectively.

Lateral loads may be resisted by a combination of passive pressure on the vertical faces of the footings and friction between the bottoms of the footings and the underlying soil. To compute lateral resistance for footings, we recommend using a uniform pressure of 1,000 psf for transient load conditions and an equivalent fluid weight of 230 pcf for sustained load conditions. The upper foot of soil should be ignored when computing passive resistance unless confined by a slab or pavement. Frictional resistance should be computed using a base friction coefficient of 0.30.

Footing excavations should bottom in stiff native soil and/or properly compacted fill and should be free of standing water, debris, and weak or disturbed materials prior to placing the rat slab. The bottoms and sides of the footing excavations must be maintained in a moist condition until the rat slab is placed. We should check the excavations prior to placement of the rat slab.

7.2.1 Water Vapor Retarder

To reduce water vapor transmission into the crawl spaces, we recommend a vapor retarder be placed between the bottom of the two-inch-thick rat slab and the underlying subgrade soil. The vapor retarder should be at least 15 mils thick and meet the requirements for Class A vapor retarders stated in ASTM E1745. The vapor retarder should be placed in accordance with the requirements of ASTM E1643. These requirements include overlapping seams by six inches, taping seams, and sealing penetrations in the vapor retarder.

7.3 Retaining Walls

Retaining walls, including building stems walls, should be designed to resist static lateral earth pressures, lateral pressures caused by earthquakes, and traffic loads (if vehicular traffic is expected within 10 feet of the wall). All on-site walls, including low landscaped walls, should be designed in accordance with the recommendations presented in this section. Retaining walls that are restrained from movement at the top or sides (e.g., a wall with a 90-degree turn) should be designed for at-rest pressures presented in Table 3. Walls that are not restrained from rotation may be designed for active pressures presented in Table 3.

TABLE 3
Lateral Earth Pressures for Retaining Wall Design

Soil Backfill Type	Active Static Condition (Unrestrained)	At-Rest Static Condition (Restrained)	Seismic Condition
On-site Expansive Clay	65 pcf[1]	65 pcf	45 pcf + 9 pcf
Imported Select Fill	34 pcf	54 pcf	35 pcf + 12 pcf

1. Equivalent fluid weight (triangular distribution); pcf = pounds per cubic foot

The design pressures recommended above are based on fully drained walls. Although the retaining walls will be above the groundwater level, water can accumulate behind the walls from other sources, such as rainfall, irrigation, and broken water lines. One acceptable method for

backdraining a retaining wall is to place a prefabricated drainage panel against the back of the wall. The drainage panel should extend down to a perforated PVC collector pipe at the base of the wall. The pipe should be surrounded on all sides by at least four inches of Caltrans Class 2 permeable material or 3/4-inch drain rock wrapped in filter fabric (Mirafi NC or equivalent). AdvanEdge pipe or equivalent may be used in lieu of the pipe and permeable material. The pipe should be sloped at an inclination of at least one percent to a suitable discharge location.

Wall backfill material and compaction should conform to the recommendations presented previously in Section 7.1. The upper foot of backfill should consist of low-permeability backfill material to limit surface water infiltration into the backfill. Lightweight compaction equipment should be used to reduce stresses induced on the retaining walls during fill placement unless the walls are appropriately braced.

Free-standing retaining walls may be supported on spread footings bottomed at least 36 inches below the lowest adjacent grade. Footings should be at least 18 inches wide and should be designed using allowable bearing pressures of 2,500 and 3,330 psf for dead-plus-live and total load conditions, respectively. Resistance to lateral loads may be computed using passive resistance and friction between the bottom of the footing and the supporting soil. To compute passive resistance for transient load conditions, a uniform passive pressure of 1,000 psf may be used. To compute passive resistance for sustained loading, an equivalent fluid weight of 230 pcf should be used. The upper foot of soil should be ignored in computing passive resistance unless the soil is confined by pavement or flatwork. To compute frictional resistance, a friction factor of 0.30 should be used. The passive pressure and friction factor include factors of safety of 1.5 and may be used in combination without reduction.

The soil exposed at the bottoms and sides of footing excavations must be kept moist and free of shrinkage cracks prior to concrete placement. To protect the footings from drying to summer months and saturation during winter months, we recommend a rat slab consisting of at least two inches of CLSM be placed in all footing excavations.

7.4 Pavement Design

Design recommendations for asphalt and Portland cement concrete pavements are presented in the following sections.

7.4.1 Flexible (Asphalt Concrete) Pavement Design

The State of California flexible pavement design method was used to develop the recommended asphalt concrete pavement sections. The final soil subgrade in asphalt-paved areas may consist of native clay or lime-treated native clay. If lime treatment is used to strengthen the soil subgrade, a minimum treatment depth of 18 inches should be used. Based on our experience, we assumed R-values of 5 and 25 for the untreated and lime-treated highly expansive clay, respectively. The Civil Engineer for the project should check that the TI's presented in this report are appropriate for the intended use. We can provide additional pavement sections for different TIs if needed.

TABLE 4
AC Pavement Sections

TI	Subgrade Lime Treated ?	Asphaltic Concrete (inches)	Class 2 Aggregate Base R = 78 (inches)
4.5	No	2.5	9.5
4.5	Yes	2.5	6.0
5.0	No	3.0	10.0
5.0	Yes	3.0	6.0
5.5	No	3.0	12.0
5.5	Yes	3.0	6.0
6.0	No	3.5	13.0
6.0	Yes	3.5	6.0
6.5	No	4.0	13.5
6.5	Yes	4.0	6.0

The soil subgrade beneath AC pavements should be prepared and compacted in accordance with the recommendations presented in Section 6.1. In addition, the subgrade should be a firm and non-yielding surface. The subgrade should be proof-rolled to confirm it is non-yielding prior to placing the aggregate base. The Class 2 aggregate base should be moisture-conditioned to near optimum moisture content and compacted to at least 95 percent relative compaction.

If pavements slope down away from irrigated landscaped areas, curbs adjacent to those areas should extend through the aggregate base and at least three inches into the underlying soil to reduce the potential for irrigation water to infiltrate into the pavement section. If drip irrigation is used in the landscaping adjacent to the pavement, however, the deepened curb is not required.

7.4.2 Rigid (Portland Cement Concrete) Pavement

Concrete pavement design is based on a maximum single-axle load of 20,000 pounds and a maximum tandem axle load of 36,000 pounds and moderate truck traffic (i.e., several trucks per week). The recommended rigid pavement section for these axle loads is 6.5 inches of Portland cement concrete (PCC) over six inches of Class 2 aggregate base. For areas that will receive fire truck traffic, the PCC thickness should be increased to 7.0 inches. For areas that will experience only passenger vehicle traffic, the recommended pavement section is five inches of PCC over six inches of Class 2 aggregate base.

The modulus of rupture and unconfined compressive strength of the concrete should be at least 500 and 3,200 pounds per square inch (psi) at 28 days, respectively. Contraction joints should be placed at maximum spacing of 15 feet. Where the outer edge of a concrete pavement meets asphalt pavement, the concrete slab should be thickened by 50 percent at a taper not to exceed a slope of 1 in 10. The pavement should be reinforced with a minimum of No. 4 bars at 18 inches on center in both directions. Recommendations for subgrade preparation and aggregate base compaction for concrete pavement are the same as those we have described above for asphalt concrete pavement.

7.5 Seismic Design

For design in accordance with the 2016 CBC, we recommend Site Class D be used. The latitude and longitude of the site are 37.4752° and -122.1539°, respectively. Hence, in accordance with the 2016 CBC, we recommend the following:

- S_S = 1.50g, S_1 = 0.614g
- S_{MS} = 1.50g, S_{M1} = 0.921g
- S_{DS} = 1.00g, S_{D1} = 0.614g
- Seismic Design Category D for Risk Categories I, II, and III.

8.0 GEOTECHNICAL SERVICES DURING CONSTRUCTION

Prior to construction, Rockridge Geotechnical should review the project plans and specifications to verify that they conform to the intent of our recommendations. During construction, our field engineer should provide on-site observation and testing during site preparation, placement and compaction of fill, and installation of foundations. These observations will allow us to compare actual with anticipated soil conditions and to verify that the contractor's work conforms to the geotechnical aspects of the plans and specifications.

9.0 LIMITATIONS

This geotechnical study has been conducted in accordance with the standard of care commonly used as state-of-practice in the profession. No other warranties are either expressed or implied. The recommendations made in this report are based on the assumption that the subsurface conditions do not deviate appreciably from those disclosed in the AMSO test borings and CPTs and the borings we drilled for this investigation. If any variations or undesirable conditions are encountered during construction, we should be notified so that additional recommendations can be made. The foundation recommendations presented in this report are developed exclusively for the proposed development described in this report and are not valid for other locations and construction in the project vicinity.

REFERENCES

2016 California Building Code (CBC).

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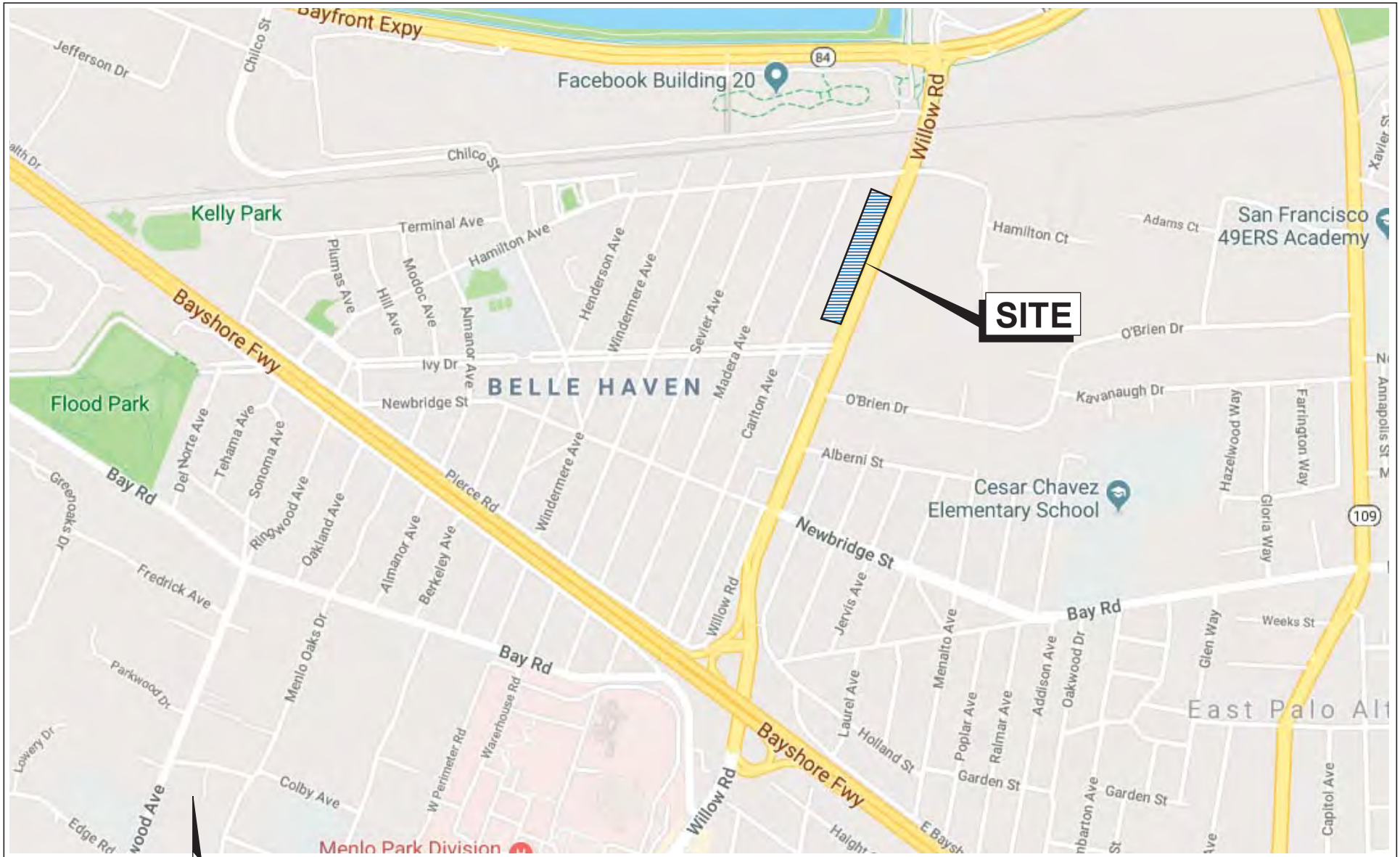
ROCKRIDGE GEOTECHNICAL

FIGURES



Base map: Google Map, 2018

0 1,000 2,000 Feet

Approximate scale

GATEWAY FAMILY HOUSING
Menlo Park, California

ROCKRIDGE GEOTECHNICAL

SITE LOCATION MAP

Date 06/28/18 | Project No. 18-1509 | Figure 1

EXPLANATION

B-1 — Approximate location of boring by Rockridge Geotechnical Inc., June 12, 2018

PB-3 — Approximate location of previous boring by AMSO Consulting Engineers, May 31, 2013

CPT-4 — Approximate location of previous cone penetration test by AMSO Consulting Engineers, May 31, 2013

Project limits

0 80 Feet

Approximate scale

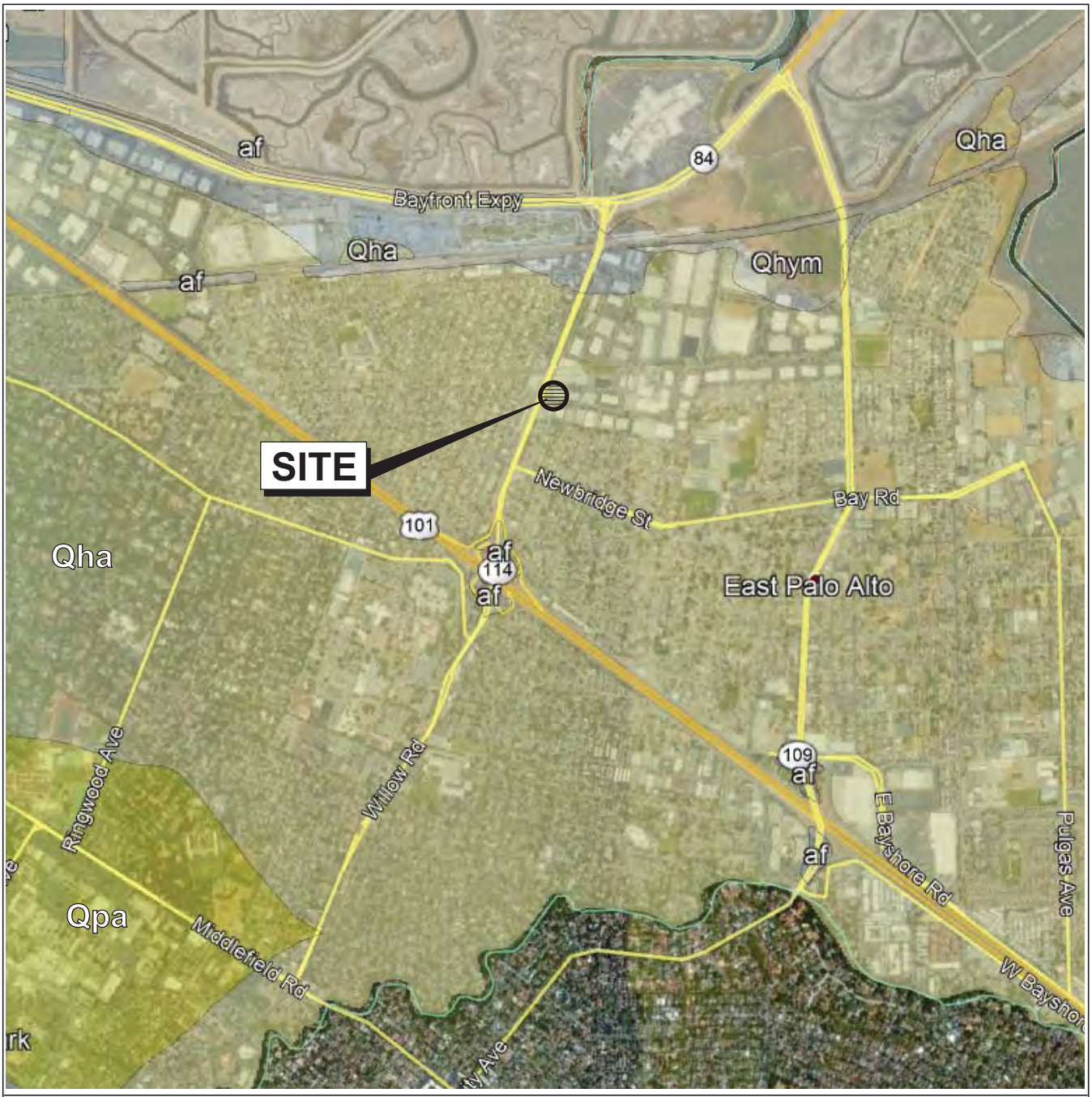
Reference: Base map from a drawing titled "Conceptual Site Plan", dated April 16, 2018.

GATEWAY FAMILY HOUSING
Menlo Park, California

SITE PLAN

Date 07/05/18	Project No. 18-1509	Figure 2

ROCKRIDGE GEOTECHNICAL



Base map: Google Earth with U.S. Geological Survey (USGS), San Mateo County, 2018.

EXPLANATION

af	Artificial Fill
Qhym	Mud deposits (late Holocene)
Qha	Alluvium (Holocene)
Qpa	Alluvium (Pleistocene)
	Geologic contact: dashed where approximate and dotted where concealed, queried where uncertin

N

0 2000 4000 Feet

Approximate scale

GATEWAY FAMILY HOUSING
Menlo Park, California

REGIONAL GEOLOGIC MAP

ROCKRIDGE GEOTECHNICAL

Date 06/20/18 | Project No. 18-1509 | Figure 3

Base Map: U.S. Geological Survey (USGS), National Seismic Hazards Maps - Fault Sources, 2008.

EXPLANATION

- Strike slip
- Thrust (Reverse)
- Normal

0 5 10 Miles

Approximate scale

GATEWAY FAMILY HOUSING
Menlo Park, California

REGIONAL FAULT MAP

ROCKRIDGE GEOTECHNICAL

Date 06/20/18	Project No. 18-1509	Figure 4

EXPLANATION

Liquefaction; Areas where historic occurence of liquefaction, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Earthquake-Induced Landslides; Areas where previous occurence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

0 1,000 2,000 Feet

Approximate scale

Reference:
State of California "Seismic Hazard Zones"
Palo Alto Quadrangle.
Released on October 18, 2006

GATEWAY FAMILY HOUSING
Menlo Park, California

SEISMIC HAZARDS ZONE MAP

ROCKRIDGE GEOTECHNICAL

Date 06/28/18	Project No. 18-1509	Figure 5

ROCKRIDGE GEOTECHNICAL

APPENDIX A

Logs of Test Borings

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-1

Boring location: See Site Plan, Figure 2 | Logged by: R. Ford

Date started: 6/12/18 | Date finished: 6/12/18

Drilling method: 4-Inch Solid Stem Auger

Hammer weight/drop: 140 lbs./30 inches | Hammer type: Safety Hammer

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
0						Asphalt and Cemented Gravel						
3	S&H		7 9 15	17	CH	CLAY (CH) dark brown to dark gray-brown, stiff, wet, trace organics LL = 65, PI = 47; see Appendix B					24.8	100
5	SPT		4 5 9	17	CH	CLAY (CH) dark gray-brown to olive-brown, stiff to very stiff, wet Hydrometer-clay fraction = 44% Particle Size Distribution; see Appendix B				94	23.6	
7	SPT		6 6 7	16	CH	olive-brown with yellow-orange mottled, increased sand content					18.9	
11	SPT		2 3 3	7	CL	SANDY CLAY with GRAVEL (CL) light olive-brown with yellow-orange mottled, medium stiff, wet, fine sand 6/12/2018 (immediately after drilling) Particle Size Distribution; see Appendix B				51	23.8	
16	SPT		4 4 5	11	CL							
20	SPT		4 3 4	8	SC	CLAYEY SAND (SC) light olive-brown, loose, wet, with coarse sand and pebbles						

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 11.1 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 | Figure: A-1

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-2

Boring location: See Site Plan, Figure 2 | Logged by: R. Ford

Date started: 6/12/18 | Date finished: 6/12/18

Drilling method: 4-Inch Solid Stem Auger

Hammer weight/drop: 140 lbs./30 inches | Hammer type: Safety Hammer

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
1						Asphalt and Cemented Gravel						
2												
3	SPT		4 4 7	13	CH	SANDY CLAY (CH) dark gray, gray-brown, light gray mottled, stiff, wet, trace organics						
4												
5	S&H		5 9 11	14	CH	CLAY (CH) dark brown, gray and white mottled, stiff, wet LL = 72, PI = 52; see Appendix B					29.3	94
6						CLAY with SAND (CH) light gray, yellow-brown mottled, stiff to very stiff, wet, trace gravel						
7	SPT		5 6 7	16							24.6	
8					CH							
9												
10						▽ 6/12/2018 (immediately after drilling)						
11	SPT		3 3 3	7		SANDY CLAY (CL) pale yellow to white, yellow-orange, medium stiff, wet						
12					CL							
13												
14						SANDY CLAY (CL) light gray and yellow-red brown, medium stiff, wet, fine sand Particle Size Distribution; see Appendix B						
15												
16	SPT		3 3 4	8						58	24.9	
17					CL							
18												
19												
20						stiff						
21	SPT		5 5 5	12								
22												
23												
24												
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 10.2 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 | Figure: A-2

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-3

Boring location: See Site Plan, Figure 2
Logged by: R. Ford
Date started: 6/12/18 Date finished: 6/12/18
Drilling method: 4-Inch Solid Stem Auger
Hammer weight/drop: 140 lbs./30 inches Hammer type: Safety Hammer
Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
						11 inches of Asphalt Concrete						
1	S&H		32 22 28	35	SC	CLAYEY SAND with GRAVEL (SC) light brown, red-brown mottling, dense, moist FILL					8.8	124
3	SPT		3 5 6	13	CH	CLAY (CH) gray-brown to dark gray, stiff, wet, trace organic material, trace sand Hydrometer-clay fraction = 65% Particle Size Distribution; see Appendix B				86	28.1	
5	SPT		3 4 6	12							28.8	
10	SPT		5 4 5	11		▽ 6/12/2018 (immediately after drilling)						
11					CL	CLAY with GRAVEL (CL) pale yellow to white, yellow-brown mottled, stiff, wet, fine subangular gravel, carbonate nodule						
14						▽ 6/12/2018 (during drilling)						
15	SPT		3 4 5	11	CL	SANDY CLAY (CL) light gray and yellow-orange mottled, stiff, wet, fine sand						
20	SPT		3 4 4	10								
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 10 feet and 14 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 Figure: A-3

ROCKRIDGE 18-1509.GPJ TR.GDT 7/9/18

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-4

Boring location: See Site Plan, Figure 2 | Logged by: R. Ford

Date started: 6/12/18 | Date finished: 6/12/18

Drilling method: 4-Inch Solid Stem Auger

Hammer weight/drop: 140 lbs./30 inches | Hammer type: Safety Hammer

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
1						Asphalt and Cemented Gravel						
2												
3	SPT		4 4 6	12	CH	CLAY (CH) dark brown, gray and red mottled, stiff, wet, trace organic material, iron staining, trace sand					30.8	
4												
5	S&H		5 8 10	13	CH	CLAY with SAND (CH) dark gray-brown, stiff, wet, carbonade nodules					28.4	94
6												
7	SPT		4 5 7	14	CH	LL = 66, PI = 47; see Appendix B					25.7	
8												
9						▽ 6/12/2018 (immediately after drilling)							
10					CL	SANDY CLAY (CL) olive-brown mottled gray, stiff to very stiff, wet, fine sand						
11	SPT		5 7 8	18								
12					SC	CLAYEY SAND (SC) very light yellow-gray to white, medium dense, wet						
13												
14												
15					CL	SANDY CLAY (CL) light olive gray, stiff, wet						
16	SPT		4 4 5	11								
17												
18												
19						trace coarse sand, medium stiff						
20												
21	SPT		4 3 4	8								
22												
23												
24												
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 9.3 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 | Figure: A-4

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine -Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML	Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	Silts and Clays LL = > 50	MH	Inorganic silts of high plasticity
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic silts and clays of high plasticity
Highly Organic Soils		PT	Peat and other highly organic soils

GRAIN SIZE CHART

Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4 3" to 3/4" 3/4" to No. 4	76.2 to 4.76 76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 0.075 4.76 to 2.00 2.00 to 0.420 0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

Unstabilized groundwater level

Stabilized groundwater level

SAMPLE DESIGNATIONS/SYMBOLS

Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered

Classification sample taken with Standard Penetration Test sampler

Undisturbed sample taken with thin-walled tube

Disturbed sample

Sampling attempted with no recovery

Core sample

Analytical laboratory sample

Sample taken with Direct Push sampler

Sonic

SAMPLER TYPE

C	Core barrel
CA	California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter
D&M	Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube
O	Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube
PT	Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube
S&H	Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter
SPT	Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter
ST	Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure

GATEWAY FAMILY HOUSING
Menlo Park, California

ROCKRIDGE GEOTECHNICAL

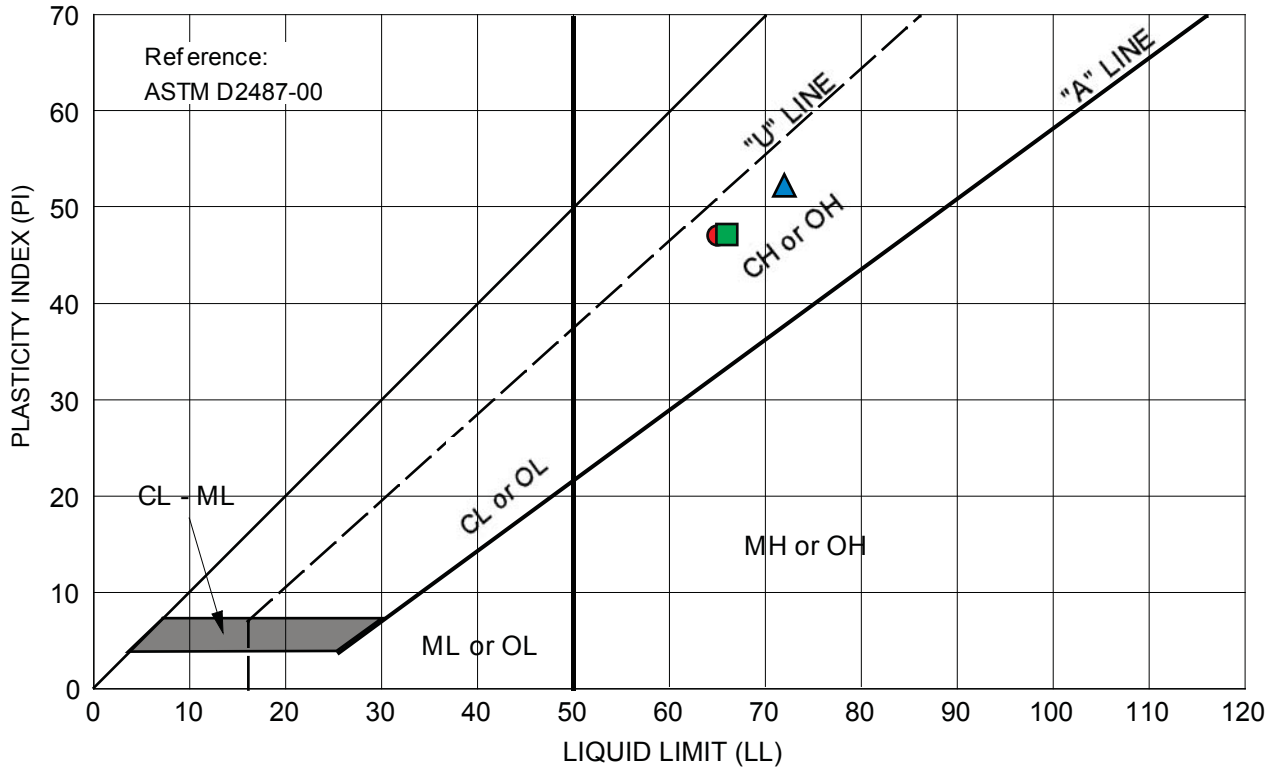
CLASSIFICATION CHART

Date 06/20/18 | Project No. 18-1509 | Figure A-5

ROCKRIDGE GEOTECHNICAL

APPENDIX B

Laboratory Test Results



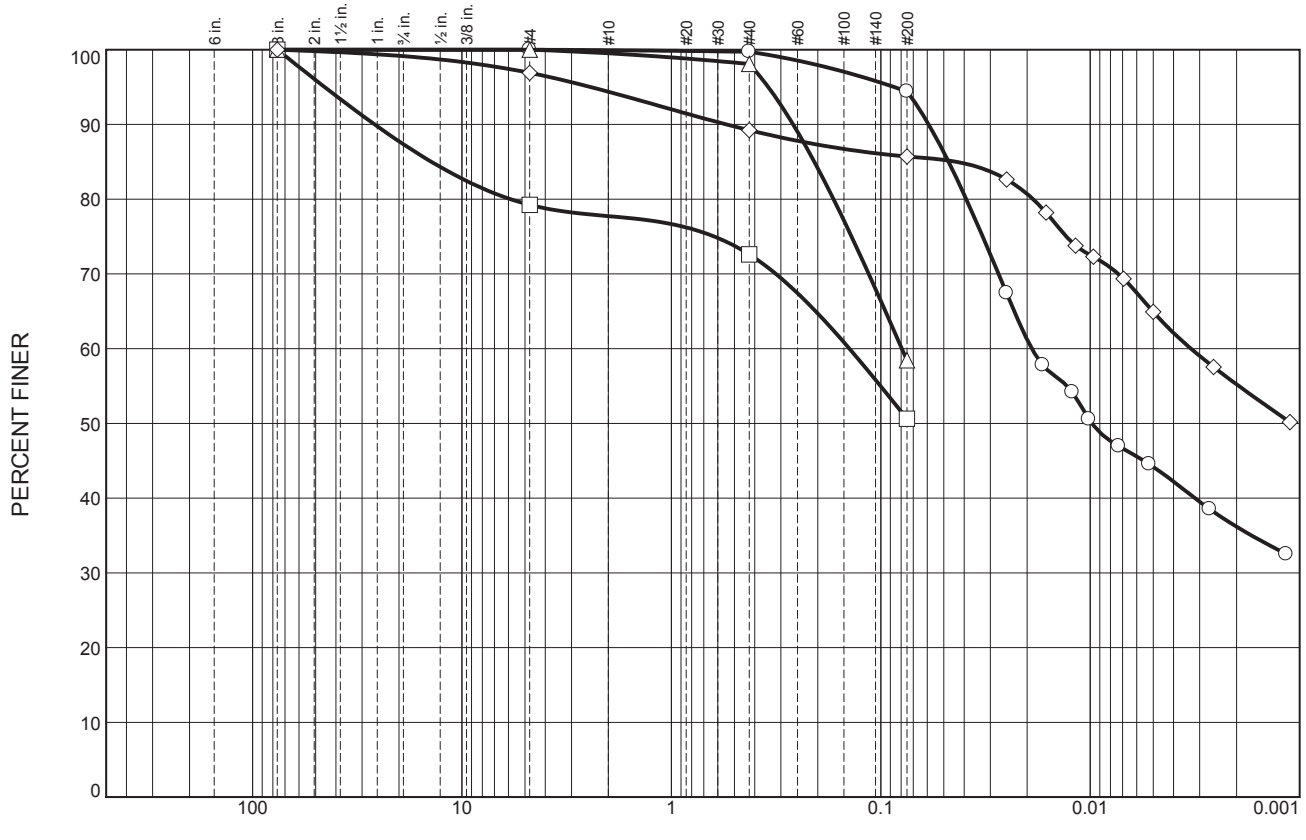
Symbol	Source	Description and Classification	Natural M.C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
●	B-1 at 3.0 feet	CLAY (CH), dark brown to dark gray-brown	24.8	65	47	--
▲	B-2 at 4.5 feet	CLAY (CH), dark brown, gray and white mottled	29.3	72	52	--
■	B-4 at 6.0 feet	CLAY (CH), dark gray-brown	25.7	66	47	--

GATEWAY FAMILY HOUSING
Menlo Park, California

PLASTICITY CHART

ROCKRIDGE GEOTECHNICAL

Date 01/04/18 | Project No. 18-1509 | Figure B-1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	0.2	5.3	50.2	44.2
□	0.0	12.6	8.2	1.5	5.1	22.0	50.6	
△	0.0	0.0	0.0	0.5	1.4	39.7	58.4	
◇	0.0	0.9	2.2	2.5	5.2	3.5	20.8	64.9

SOIL DATA

SYMBOL	SOURCE	DEPTH (ft.)	Material Description	USCS
○	B-1	4.0'	CLAY, dark gray-brown to olive-brown	CH
□	B-1	10.0'	SANDY CLAY, light olive-brown with yellow-orange mottled	CL
△	B-2	15.0'	SANDY CLAY, light gray and yellow-red brown	CL
◇	B-3	3.0'	CLAY, gray-brown to dark gray	CH

GATEWAY FAMILY HOUSING
Menlo Park, California

ROCKRIDGE GEOTECHNICAL

PARTICLE SIZE DISTRIBUTION REPORT

Date 01/04/18 | Project No. 18-1509 | Figure B-2

Results Only Soil Testing for 1300 Willow Street

June 22, 2018

Prepared for:
Craig Shields
Rockridge Geotechnical
270 Grand Ave,
Oakland, CA 94610
csshields@rockridgegeo.com

Project X Job#: S180618D
Client Job or PO#: 18-1509

Soil Analysis Lab Results

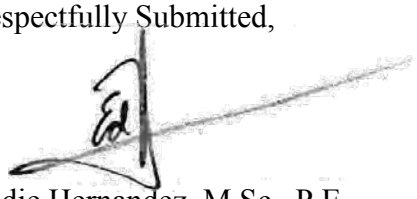
Client: Rockridge Geotechnical
Job Name: 1300 Willow Street
Client Job Number: 18-1509
Project X Job Number: S180618D
June 22, 2018

	Method	ASTM G187		ASTM D516		ASTM D512B		SM 4500-NO3-E	SM 4500-NH3-C	SM 4500-S2-D	ASTM G200	ASTM G51
Bore# / Description	**Depth**	**Resistivity** As Rec'd	Minimum	**Sulfates**		**Chlorides**		**Nitrate**	**Ammonia**	**Sulfide**	**Redox**	**pH**
	(ft)	(Ohm-cm)	(Ohm-cm)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(mg/kg)	(mg/kg)	(mV)	
B-2 / (CH)	2-2.5	590	543	12	0.0012	27	0.0027	6	6.3	0.36	142	8.36

Unk = Unknown
NT = Not Tested
ND = 0 = Not Detected
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
Chemical Analysis performed on 1:3 Soil-To-Water extract

Please call if you have any questions.

Respectfully Submitted,



Eddie Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com

Project X
Corrosion Engineering
Corrosion Control - Soil, Water, and Metallurgy Lab

Lab Request Sheet Chain of Custody
Phone: (213) 928-7213 · Fax (951) 226-1720 · www.projectxcorrosion.com
Ship Samples To: 29970 Technology Dr, Suite 105F, Murrieta, CA 92563

Project X Job Number S180618D Rockridge 18-1509 / Full

IMPORTANT: Please complete Project and Sample Identification Data as you would like it to appear in report & include this form with samples.

Company Name:	Rockridge Geotechnical	**Contact Name:**	Craig Shields — **Phone No. :** 510-420-5738
Mailing Address:	270 Grand Avenue, Oakland 94610	**Contact Email:**	csshields@rockridgegeo.com
Accounting Contact:	Jarka Stepanek	**Invoice Email:**	invoices@rockridgegeo.com
Client Project No:	18-1509	**P.O. #:**	
Project Name:	1300 Willow Street		

Turn Around Time: 5 Day Normal ✓ | 3 Day RUSH 75% mark-up | 2 Day RUSH 100% mark-up

Results By: ☐ Phone ☐ Fax ☑ Email ☐ Mail ☐ Overnight Mail (charges apply)

Date & Received by : **Default Method**

SPECIAL INSTRUCTIONS:

ANALYSIS REQUESTED (Please circle)

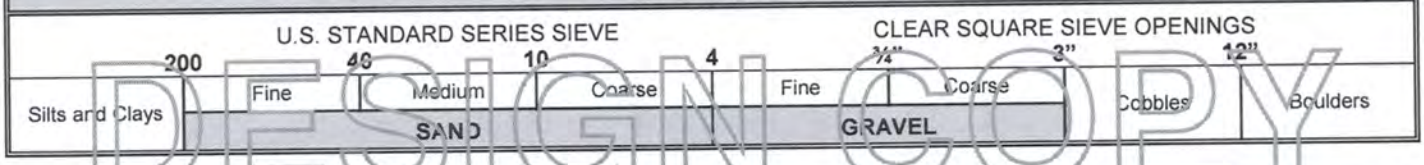
Min. Resistivity, Sulfate, Chloride, Sulfide, Redox, pH, Ammonia, Nitrate	ASTM G187	AASHTO T2888	Caltrans CTM64	Caltrans CTM64	AASHTO T 289	Caltrans CTM41	AASHTO T 290	Caltrans CTM42	AASHTO T 291													
										SM 2580B	SM 2320B	SM 2520B	SM 2510B	Hach 835	SM 4500-NO3	Hach 830	SM 4500-NH3	SM 4500-S2	SM 4500-S2	ASTM D2216		
CORROSION SERIES	Soil Resistivity	pH	Sulfate	Chloride	Redox Potential	BiCarbonate	Alkalinity	Acidity	Nitrate	Ammonia	Sulfide	Moisture Content	Soil Corrosivity Evaluation Report	Metallurgical Analysis	NOTES
1	B-2	CLAY (CH), dark gray	2-2.5 ft	06/12/18	✓																	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

KEY TO EXPLORATORY BORING LOGS

SOIL CLASSIFICATIONS

PRIMARY DIVISIONS			GROUP1 SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More than half of material is larger than No. 200 sieve size	GRAVELS More than half coarse fraction is larger than No.4 sieve	Clean Gravels (less than5% fines*)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravel with fines*	GM	Silty gravels, gravel-sand-silt mixtures, non-plastio fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastio fines
	SANDS More than half coarse fraction is smaller than No.4 sieve	Clean Sands (less than 5%fines*)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		Sands with fines*	SM	Silty sands, silt-sand mixtures, non-plastio fines
			SC	Clayey sand, sand-clay mixtures, plastio fines
FINE GRAINED SOILS More than half of material is smaller than No. 200 sieve size	SILTS AND CLAYS Liquid limit is less than 35		ML	Inorganic silts, clayey silts, rock flour, silty very fine sands
			CL	Inorganic clays of low plasticity, gravelly clay of low plasticity
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit is between35 and 50		MI	Inorganic silts, clayey silts and silty fine sand with intermediate plasticity
			CI	Inorganic clays, gravely clays, sandy clays and silty clays of intermediate plasticity
			OI	Inorganic clays and silty clays of intermediate plasticity
	SILTS AND CLAYS Liquid limit is greater than 50		MH	Inorganic silts, clayey silts, elastic silts, micaceous or diatomaceous silty or fine sandy soil
			CH	Inorganic clays of high plasticity
			OH	Organic clays and silts of high plasticity
HIGHLY ORGANIC SOILS			Pt	Peat, meadow mat, highly organic soils

GRAIN SIZES



DESIGN COPY

RELATIVE DENSITY

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT*
VERY LOOSE	0 – 4
LOOSE	4 – 10
MEDIUM DENSE	10 – 30
DENSE	30 – 50
VERY DENSE	OVER 50

CONSISTENCY

CLAYS AND PLASTIC SILTS	UNCONFINED SHEAR STRENGTH (PSF)	BLOWS/FOOT*
VERY SOFT	0 – 250	0 – 2
SOFT	250-500	2 – 4
FIRM	500-1000	4 – 8
STIFF	1000-2000	8 – 16
VERY STIFF	2 000– 4000	16 – 32
HARD	>4000	OVER 32

SYMBOLS

▽	Initial Ground Water Level
▼	Final Ground Water Level
*	Standard Penetration Sampler
X	Modified California Sampler
D	Dames & Moore Sampler

NOTES

*BLOWS per FOOT – Resistance to advance the soil sampler in number of blows of a 140-pound hammer falling 30 inches to drive a split spoon sampler.

Stratification lines on the logs represent the approximate boundary between soil types, and the transition may be gradual.

Modified California Sampler – 2 ½ O.D. (1 7/8 Inch I.D.) sampler

Standard Penetration Sampler – 2 inch O.D. (1 3/8 Inch I.D.) split spoon sampler (ASTM D1586).

Dames & Moore Sampler – 3 inch O.D. (2.5 inch I.D.) sampler

AMSO CONSULTING ENGINEERS

ROCKRIDGE GEOTECHNICAL

APPENDIX C

Logs of Test Borings, CPT Data, and Laboratory Test Results from AMSO Report

BORING LOG

No. B-3

PROJECT **Menlo Gateway Apartments** DATE 05/31/2013 LOGGED BY BAA

DRILL RIG Minute Man, Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 11 ft FINAL 10.5 ft HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; dark gray to black, damp, stiff	CH	1										
		2	x				65		26			
		3	x	21	2.5			28		89	10	4400
		4										
		5										
		6										
Silty Clay; brown, damp, stiff	CL/ CH	7	x	18	2			25		94	10	5710
		8	*	10	1							
Silty Clay; light to yellowish brown, damp to moist, medium stiff	CL	9										
		10										
		11				▽						
		12	x	8	1							
		13										
		14										
		15										
		16	x	11	1.1							
		17										
		18										
		19										
Bottom of hole at 20 feet		20	*	8	1.2							

DESIGN COPY

BORING LOG

No. B-4

PROJECT **Menlo Gateway Apartments** DATE 05/31/2013 LOGGED BY BAA

DRILL RIG Minute Man, Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 11 ft FINAL 10 ft HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; dark grayish brown, dry, medium stiff; with minor amount of crushed rocks	CH	1										
		2	x				62		28			
			x	21	2			30		86	10	4535
		3										
		4										
		5										
Silty Clay; brown, damp, stiff	CL/ CH	6										
		7	x	19	2			23		97	10	4880
Silty Clay; light brown, damp, stiff	CL	8										
		9										
		10				▼						
medium stiff		11				▽						
		12										
		13	x	10	2.1							
		14										
		15										
		16										
		17										
		18										
		19										
Bottom of hole at 20 feet		20	x	15	1.5							

DESIGN COPY

PLASTICITY INDEX

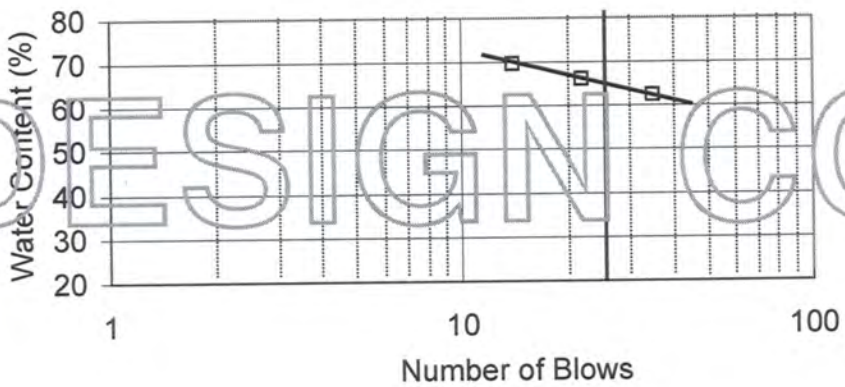
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	**Menlo Gateway**	Project No.:	3595
Sample No.:	B3 - 2 feet	Lab No.:	
Location		Test Date:	06/07/2013
Description:	Silty Clay	Tested By:	TOSCANO TESTING

TEST DATA

	Liquid Limit				Plastic limit			Water Content
Number of Blows	14	22	35					
Tare Number	10	20	32		5			
Tare + Wet Wt (gm)	41.40	46.70	45.80		47.73			
Tare + Dry Wt (gm)	30.70	34.06	34.30		41.10			
Tare Wt (gm)	15.34	14.95	15.87		15.50			
Wt of Water (gm)	10.70	12.64	11.50		6.63			
Soil Dry Wt (gm)	15.36	19.11	18.43		25.60			
Water Content (%)	69.66	66.14	62.40		25.90			
			Average		25.90			

Liquid Limit Test



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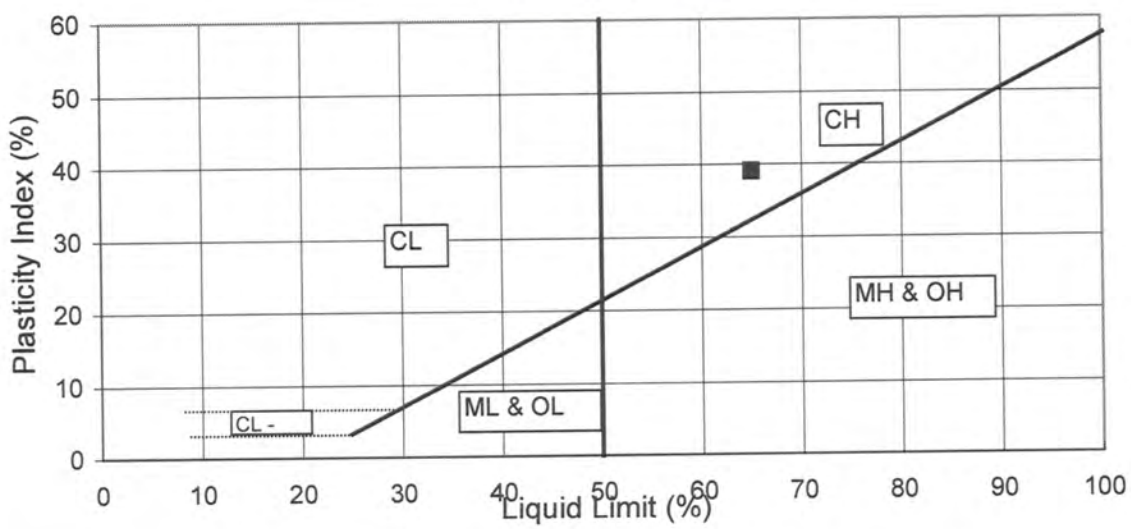
LL	PL	PI
65	26	39

Plasticity Chart



PLASTICITY INDEX

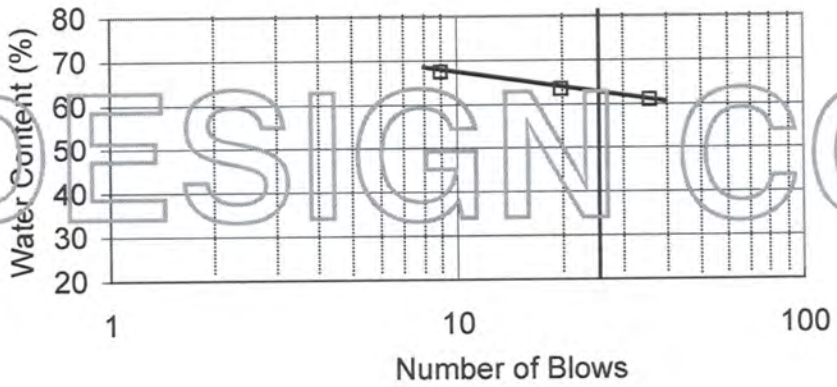
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	**Menlo Gateway**	Project No.:	3595
Sample No.:	B4 - 2 feet	Lab No.:	
Location		Test Date:	06/07/2013
Description:	Silty Clay	Tested By:	TOSCANO TESTING

TEST DATA

	Liquid Limit				Plastic limit			Water Content
Number of Blows	9	20	36					
Tare Number	X	Q	M		6			
Tare + Wet Wt (gm)	50.77	46.56	49.95		45.50			
Tare + Dry Wt (gm)	37.34	34.62	36.94		39.00			
Tare Wt (gm)	17.43	15.82	15.62		15.52			
Wt of Water (gm)	13.43	11.94	13.01		6.50			
Soil Dry Wt (gm)	19.91	18.80	21.32		23.48			
Water Content (%)	67.45	63.51	61.02		27.68			
			Average		27.68			

Liquid Limit Test



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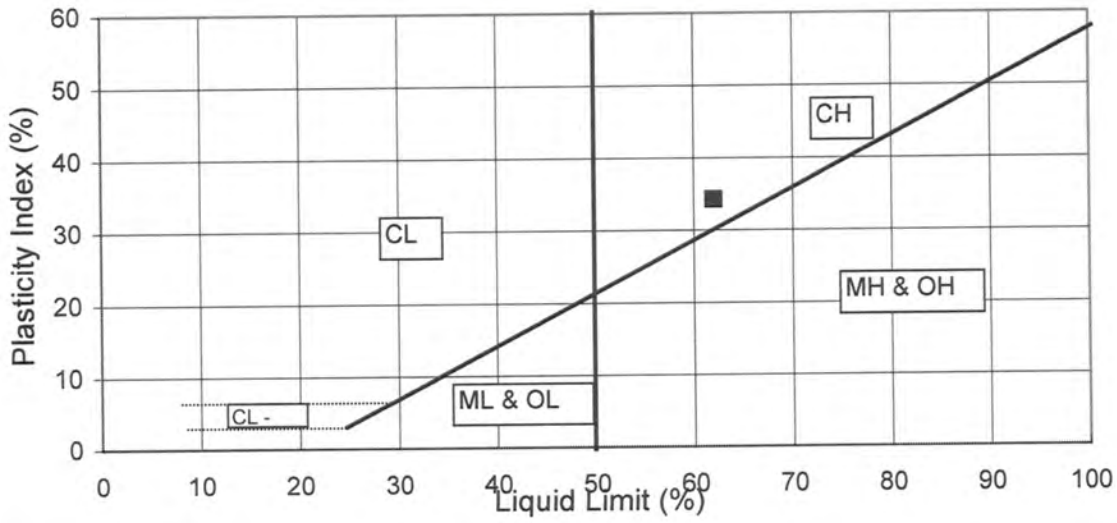
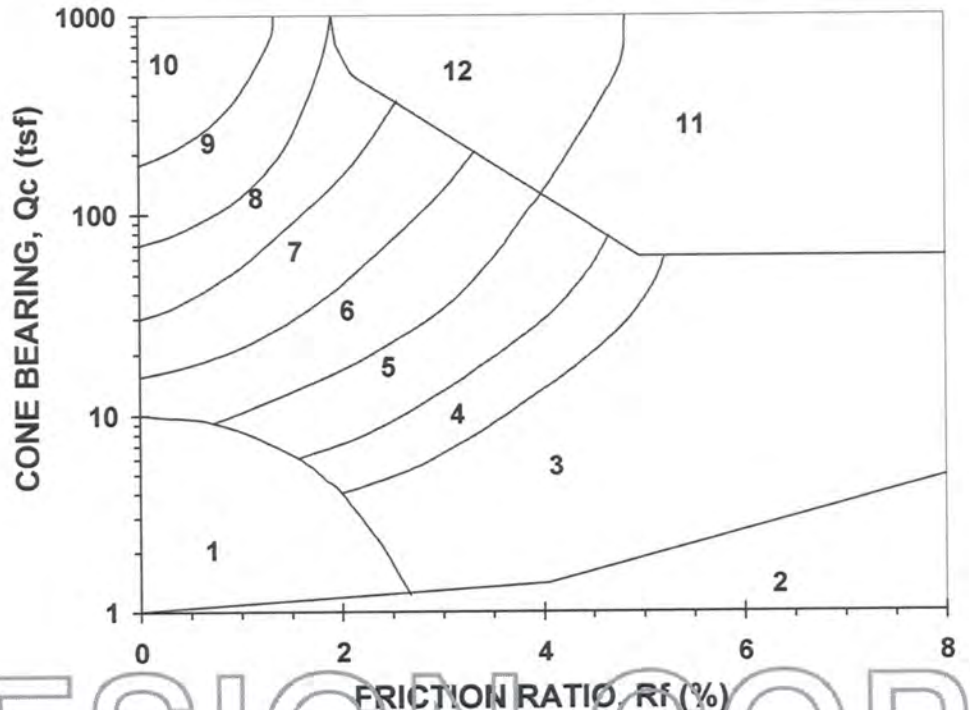
LL	PL	PI
62	28	34

Plasticity Chart



SIMPLIFIED SOIL BEHAVIOR TYPE CLASSIFICATION FOR STANDARD ELECTRONIC CONE PENETROMETER



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ZONE	Qc/N[1]	Su Factor (Nk)[2]	SOIL BEHAVIOR TYPE[1]
1	2	for Zones 1 to 6 10 for Qc <= 9 tsf 12 for Qc = 9 to 12 tsf 15 for Qc > 12 tsf	Sensitive Fine Grained
2	1		Organic Material
3	1		CLAY
4	1.5		Silty CLAY to CLAY
5	2		Clayey SILT to Silty CLAY
6	2.5		Sandy SILT to Clayey SILT
7	3	---	Silty SAND to Sandy SILT
8	4	---	SAND to Silty SAND
9	5	---	SAND
10	6	---	Gravelly SAND to SAND
11	1	15	Very Stiff Fine Grained (*)
12	2	---	SAND to Clayey SAND (*)

(*) Overconsolidated or Cemented

Qc = Tip Bearing
Fs = Sleeve Friction
Rf = Fs/Qc*100 = Friction Ratio

References: [1]Robertson, 1986, Olsen, 1988
[2]Bonaparte & Mitchell, 1979 (young bay mud Qc <= 9)
[2]Estimated from local experience (fine grained soils Qc > 9)

Note: Testing performed in accordance with ASTM D3441

John Sarmiento & Associates
Cone Penetrometer Testing Services

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 20.0 feet

CPT NO.: CPT-4
DATE: 05-30-2013
TIME: 12:26:00
Groundwater measured at 9.8 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.55	33.0	52.80	1.10	3.3	17	26	0.06	----	4.40	Clayey SILT to Silty CLAY	130-140
1.05	13.4	21.44	0.98	7.3	13	21	0.13	----	1.78	CLAY	120-130
1.55	8.8	14.08	0.72	8.2	9	14	0.19	----	1.74	"	"
2.01	9.2	14.72	0.63	6.9	9	15	0.25	----	1.51	"	"
2.52	9.6	15.36	0.73	7.6	10	15	0.31	----	1.57	"	"
3.02	11.7	18.72	0.81	6.9	12	19	0.37	----	1.92	"	"
3.56	13.0	20.80	0.91	7.0	13	21	0.44	----	1.70	"	"
4.05	17.6	28.16	1.09	6.2	18	28	0.51	----	2.31	"	130-140
4.55	19.0	30.40	1.18	6.2	19	30	0.57	----	2.50	"	"
5.03	14.8	23.68	0.98	6.6	15	24	0.63	----	1.93	"	120-130
5.50	20.0	32.00	1.26	6.3	20	32	0.70	----	2.62	"	130-140
6.02	47.7	76.32	2.64	5.5	48	76	0.77	----	6.31	"	"
6.54	83.8	130.67	4.90	5.9	84	131	0.84	----	11.12	Very Stiff Fine Grained *	>140
7.02	116.9	174.69	4.69	4.0	117	175	0.91	----	15.53	"	130-140
7.51	95.3	136.19	4.58	4.8	95	136	0.97	----	12.64	"	"
8.03	63.9	88.06	2.63	4.1	32	44	1.04	----	8.45	Clayey SILT to Silty CLAY	"
8.50	70.3	94.57	1.70	2.4	28	38	1.11	----	9.30	Sandy SILT to Clayey SILT	"
9.05	78.6	102.69	1.52	1.9	26	34	1.18	>38	----	Silty SAND to Sandy SILT	"
9.57	153.3	194.74	2.39	1.6	38	49	1.25	>42	----	SAND to Silty SAND	"
10.08	151.0	189.13	2.44	1.6	38	47	1.29	>42	----	"	"
10.50	209.4	259.61	1.79	0.9	42	52	1.31	>44	----	SAND	120-130
11.01	125.7	153.62	2.08	1.7	31	38	1.35	>40	----	SAND to Silty SAND	130-140
11.54	63.1	76.43	0.31	0.5	16	19	1.37	>35	----	"	100-110
12.04	140.7	168.33	1.66	1.2	35	42	1.40	>41	----	"	120-130
12.53	159.7	188.70	1.42	0.9	32	38	1.43	>42	----	SAND	"
13.06	153.1	178.47	1.59	1.0	31	36	1.47	>41	----	"	"
13.52	36.2	41.62	1.15	3.2	18	21	1.50	----	4.71	Clayey SILT to Silty CLAY	130-140
14.07	4.1	4.69	0.22	5.4	4	5	1.52	----	0.64	CLAY	90-100
14.50	3.3	3.76	0.25	7.6	3	4	1.53	----	0.48	Organic Material	"
15.05	8.5	9.59	0.55	6.5	9	10	1.56	----	1.51	CLAY	110-120
15.59	20.6	22.94	1.06	5.2	21	23	1.60	----	2.61	"	130-140
16.04	9.1	10.04	0.66	7.3	9	10	1.63	----	1.35	"	120-130
16.52	5.4	5.92	0.21	3.9	5	6	1.65	----	0.87	"	100-110
17.04	7.9	8.60	0.23	2.9	5	6	1.67	----	1.37	Silty CLAY to CLAY	"
17.57	10.5	11.32	0.38	3.6	11	11	1.70	----	1.57	CLAY	110-120
18.02	9.9	10.59	0.49	5.0	10	11	1.72	----	1.46	"	"
18.56	9.3	9.85	0.31	3.3	6	7	1.75	----	1.36	Silty CLAY to CLAY	"
19.01	7.5	7.91	0.22	2.9	5	5	1.77	----	1.26	"	100-110
19.55	11.1	11.64	0.36	3.2	7	8	1.80	----	1.65	"	110-120
20.06	19.1	19.85	1.04	5.5	19	20	1.84	----	2.38	CLAY	130-140

DESIGN COPY

DEPTH = Sampling interval (~0.1 feet)
Qc = Tip bearing uncorrected Qt = Tip bearing corrected Fs = Sleeve friction resistance Rf = Qt / Fs
SPT = Equivalent Standard Penetration Test Qt' and SPT' = Qt and SPT corrected for overburden
EffVtStr = Effective Vertical Stress using est. density** Phi = Soil friction angle*
Su = Undrained Soil Strength* (see classification chart)
References: * Robertson and Campanella, 1988 **Olsen, 1989 *** Durgunoglu & Mitchell, 1975

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 30.0 feet

CPT NO.: CPT-5
DATE: 05-30-2013
TIME: 13:04:00
Groundwater measured at 9.7 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.51	0.9	1.44	1.23	20.0	1	1	0.06	----	0.17	Organic Material	100-110
1.07	165.3	264.48	3.41	2.1	55	88	0.13	>44	----	Silty SAND to Sandy SILT	130-140
1.53	41.4	66.24	1.35	3.3	21	33	0.20	----	5.51	Clayey SILT to Silty CLAY	"
2.01	10.6	16.96	0.89	8.4	11	17	0.26	----	1.75	CLAY	120-130
2.54	10.9	17.44	0.74	6.8	11	17	0.32	----	1.79	"	"
3.00	9.8	15.68	0.76	7.8	10	16	0.38	----	1.60	"	"
3.53	9.8	15.68	0.79	8.1	10	16	0.45	----	1.60	"	"
4.04	8.8	14.08	0.73	8.3	9	14	0.51	----	1.71	"	"
4.56	9.8	15.68	0.77	7.9	10	16	0.58	----	1.59	"	"
5.09	9.2	14.72	0.63	6.9	9	15	0.64	----	1.48	"	"
5.53	9.8	15.68	0.71	7.2	10	16	0.70	----	1.58	"	"
6.08	16.9	27.04	0.88	5.2	17	27	0.76	----	2.20	"	"
6.53	16.1	25.41	0.79	4.9	16	25	0.82	----	2.09	"	"
7.06	13.2	19.96	0.90	6.8	13	20	0.89	----	1.70	"	"
7.52	21.2	30.74	0.97	4.6	21	31	0.95	----	2.76	"	130-140
8.06	14.9	20.68	1.25	8.4	15	21	1.02	----	1.92	"	"
8.53	22.2	30.08	0.81	3.7	15	20	1.09	----	2.89	Silty CLAY to CLAY	"
9.04	4.8	6.35	0.29	6.0	5	6	1.15	----	0.85	CLAY	100-110
9.57	3.3	4.30	0.26	7.9	3	4	1.18	----	0.54	Organic Material	90-100
10.06	1.6	2.07	0.20	12.5	2	2	1.20	----	0.20	"	"
10.52	2.5	3.22	0.32	12.8	3	3	1.22	----	0.37	"	"
11.05	1.1	1.41	0.21	19.1	1	1	1.23	----	0.09	"	"
11.51	3.4	4.31	0.41	12.1	3	4	1.25	----	0.54	"	100-110
12.04	5.2	6.53	0.72	13.9	5	7	1.28	----	0.90	"	110-120
12.56	8.3	10.29	0.62	7.5	8	10	1.31	----	1.51	CLAY	120-130
13.04	8.3	10.17	0.81	9.8	8	10	1.34	----	1.50	Organic Material	"
13.55	15.6	18.88	0.74	4.7	16	19	1.37	----	1.97	CLAY	"
14.08	11.0	13.14	0.60	5.5	11	13	1.41	----	1.69	"	"
14.51	12.1	14.29	0.58	4.8	12	14	1.43	----	1.50	"	"
15.01	11.9	13.88	0.59	5.0	12	14	1.47	----	1.83	"	"
15.56	15.0	17.25	1.05	7.0	15	17	1.50	----	1.88	"	"
16.01	15.3	17.41	1.29	8.4	15	17	1.53	----	1.91	"	130-140
16.50	12.6	14.20	0.75	6.0	13	14	1.56	----	1.55	"	120-130
17.02	12.6	14.05	0.71	5.6	13	14	1.60	----	1.54	"	"
17.54	9.2	10.17	0.49	5.3	9	10	1.62	----	1.36	"	110-120
18.06	11.2	12.27	0.43	3.8	11	12	1.65	----	1.68	"	"
18.54	12.1	13.13	0.42	3.5	8	9	1.68	----	1.46	Silty CLAY to CLAY	120-130
19.03	16.6	17.82	0.63	3.8	11	12	1.71	----	2.06	"	"
19.57	19.6	20.81	0.81	4.1	13	14	1.75	----	2.46	"	"
20.02	18.5	19.51	0.72	3.9	12	13	1.77	----	2.30	"	"
20.52	13.1	13.71	0.44	3.4	9	9	1.81	----	1.58	"	"
21.03	18.7	19.43	0.56	3.0	9	10	1.84	----	2.32	Clayey SILT to Silty CLAY	"
21.53	25.0	25.76	1.03	4.1	17	17	1.87	----	3.16	Silty CLAY to CLAY	130-140
22.07	26.8	27.36	1.19	4.4	18	18	1.91	----	3.39	"	"
22.52	24.6	24.92	1.02	4.2	16	17	1.95	----	3.10	"	"
23.04	20.3	20.38	0.99	4.9	20	20	1.98	----	2.52	CLAY	"
23.50	18.4	18.40	0.85	4.6	18	18	2.01	----	2.26	"	120-130
24.08	11.7	11.69	0.41	3.5	8	8	2.04	----	1.70	Silty CLAY to CLAY	110-120
24.52	9.6	9.59	0.30	3.1	6	6	2.07	----	1.35	"	"
25.01	9.3	9.28	0.30	3.2	6	6	2.09	----	1.30	"	"
25.53	9.3	9.28	0.32	3.4	9	9	2.12	----	1.29	CLAY	"
26.00	13.4	13.36	0.34	2.5	7	7	2.14	----	1.58	Clayey SILT to Silty CLAY	"
26.57	14.8	14.75	0.39	2.6	7	7	2.18	----	1.76	"	120-130
27.01	14.8	14.74	0.40	2.7	7	7	2.21	----	1.75	"	"

DESIGN COPY

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 30.0 feet

CPT NO.: CPT-5
DATE: 05-30-2013
TIME: 13:04:00
Groundwater measured at 9.7 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
27.54	58.5	58.21	3.18	5.4	58	58	2.24	----	7.58	Very Stiff Fine Grained *	130-140
28.02	127.8	127.09	1.68	1.3	32	32	2.28	>39	----	SAND to Silty SAND	"
28.58	16.8	16.69	0.66	3.9	11	11	2.31	----	2.01	Silty CLAY to CLAY	120-130
29.02	16.0	15.89	0.57	3.6	11	11	2.34	----	1.90	"	"
29.50	17.4	17.27	0.77	4.4	17	17	2.37	----	2.08	CLAY	"
30.04	10.2	10.12	0.68	6.7	10	10	2.41	----	1.39	"	"

DEPTH = Sampling interval (~0.1 feet)
Qc = Tip bearing uncorrected Qt = Tip bearing corrected Fs = Sleeve friction resistance Rf = Qt / Fs
SPT = Equivalent Standard Penetration Test Qt' and SPT' = Qt and SPT corrected for overburden
EffVtStr = Effective Vertical Stress using est. density** Phi = Soil friction angle*
Su = Undrained Soil Strength* (see classification chart)
References: * Robertson and Campanella, 1988 **Olsen, 1989 *** Durgunoglu & Mitchell, 1975

DESIGN COPY

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 50.0 feet

CPT NO.: CPT-6
DATE: 05-30-2013
TIME: 14:00:00
Groundwater measured at 10.5 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.54	3.5	5.60	2.57	20.0	4	6	0.06	----	0.69	Organic Material	120-130
1.03	83.5	133.60	1.45	1.7	28	45	0.13	>40	----	Silty SAND to Sandy SILT	130-140
1.51	15.9	25.44	1.05	6.6	16	25	0.19	----	2.11	CLAY	"
2.02	5.8	9.28	0.69	11.9	6	9	0.25	----	1.13	Organic Material	110-120
2.52	10.9	17.44	0.87	8.0	11	17	0.31	----	1.79	CLAY	120-130
3.07	8.6	13.76	0.75	8.7	9	14	0.38	----	1.68	"	"
3.51	9.8	15.68	0.76	7.8	10	16	0.44	----	1.60	"	"
4.03	9.8	15.68	0.83	8.5	10	16	0.50	----	1.59	"	"
4.54	10.9	17.44	0.67	6.2	11	17	0.57	----	1.77	"	"
5.01	11.2	17.92	0.69	6.2	11	18	0.63	----	1.81	"	"
5.50	16.1	25.76	0.98	6.1	16	26	0.69	----	2.10	"	"
6.06	21.8	34.88	1.00	4.6	22	35	0.76	----	2.86	"	130-140
6.52	23.9	37.65	1.26	5.3	24	38	0.82	----	3.13	"	"
7.02	25.0	37.68	1.30	5.2	25	38	0.89	----	3.27	"	"
7.56	23.6	33.85	1.34	5.7	24	34	0.97	----	3.08	"	"
8.08	20.1	27.77	1.01	5.0	20	28	1.03	----	2.61	"	"
8.50	11.1	15.03	0.88	7.9	11	15	1.09	----	1.76	"	120-130
9.07	15.0	19.72	1.22	8.1	15	20	1.16	----	1.92	"	130-140
9.53	8.1	10.43	0.47	5.8	8	10	1.22	----	1.50	"	110-120
10.07	8.1	10.17	0.56	6.9	8	10	1.28	----	1.49	"	"
10.55	4.8	5.98	0.35	7.3	5	6	1.30	----	0.83	"	100-110
11.07	3.4	4.20	0.37	10.9	3	4	1.32	----	0.54	Organic Material	"
11.57	5.4	6.60	0.66	12.2	5	7	1.35	----	0.94	"	110-120
12.01	1.5	1.82	0.24	16.0	2	2	1.36	----	0.15	"	90-100
12.52	2.5	3.02	0.31	12.4	2	3	1.38	----	0.35	"	"
13.05	9.5	11.52	0.76	8.0	10	11	1.41	----	1.45	CLAY	120-130
13.52	5.5	6.49	0.45	8.2	6	6	1.44	----	0.93	"	110-120
14.02	4.5	5.27	0.37	8.2	4	5	1.46	----	0.73	Organic Material	100-110
14.50	4.6	5.34	0.40	8.7	5	5	1.48	----	0.74	"	"
15.01	4.3	4.94	0.46	10.7	4	5	1.50	----	0.68	"	"
15.54	4.9	5.59	0.38	7.8	5	6	1.52	----	0.79	CLAY	"
16.04	5.5	6.23	0.54	9.8	6	6	1.55	----	0.91	Organic Material	110-120
16.56	7.7	8.64	0.47	6.1	8	9	1.58	----	1.34	CLAY	"
17.04	12.0	13.36	0.34	2.8	8	9	1.60	----	1.46	Silty CLAY to CLAY	"
17.55	17.8	19.61	0.72	4.0	12	13	1.63	----	2.23	"	120-130
18.01	19.0	20.74	0.79	4.2	13	14	1.66	----	2.39	"	"
18.53	20.7	22.35	0.82	4.0	14	15	1.70	----	2.61	"	"
19.00	20.7	22.13	0.82	4.0	14	15	1.73	----	2.61	"	"
19.55	24.1	25.46	0.91	3.8	16	17	1.76	----	3.06	"	130-140
20.08	29.3	30.68	1.13	3.9	15	15	1.80	----	3.74	Clayey SILT to Silty CLAY	"
20.52	28.4	29.52	1.39	4.9	28	29	1.84	----	3.62	CLAY	"
21.04	25.9	26.69	1.28	4.9	26	27	1.87	----	3.28	"	"
21.54	22.4	22.89	0.95	4.2	15	15	1.91	----	2.81	Silty CLAY to CLAY	"
22.00	21.5	21.80	0.86	4.0	14	14	1.94	----	2.69	"	"
22.52	15.7	15.79	0.54	3.4	10	10	1.98	----	1.91	"	120-130
23.01	10.4	10.40	0.39	3.8	10	10	2.00	----	1.50	CLAY	110-120
23.53	10.1	10.09	0.32	3.2	7	7	2.03	----	1.44	Silty CLAY to CLAY	"
24.04	7.9	7.89	0.30	3.8	8	8	2.06	----	1.29	CLAY	"
24.57	9.9	9.88	0.67	6.8	10	10	2.09	----	1.40	"	120-130
25.07	7.6	7.58	0.28	3.7	8	7	2.11	----	1.22	"	100-110
25.51	5.4	5.39	0.21	3.9	5	5	2.13	----	0.77	"	"
26.04	5.2	5.18	0.25	4.8	5	5	2.15	----	0.73	"	"
26.56	7.4	7.37	0.16	2.2	5	5	2.17	----	1.16	Silty CLAY to CLAY	"
27.01	6.2	6.18	0.13	2.1	4	4	2.19	----	0.92	"	90-100

DESIGN COPY

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 50.0 feet

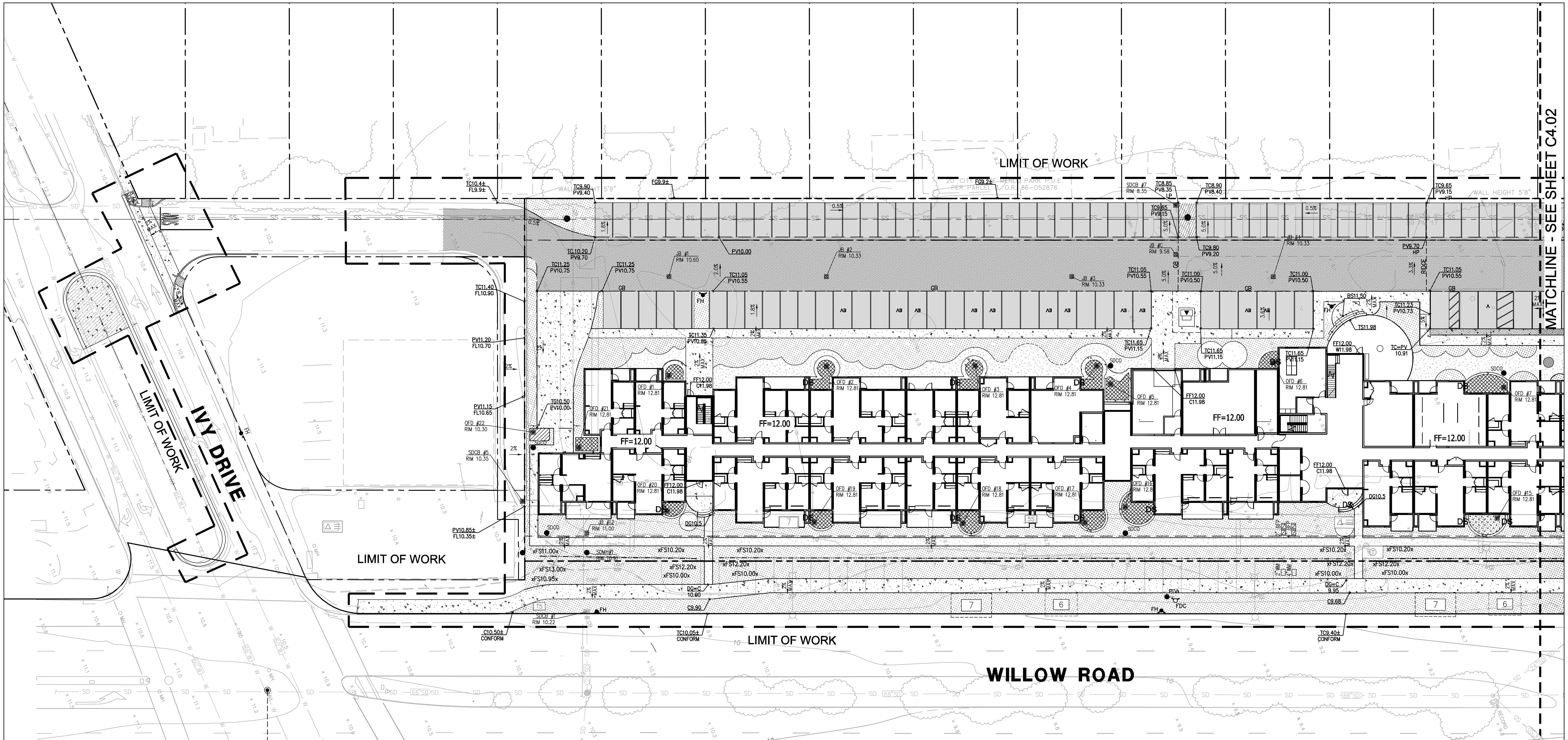
CPT NO.: CPT-6
DATE: 05-30-2013
TIME: 14:00:00
Groundwater measured at 10.5 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
27.57	8.5	8.46	0.20	2.4	6	6	2.21	----	1.37	Silty CLAY to CLAY	100-110
28.02	10.6	10.55	0.29	2.7	7	7	2.24	----	1.49	"	110-120
28.54	9.6	9.55	0.27	2.8	6	6	2.26	----	1.32	"	100-110
29.02	11.0	10.94	0.35	3.2	7	7	2.28	----	1.54	"	110-120
29.50	46.5	46.20	2.44	5.3	46	46	2.32	----	5.96	CLAY	130-140
30.04	88.3	87.67	3.89	4.4	88	88	2.36	----	11.53	Very Stiff Fine Grained *	"
30.58	173.0	171.65	1.46	0.8	35	34	2.39	>41	----	SAND	120-130
31.00	198.4	196.73	2.63	1.3	40	39	2.42	>42	----	"	130-140
31.56	231.1	228.99	2.42	1.1	46	46	2.46	>43	----	"	120-130
32.03	259.9	257.38	2.14	0.8	52	51	2.49	>43	----	"	"
32.56	249.0	244.55	3.17	1.3	50	49	2.52	>43	----	"	130-140
33.02	327.1	317.65	4.79	1.5	65	64	2.56	>45	----	"	"
33.53	332.4	318.68	3.87	1.2	66	64	2.59	>45	----	"	"
34.05	173.5	164.19	2.73	1.6	43	41	2.63	>41	----	SAND to Silty SAND	"
34.51	23.4	21.89	1.43	6.1	23	22	2.67	----	2.84	CLAY	"
35.02	5.7	5.29	0.34	6.0	6	5	2.69	----	0.72	"	100-110
35.57	4.7	4.33	0.20	4.3	5	4	2.71	----	0.51	"	90-100
36.06	3.8	3.48	0.21	5.5	4	3	2.72	----	0.33	"	"
36.56	8.0	7.27	0.35	4.4	8	7	2.75	----	1.16	"	110-120
37.08	14.5	13.02	0.46	3.2	10	9	2.78	----	1.64	Silty CLAY to CLAY	120-130
37.51	14.9	13.24	0.51	3.4	10	9	2.81	----	1.69	"	"
38.07	14.2	12.45	0.50	3.5	9	8	2.84	----	1.59	"	"
38.54	9.4	8.17	0.34	3.6	9	8	2.87	----	1.18	CLAY	110-120
39.03	8.4	7.23	0.36	4.3	8	7	2.89	----	1.21	"	"
39.57	12.0	10.19	0.47	3.9	12	10	2.93	----	1.28	"	120-130
40.04	21.0	17.63	0.71	3.4	11	9	2.96	----	2.48	Clayey SILT to Silty CLAY	"
40.53	12.4	10.29	0.61	4.9	12	10	2.99	----	1.33	CLAY	"
41.03	14.0	11.52	0.52	3.7	9	8	3.02	----	1.54	Silty CLAY to CLAY	"
41.56	10.3	8.44	0.44	4.3	10	8	3.05	----	1.30	CLAY	110-120
42.06	10.7	8.74	0.43	4.0	11	9	3.07	----	1.36	"	"
42.57	10.2	8.30	0.40	3.9	10	8	3.10	----	1.27	"	"
43.04	10.5	8.51	0.36	3.4	7	6	3.12	----	1.32	Silty CLAY to CLAY	"
43.51	11.6	9.37	0.42	3.6	8	6	3.15	----	1.50	"	"
44.03	10.7	8.61	0.45	4.2	11	9	3.18	----	1.34	CLAY	"
44.56	15.8	12.66	0.61	3.9	10	8	3.21	----	1.75	Silty CLAY to CLAY	120-130
45.07	19.8	15.79	0.62	3.1	10	8	3.24	----	2.28	Clayey SILT to Silty CLAY	"
45.55	15.0	11.91	0.55	3.7	10	8	3.27	----	1.63	Silty CLAY to CLAY	"
46.00	10.6	8.39	0.39	3.7	10	8	3.29	----	1.31	CLAY	110-120
46.57	11.4	8.98	0.44	3.9	11	9	3.32	----	1.43	"	"
47.01	11.6	9.10	0.49	4.2	11	9	3.35	----	1.46	"	120-130
47.10	12.0	9.41	0.47	3.9	12	9	3.36	----	1.22	"	"
47.53	11.3	8.82	0.55	4.9	11	9	3.38	----	1.41	"	"
48.08	11.9	9.24	0.47	4.0	12	9	3.42	----	1.50	"	"
48.56	10.5	8.13	0.49	4.7	10	8	3.44	----	1.26	"	110-120
49.08	12.4	9.55	0.45	3.6	8	6	3.48	----	1.26	Silty CLAY to CLAY	120-130
49.54	10.4	7.98	0.39	3.8	10	8	3.50	----	1.24	CLAY	110-120
50.08	10.3	7.89	0.00	0.0	5	4	3.51	----	1.22	Sensitive Fine Grained	<80

DESIGN COPY

DEPTH = Sampling interval (~0.1 feet)
Qc = Tip bearing uncorrected Qt = Tip bearing corrected Fs = Sleeve friction resistance Rf = Qt / Fs
SPT = Equivalent Standard Penetration Test Qt' and SPT' = Qt and SPT corrected for overburden
EffVtStr = Effective Vertical Stress using est. density** Phi = Soil friction angle*
Su = Undrained Soil Strength* (see classification chart)
References: * Robertson and Campanella, 1988 **Olsen, 1989 *** Durgunoglu & Mitchell, 1975



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MENLO PARK, CA
PREPARED FOR
MIDPEN HOUSING

SUBMISSION
R4S ZONING COMPLIANCE RESUBMITTAL

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

CONSTRUCTION KEY NOTES

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BS	BOTTOM OF STEP
C	CONCRETE
DN	DOWN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
GB	GRADE BREAK
L/S	LANDSCAPE
N.T.S.	NOT TO SCALE
O.R.	OFFICIAL RECORD
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PV	PAVEMENT
RD	ROAD
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
S/W	SIDEWALK
TC	TOP OF CURB
TS	TOP OF STEP
W	WOOD

SHEET NOTES

1. PER CALIFORNIA BUILDING CODE (CBC) §1804.A3 REQUIRES A MINIMUM 5% SLOPE ON LANDSCAPE, AND 2% SLOPE ON PAVEMENT WITHIN 10 FEET OF THE BUILDING UNLESS INTERCEPTED BY A SWALE.
2. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ALL DIRECTIONS. ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 5% IN THE DIRECTION OF TRAVEL AND THE SLOPE CROSSWAYS TO THE DIRECTION OF TRAVEL SHALL BE AT A MAXIMUM OF 2%. ANY ACCESSIBLE PATHS THAT SLOPE MORE THAN 5% SHALL HAVE A HANDRAIL UP TO 8.33%. NO ACCESSIBLE PATHS SHALL SLOPE GREATER THAN 8.33%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER/ARCHITECT PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK, FORM WORK AND/OR FLATWORK.
3. SEE CURB RAMP DETAILS ON SHEET C7.01
4. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT ARE IN CONTACT WITH EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD PER CBC 2304.12.1.2.

FEMA STATEMENT

THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.

LEGEND

PROJECT PROPERTY LINE
ADJACENT PROPERTY LINES
CALTRANS RIGHT OF WAY
LOT LINES
EASEMENT LINE
CENTER LINE
MONUMENT LINE
LIMIT OF WORK
PROPOSED SIGNAGE
OVERLAND RELEASE

TRUE NORTH

NORTH

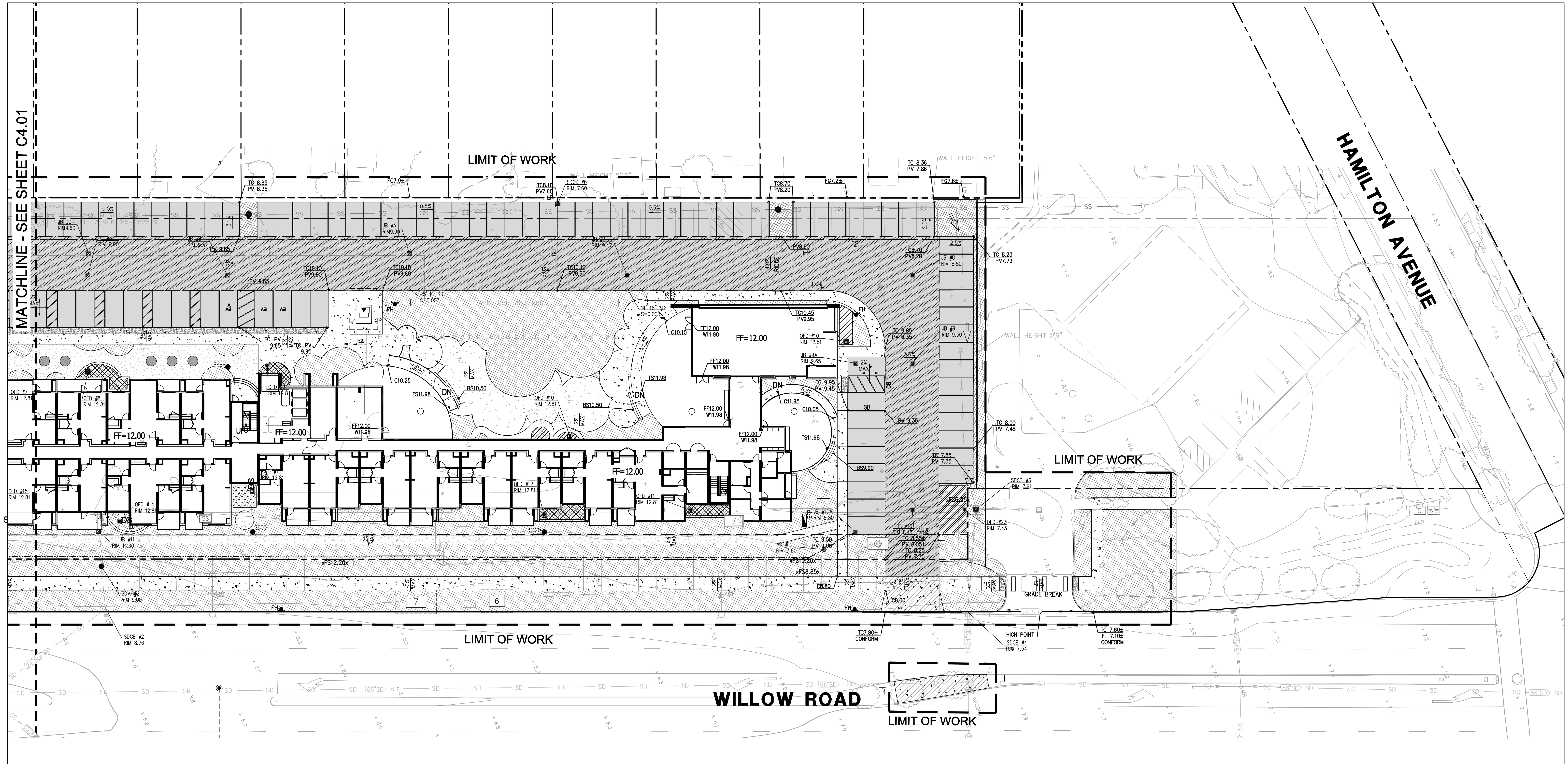
GRAPHIC SCALE

20 0 20 40
SCALE: 1"=20'

TITLE
PRELIMINARY GRADING PLAN
PROJECT NO.
20156154
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C4.01

NOT FOR CONSTRUCTION



CONSTRUCTION KEY NOTES

ABBREVIATIONS

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BS	BOTTOM OF STEP
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PV	PAVEMENT
RD	ROAD
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SS	SANITARY SEWER
S/W	SIDEWALK
TC	TOP OF CURB
TS	TOP OF STEP
W	WOOD

SHEET NOTES

1. PER CALIFORNIA BUILDING CODE (CBC) §1804.A3 REQUIRES A MINIMUM 5% SLOPE ON LANDSCAPE, AND 2% SLOPE ON PAVEMENT WITHIN 10 FEET OF THE BUILDING UNLESS INTERCEPTED BY A SWALE.
2. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ALL DIRECTIONS. ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 5% IN THE DIRECTION OF TRAVEL AND THE SLOPE CROSSWAYS TO THE DIRECTION OF TRAVEL SHALL BE AT A MAXIMUM OF 2%. ANY ACCESSIBLE PATHS THAT SLOPE MORE THAN 5% SHALL HAVE A HANDRAIL UP TO 8.33%. NO ACCESSIBLE PATHS SHALL SLOPE GREATER THAN 8.33%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER/ARCHITECT PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK, FORM WORK AND/OR FLATWORK.
3. SEE CURB RAMP DETAILS ON SHEET C7.01
4. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT ARE IN CONTACT WITH EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD PER CBC 2304.12.1.2.

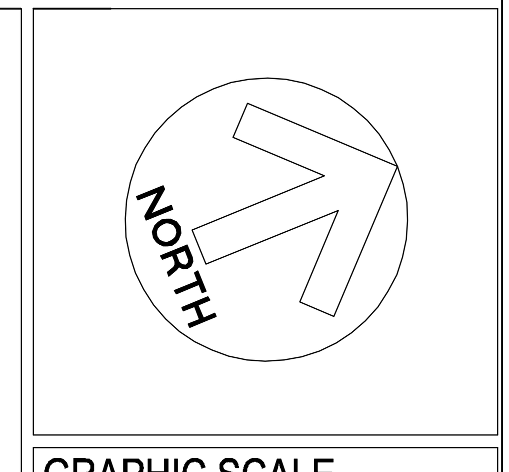
FEMA STATEMENT

THIS PROPERTY IS LOCATED WITHIN ZONE AE AS SHOWN IN FLOOD INSURANCE RATE MAP NO. 06081C0307E, DATED MAY 5, 2019.

LEGEND

- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINES
- CALTRANS RIGHT OF WAY
- LOT LINES
- EASEMENT LINE
- CENTER LINE
- MONUMENT LINE
- LIMIT OF WORK
- PROPOSED SIGNAGE
- OVERLAND RELEASE

TRUE NORTH



GRAPHIC SCALE

20 0 20 40

SCALE: 1"=20'

NOT FOR CONSTRUCTION

ORIGINAL SHEET SIZE 30" x 42"

DRAWING NAME: K:\2015\156154_1300_Willow_Rd_Gateway_Fam\ENG\PLANNING\SHEETS\R4S\05-1300W-R4SGRAD.dwg
PLOT TIME: 02-25-19
PLOTTED BY: pria

MITHŪN

SEATTLE / Pier 56, 1201 Alaskan Way, #200
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PROJECT
GATEWAY FAMILY HOUSING

LOCATION
1345 WILLOW ROAD
MENLO PARK, CA

PREPARED FOR
MIDPEN HOUSING

MidPen HOUSING

KEYMAP

SUBMISSION

R4S ZONING COMPLIANCE RESUBMITTAL

NO.	DATE	REVISION

PRINCIPAL
JACOB NGUYEN
PROJECT MANAGER
COLE GAUMNITZ
PROJECT ENGINEER

PROJECT TEAM MEMBERS
-
CHECK

ENGINEER SEAL

TITLE
PRELIMINARY GRADING PLAN

PROJECT NO.
20156154

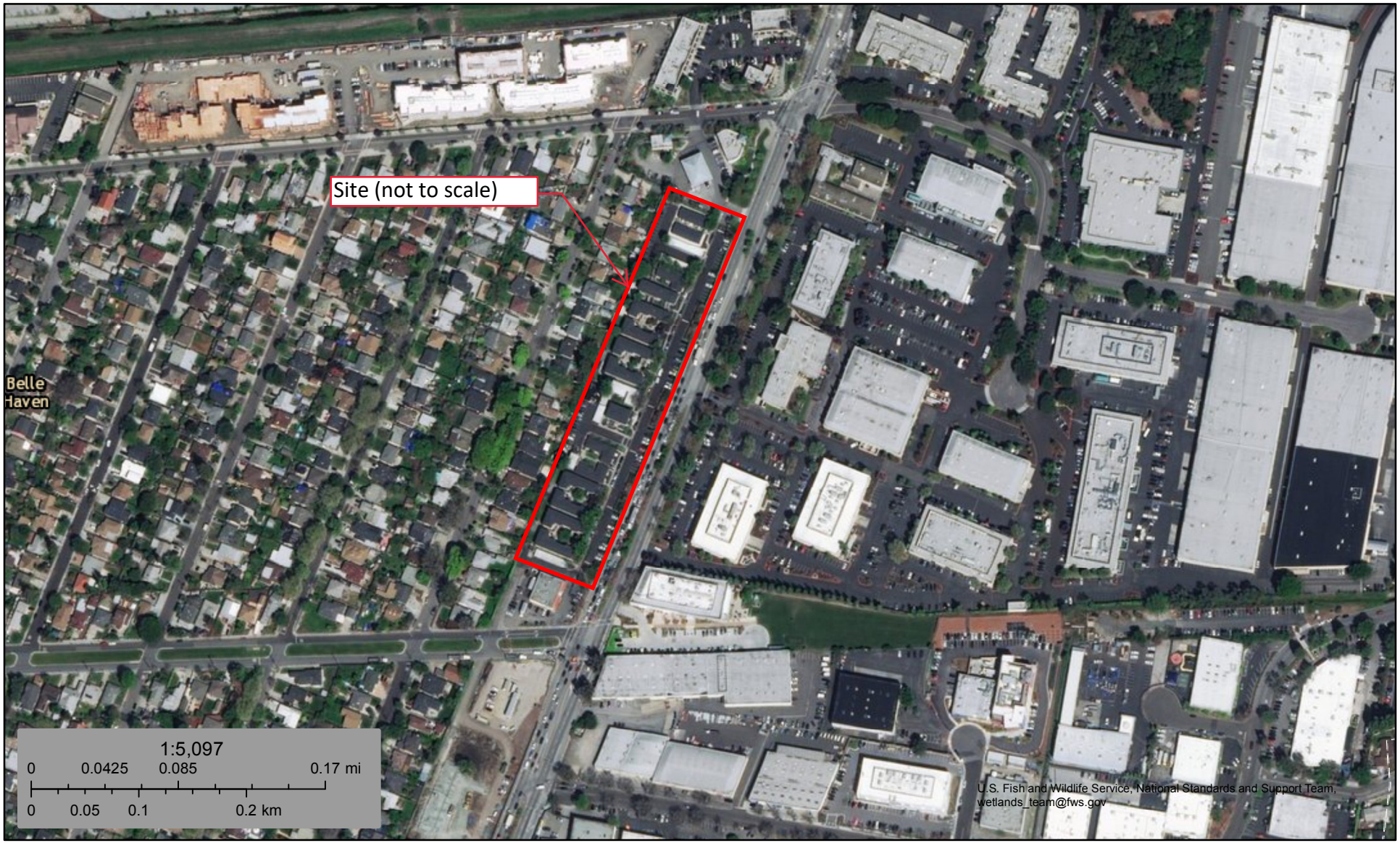
DATE
FEBRUARY 22, 2019

SHEET NUMBER
C4.02

U.S. Fish and Wildlife Service

National Wetlands Inventory

Gateway Family Housing



May 27, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2019-SLI-1976
Event Code: 08ESMF00-2019-E-06307
Project Name: Gateway Family Housing

May 20, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-1976

Event Code: 08ESMF00-2019-E-06307

Project Name: Gateway Family Housing

Project Type: DEVELOPMENT

Project Description: The project is redevelopment of an existing affordable housing project site at a higher density. A net increase of 58 affordable housing units will be achieved by implementing the project. The subject property is 2.96 acres in size and currently improved with 82 apartments in 17 buildings with parking and amenities to be demolished. The project will then construct 140 units and 177 parking spaces.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.477796114295856N122.15243536419484W

Counties: San Mateo, CA

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse *Reithrodontomys raviventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
San Francisco Garter Snake *Thamnophis sirtalis tetrataenia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5956	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Bay Checkerspot Butterfly *Euphydryas editha bayensis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2320	Threatened
San Bruno Elfin Butterfly *Callophrys mossii bayensis* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
Fountain Thistle *Cirsium fontinale var. fontinale* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7939	Endangered
Marin Dwarf-flax *Hesperolinon congestum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5363	Threatened
San Mateo Thornmint *Acanthomintha obovata ssp. duttonii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2038	Endangered
Showy Indian Clover *Trifolium amoenum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Arborist Report

Gateway 1300
Menlo Park, CA

Prepared for:
MidPeninsula Housing Corporation
303 Vintage Park Dr. Ste. 250
Foster City, CA 94404

Prepared by:
HortScience, Inc.
325 Ray St.
Pleasanton, CA 94566

Tree Inventory: October 26, 2015
Updated Arborist Report: July 18, 2018

HORT SCIENCE
BARTLETT CONSULTING

Arborist Report
Gateway 1300, Menlo Park

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Exhibits

Tree Assessment

Tree Inventory Map

Arborist Report
Gateway 1300, Menlo Park

Introduction and Overview
The MidPeninsula Housing Corporation is planning to redevelop the properties located on the 1300 block of Willow Rd. in Menlo Park, CA. The site contains rental housing with associated parking and landscaping. The proposed project would redevelop the site into a multi-level residential complex. HortScience | Bartlett Consulting was asked to prepare an **Arborist Report** for the site as part of the development submittal for review by the City of Menlo Park.

This report provides the following information:

1. An assessment of trees within and immediately adjacent to the proposed project area based on a visual inspection from the ground.
2. Guidelines for tree preservation during the design, construction, and maintenance phases of development.

Assessment Methods
Trees were evaluated on October 7, 2015. The evaluation included all trees on the site and several off-site trees with portions of their crowns overhanging the property. The assessment procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54" above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
   - ***5*** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
   - ***4*** - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
   - ***3*** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
   - ***2*** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
   - ***1*** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated;
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

   High: Trees with good health and structural stability that have the potential for longevity at the site.

   Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'High' category.

   Low: Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

Sixty-one (61) trees were evaluated, representing 10 species (Table 1), including 12 street trees and one off-site tree (#49). Descriptions of each tree are found in the ***Tree Assessment*** and locations are plotted on the ***Tree Inventory Map*** (see Exhibits).

Table 1. Tree condition & frequency of occurrence
1300 Block of Willow Rd., Menlo Park

Common name	Scientific name	Condition rating			No. of trees
		Poor (1-2)	Fair (3)	Good (4-5)	
White alder	*Alnus rhombifolia*	-	3	2	**5**
Raywood ash	*Fraxinus angustifolia 'Raywood'*	5	16	5	**26**
Modesto ash	*Fraxinus velutina 'Modesto'*	-	1	-	**1**
California black walnut*	*Juglans hindsii*	1	-	-	**1**
London plane*	*Platanus x hispanica*	-	7	5	**12**
Purpleleaf plum	*Prunus cerasifera*	-	-	3	**3**
Japanese flowering cherry	*Prunus serrulata*	1	2	-	**3**
Callery pear	*Pyrus calleryana*	-	8	-	**8**
Pear	*Pyrus communis*	-	1	-	**1**
African sumac	*Rhus lancea*	-	1	-	**1**
*off-site or street tree					
Total		**7**	**39**	**15**	**61**
		11%	64%	25%	100%

All of the trees on the site were planted ornamental species. Although California black walnut and white alder are native to California, they were not indigenous to this site. Trees ranged in age from young to mature. The smallest tree was 4 inches in diameter; the largest, 31 inches. Average trunk diameter was 12 inches. Tree condition varied: 25% were in good condition; 64% were fair, and 11% were in poor condition.

Raywood ash was the most common species evaluated, with 26 trees representing 43% of the population. Raywood ash trees were mostly on the east side of buildings and at the north end of the site. They were generally in fair condition (16 trees) with five in good condition and five in poor condition. The trees were semi-mature (8” diameter) to mature (20”) with an average diameter of 14”. Raywood ashes had codominant trunks or multiple branch attachments, which is typical for the species. The trees tended to have large surface roots spreading through the landscape. Trees in fair condition had twig and/or small branch dieback (Photo 1). Branch dieback in Raywood ash is often caused by the fungus *Botryosphaeria*. It is a pervasive disease throughout California, and there is no control available other than ensuring adequate irrigation and pruning to remove dead branches.

Eight Callery pears were scattered throughout the site. All trees were in fair condition, and most had multiple branch attachments arising from a single point, a structural condition that may lead to branch failure. The trees were semi-mature in development, with trunk diameters from 8 to 12 inches. Many of the trees canopies were beginning to thin.

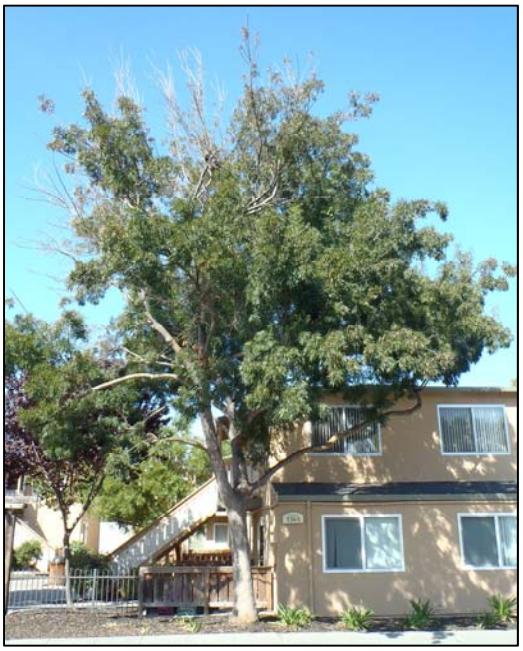

Photo 1 (top left): Raywood ash #29 had branch dieback in the upper crown, most likely due to disease caused by *Botryosphaeria*. Most Raywood ashes evaluated had similar degrees of crown dieback.

Photo 2 (top right): White alder #42 was in good condition with good form and dense crown.

Five white alders were growing at the rear of several buildings. Trees were semi-mature to mature with trunk diameters from 15 to 31 inches. Trees were in good and fair condition. Those in good condition had good form with dense crowns (Photo 2); trees in fair condition had fair form and structure but were otherwise vigorous.

Twelve (12) London planes were included in the assessment. They were located east of the sound wall between the frontage road and Willow Road on City property. Trees were young to semi-mature with trunk diameters from 4 to 9 inches. Trees were in good (5 trees) and fair (7 trees) condition, with those in fair condition exhibiting more twig dieback and thin crowns than trees in good condition.

The remaining species were represented by three or fewer trees and included the following.

- Three purpleleaf plums in good condition and three Japanese flowering cherries in fair condition.
- One each of Modesto ash, edible pear, and African sumac in fair condition.
- One off-site California black walnut in poor condition, with canopy extending over the site 15 feet.

The City of Menlo Park considers oaks 10” and greater and all trees 15” and greater *Heritage*. Seventeen (17) trees on-site were *Heritage*: Raywood ashes #1, 6, 11, 13, 16, 25, 29, 31, 32, 35, and 37; white alders #42, 45-48, and Modesto ash #21. Off-site California black walnut #49 was also *Heritage*.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in open fields, away from areas where people and property are present, structural defects and/or poor health presents a low risk of damage or injury if they fail. However, we must be concerned about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure and death should be allowed to continue.
Evaluation of suitability for preservation considers several factors:

- **Tree health**
  Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.

- **Structural integrity**
  Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Trees with stem and branch dieback, such as Raywood ash #23, are likely to fail.

- **Species response**
  There is a wide variation in the response of individual species to construction impacts and changes in the environment. In our experience, for example, Raywood ash is relatively sensitive to construction impacts, while London plane is more tolerant of site disturbance.

- **Tree age and longevity**
  Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.

- **Invasiveness**
  Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (http://www.cal-ipc.org/paf/) lists species identified as being invasive. Menlo Park is part of the Central West Floristic Province. Purpleleaf plum is considered limited invasive.
  Limited is defined as “these species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.”

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (Table 2).

We consider trees with good suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Table 2. Suitability for preservation
1300 Block of Willow Rd., Menlo Park

High	These are trees with good health and structural stability that have the potential for longevity at the site. Eight trees were of high suitability for preservation, including five (street tree) London planes, two Raywood ashes, and one white alder.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the "high" category. Thirty-six (36) trees had moderate suitability for preservation, including 10 Raywood ashes, seven (street tree) London planes, six Callery pears, four white alders, three purpleleaf plums, two Japanese flowering cherries, and one African sumac.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. Seventeen (17) trees were of low suitability for preservation, including 14 Raywood ashes, two Callery pears, and one each of Japanese flowering cherry, pear, Modesto ash, and (off-site) California black walnut.

Evaluation of Impacts and Recommendations

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The ***Tree Assessment*** was the reference point for tree condition and quality. Potential impacts from construction were evaluated using the civil sheets prepared by BKF (dated 7/10/18).

Surveyed tree locations were included for on-site trees but not for street trees.

The development proposes to demolish existing buildings and infrastructure across the entire site and construct approximately 140 new multi-family residences with new parking and vehicle circulation. Impacts to trees will be most significant during site demolition, grading, and construction of new buildings. Because the new building clusters will be closer to Willow Rd. than existing buildings, many of the trees will be within the new building footprints and require removal.

Thirty-seven (37) trees will be directly impacted by construction, including 14 Heritage trees. Three trees had high suitability for preservation, 21 were moderate, and 13 were low.

In addition to trees directly impacted by construction, trees rated with a "low" suitability for preservation should be removed regardless of impacts. Based on this criterion, six on-site trees are recommended for removal, including one *Heritage* tree (#37). One off-site Heritage tree (#49) whose canopy extends over the site is dead and a significant portion of the crown will be removed to accommodate construction.

Table 3 identifies trees recommended for removal with reasons for removal.

Table 3. Trees Identified for removal
1300 Block of Willow Rd., Menlo Park

Tag #	Species	Diameter	Reason for removal
1	Raywood ash	**15**	Within bldg. footprint; low suit.
3	Raywood ash	10	Low suit. for preservation
5	Raywood ash	13	Within bldg. footprint
6	Raywood ash	**18**	Within bldg. footprint
7	Purpleleaf plum	6	Within bldg. footprint
8	Callery pear	12	Within bldg. footprint
9	Raywood ash	8	Within bldg. footprint
10	Raywood ash	12	Within bldg. footprint
11	Raywood ash	**18**	Within bldg. footprint
12	Raywood ash	12	Within bldg. footprint
13	Raywood ash	**15**	Within bldg. footprint
14	Purpleleaf plum	6	Within bldg. footprint
15	Callery pear	12	Within bldg. footprint
16	Raywood ash	**20**	Within bldg. footprint
17	Pear	7	Low suit. for preservation
18	Jap. flowering cherry	6	Within bldg. footprint; low suit.
19	Jap. flowering cherry	6	Within bldg. footprint
20	Jap. flowering cherry	6	Half of crown will be removed for vehicle clearance
21	Modesto ash	**24**	Within bldg. footprint; low suit.
22	Raywood ash	13	Within bldg. footprint; low suit.
23	Raywood ash	12	Within bldg. footprint; low suit.
24	Callery pear	8	Within bldg. footprint
25	Raywood ash	**20**	Within bldg. footprint; low suit.
26	Raywood ash	14	Within bldg. footprint; low suit.
27	Purpleleaf plum	6	Within bldg. footprint
28	African sumac	7	Within bldg. footprint
29	Raywood ash	**17**	Within bldg. footprint; low suit.
30	Raywood ash	14	Within bldg. footprint; low suit.
31	Raywood ash	**16**	Within bldg. footprint
32	Raywood ash	**16**	Within bldg. footprint
33	Callery pear	12	Within parking/drive aisle
34	Callery pear	10	Within parking/drive aisle
35	Raywood ash	**15**	Within parking/drive aisle; low suit.
37	Raywood ash	**17**	Low suit. for preservation
38	Raywood ash	13	Low suit. for preservation
39	Raywood ash	14	Low suit. for preservation
40	Raywood ash	11	Low suit. for preservation
41	Raywood ash	13	Within bldg. footprint; low suit.
42	White alder	**31**	Within parking/drive aisle
43	Callery pear	11	Within parking/drive aisle; low suit.
44	Callery pear	11	Within parking/drive aisle; low suit.
45	White alder	**19**	Within parking/drive aisle
48	White alder	**27**	Within parking/drive aisle
49	California black walnut	**22,18**	Dead (off site)

Five onsite trees will be preserved. All were in fair condition, and two (#46 & 47) were Heritage (Table 4).

Twelve street trees (London planes) can be preserved. The proposed sidewalk should be kept at least 36" from trunks. Tree #50 had a significant lean over the sound wall and should be considered for removal and replacement. Root impacts will occur to street trees during sidewalk construction. Because street trees were not surveyed, removal recommendations could not be made.

Table 4. Trees Identified for preservation
1300 Block of Willow Rd., Menlo Park

Tag #	Species	Diameter
2	Raywood ash	12
4	Raywood ash	9
36	Callery pear	11
46	White alder	**15**
47	White alder	**18**
50	London plane	7
51	London plane	8
52	London plane	7
53	London plane	7
54	London plane	7
55	London plane	7
56	London plane	6
57	London plane	6
58	London plane	4
59	London plane	8
60	London plane	7
61	London plane	9

Preservation is predicated on following the ***Tree Preservation Guidelines*** provided in the next section.

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are either subject to extensive injury during construction or are inadequately maintained become a liability rather than an asset. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods.

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading, and construction phases.

Design recommendations

1. Design the sidewalk along Willow Rd. so that excavation occurs no closer than 36" from nearby trees.
2. Any changes to the plans affecting the trees shall be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, demolition plans, site plans, improvement plans, utility and drainage plans, grading plans, and landscape and irrigation plans.

3. A **TREE PROTECTION ZONE** (**TPZ**) shall be established around each tree to be preserved. No grading, excavation, construction or storage of materials shall occur within that zone. The **TPZ** is typically defined by the dripline or, if pavements are within the dripline, the edge of the planting area. The arborist may define a smaller **TPZ** in cases where access is necessary.
4. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**.
5. Irrigation systems must be designed so that no trenching will occur within the **TREE PROTECTION ZONE**.

Pre-construction treatments and recommendations

1. Fence all trees to be retained to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link or equivalent as approved by the Consulting Arborist or the City of Menlo Park. Fences are to remain until all grading and construction is completed.
2. Trees may require pruning to provide construction clearance. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture. Brush shall be chipped and spread beneath the trees within the **TREE PROTECTION ZONE.**
3. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by construction contractors. The qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain. Tree stumps shall be ground 12” below ground surface.
4. Structures and underground features to be removed within the Tree Protection Zone shall use equipment that will minimize damage to trees above and below ground, and operate from outside the Tree Protection Zone. Tie back branches and wrap trunks with protective materials to protect from injury as directed by the Project arborist. The Project arborist shall be on-site during all operations within the Tree Protection Zone to monitor demolition activity.
5. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible, tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Recommendations for tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved.
3. Trenching for utility installation or any excavation within the **TREE PROTECTION ZONE** should be performed by hand. Roots 2” and greater in diameter should be preserved whenever possible.

4. Any grading, construction, demolition, or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.
5. All trees shall be irrigated on a schedule to be determined by the Consulting Arborist (every 3 to 6 weeks is typical). Each irrigation shall wet the soil within the **TREE PROTECTION ZONE** to a depth of 30".
6. Tree protection fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Consulting Arborist.
7. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.
8. Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the Consulting Arborist.
9. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
10. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.
11. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.

Maintenance of impacted trees
Trees preserved at the 1300 Gateway site will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of branches or entire trees failing will increase. Therefore, annual inspection for hazard potential is recommended.

If you have any questions regarding my observations or recommendations, please contact me.

HortScience, Inc.

Deanne Ecklund
ASCA Registered Consulting Arborist #647

Exhibits

Tree Inventory Map

Tree Assessment

HORT SCIENCE
BARTLETT CONSULTING

Tree Inventory Map

1300 Block Willow Rd
Menlo Park, CA

Prepared for:
MidPen Housing

October 2015

Notes:
1. Tree locations are approximate.

2. Aerial image provided by ESRI.

Legend

- Trees

HORT SCIENCE
325 Ray Street
Pleasanton, CA 94566
Phone (925) 484-0211
Fax (925) 484-0596

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Tree Assessment

1300 Block Willow Road
Menlo Park, California
October 2015

HORT SCIENCE

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	HERITAGE?	SUITABILITY FOR PRESERVATION	COMMENTS
1	Raywood ash	15	2	Yes	Low	Multiple attachments at 9'; twig and branch dieback; thin crown; *Botryosphaeria.*
2	Raywood ash	12	3	No	Moderate	Multiple attachments at 7'; good form, fair structure; twig dieback.
3	Raywood ash	10	3	No	Low	Codominant trunks at 8'; good form, fair structure; twig dieback.
4	Raywood ash	9	3	No	Moderate	Codominant trunks at 8'; good form, fair structure; twig dieback.
5	Raywood ash	13	3	No	Moderate	Corrected lean south; twig dieback; crowded by adjacent tree.
6	Raywood ash	18	4	Yes	High	Good form and structure; codominant trunks at 9'; dense crown; surface roots.
7	Purpleleaf plum	6	4	No	Moderate	Multiple attachments at 7'; good form and structure; dense crown; surface roots.
8	Callery pear	12	3	No	Moderate	Multiple attachments at 6'; good form, fair structure; slightly thin crown; trunk wounds.
9	Raywood ash	8	3	No	Moderate	Good form and structure; large trunk wounds; surface roots.
10	Raywood ash	12	4	No	Moderate	Codominant trunks at 8'; minor twig dieback; asymmetrical crown; crowded by tree #11.
11	Raywood ash	18	4	Yes	High	Multiple attachments at 8'; good form; minor twig dieback; drain inlet, water, PacBell utilities near base.
12	Raywood ash	12	4	No	Moderate	Codominant trunks at 12'; crowded form; dense crown.
13	Raywood ash	15	3	Yes	Moderate	Codominant trunks at 8' and 11'; fair form and structure; minor twig dieback; large trunk wound.
14	Purpleleaf plum	6	4	No	Moderate	Codominant trunks at 7'; good form and structure; dense crown.
15	Callery pear	12	3	No	Moderate	Multiple attachments at 6'; poor structure; thinning crown.
16	Raywood ash	20	3	Yes	Moderate	Codominant trunks at 10' and 14'; fair form and structure; twig and branch dieback in upper crown.
17	Pear	7	3	No	Low	Multiple attachments at 6'; twig dieback; water sprouts.
18	Japanese flowering cherry	6	2	No	Low	Multiple attachments at 4'; thin crown; twig dieback.
19	Japanese flowering cherry	6	3	No	Moderate	Multiple attachments at 4'; slightly thin crown.
20	Japanese flowering cherry	6	3	No	Moderate	Multiple attachments at 4'; slightly thin crown.
21	Modesto ash	24	3	Yes	Low	Multiple attachments at 10'; fair form, poor structure; spreading crown; twig dieback.

Tree Assessment

1300 Block Willow Road
Menlo Park, California
October 2015

HORT SCIENCE

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	HERITAGE?	SUITABILITY FOR PRESERVATION	COMMENTS
22	Raywood ash	13	3	No	Low	Multiple attachments at 9'; poor form and structure; dense crown; PG&E vault 5' from base.
23	Raywood ash	12	2	No	Low	Codominant trunks at 8'; asymmetrical crown; dieback in stem; possible girdling root..
24	Callery pear	8	3	No	Moderate	Multiple attachments at 6'; fair structure; slightly thin crown.
25	Raywood ash	20	3	Yes	Low	Multiple attachments at 10'; interior stem removed creating asymmetrical crown; twig and branch dieback.
26	Raywood ash	14	2	No	Low	Codominant trunks at 16'; previous codominant stem removed at 8'; twig and branch dieback; poor form.
27	Purpleleaf plum	6	4	No	Moderate	Multiple attachments at 7'; good form; dense crown.
28	African sumac	7	3	No	Moderate	Codominant trunks at 8'; good form, fair structure; dense crown.
29	Raywood ash	17	3	Yes	Low	Codominant trunks at 8'; south stem beginning to decline; twig and branch dieback.
30	Raywood ash	14	3	No	Low	Multiple attachments at 8'; slightly thin crown; twig dieback.
31	Raywood ash	16	3	Yes	Moderate	Multiple attachments at 8'; fair form and structure; minor twig dieback; trunk wound; PacBell vault 2' from base.
32	Raywood ash	16	4	Yes	Moderate	Multiple attachments at 9' good form, fair structure; dense crown; in narrow planter.
33	Callery pear	12	3	No	Moderate	Multiple attachments at 6'; poor structure; corrected lean south; slightly thin crown.
34	Callery pear	10	3	No	Moderate	Multiple attachments at 6'; slightly thin crown; water meter 2' from base.
35	Raywood ash	15	2	Yes	Low	Multiple attachments at 10'; thin crown; twig and branch dieback.
36	Callery pear	11	3	No	Moderate	Multiple attachments at 7'; poor structure; good form; in narrow planter.
37	Raywood ash	17	2	Yes	Low	Multiple attachments at 8'; very thin crown; in narrow planter.
38	Raywood ash	13	3	No	Low	Multiple attachments at 9'; slightly thin crown; twig dieback.
39	Raywood ash	14	3	No	Low	Codominant trunks at 9'; fair form and structure; twig dieback.
40	Raywood ash	11	3	No	Low	Multiple attachments at 9'; asymmetrical crown; twig dieback.
41	Raywood ash	13	3	No	Low	Multiple attachments at 8'; corrected lean south; slightly thin crown; twig dieback.

Tree Assessment

1300 Block Willow Road
Menlo Park, California
October 2015

HORT SCIENCE

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	HERITAGE?	SUITABILITY FOR PRESERVATION	COMMENTS
42	White alder	31	4	Yes	High	Codominant trunks at 7'; good form; spreading crown; base covered in ivy.
43	Callery pear	11	3	No	Low	Multiple attachments at 6'; asymmetrical form; pruned for building clearance; cable girdling stem.
44	Callery pear	11	3	No	Low	Multiple attachments at 6'; asymmetrical form; pruned for building clearance.
45	White alder	19	3	Yes	Moderate	Fair form and structure; codominant trunks hic; trunk wound; slight lean away from building.
46	White alder	15	3	Yes	Moderate	Codominant trunks at 15'; fair form and structure; asymmetrical crown.
47	White alder	18	3	Yes	Moderate	Codominant trunks at 8'; good form, fair structure; surface roots.
48	White alder	27	4	Yes	Moderate	Codominant trunks at 10'; good form, fair structure; dense crown; base covered in ivy.
49	California black walnut	22,18	1	Yes	Low	Off site; codominant trunks at 5'; mostly dead; overhanging site
50	London plane	7	3	No	Moderate	Street tree; multiple attachments at 7'; small, slightly thin crown; heavy lateral limb over Willow Rd.
51	London plane	8	4	No	High	Street tree; multiple attachments at 8'; minor twig dieback.
52	London plane	7	3	No	Moderate	Street tree; multiple attachments at 8'; slightly thin crown; minor twig dieback.
53	London plane	7	3	No	Moderate	Street tree; asymmetrical crown; minor twig dieback.
54	London plane	7	4	No	High	Street tree; good form and structure; corrected lean.
55	London plane	7	4	No	High	Street tree; codominant trunks at 7'; minor twig dieback; corrected lean.
56	London plane	6	3	No	Moderate	Street tree; multiple attachments at 7'; slightly thin crown; twig dieback.
57	London plane	6	4	No	High	Street tree; multiple attachments at 7'; good form; minor twig
58	London plane	4	3	No	Moderate	Street tree; small crown.
59	London plane	8	4	No	High	Street tree; multiple attachments at 8'; good form; minor twig
60	London plane	7	3	No	Moderate	Street tree; multiple attachments at 8'; minor twig dieback.
61	London plane	9	3	No	Moderate	Street tree; multiple attachments at 8'; slightly thin crown; twig dieback.

Appendix D – Air Quality

- Crake, Cinnamon. *CalEEMod Greenhouse Gas Modeling - Gateway Family Housing.* s.l. : California Air Pollution Control Officers Association (CAPCOA), May 13, 2019. Model Version 2016.3.2.

Gateway Family Housing

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	140.00	Dwelling Unit	2.96	140,000.00	400

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Actual site area used.

Construction Phase -

Demolition -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	5/21/2020	1/11/2021
tblConstructionPhase	PhaseEndDate	4/23/2020	12/14/2020
tblConstructionPhase	PhaseEndDate	6/7/2019	1/28/2020
tblConstructionPhase	PhaseEndDate	6/20/2019	2/10/2020
tblConstructionPhase	PhaseEndDate	5/7/2020	12/28/2020
tblConstructionPhase	PhaseEndDate	6/12/2019	1/31/2020
tblConstructionPhase	PhaseStartDate	5/8/2020	12/29/2020
tblConstructionPhase	PhaseStartDate	6/21/2019	2/11/2020
tblConstructionPhase	PhaseStartDate	5/13/2019	1/1/2020
tblConstructionPhase	PhaseStartDate	6/13/2019	2/3/2020
tblConstructionPhase	PhaseStartDate	4/24/2020	12/15/2020
tblConstructionPhase	PhaseStartDate	6/8/2019	1/29/2020
tblLandUse	LotAcreage	8.75	2.96

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.6212	2.5233	2.2038	4.5200e-003	0.1437	0.1250	0.2687	0.0407	0.1193	0.1600	0.0000	392.2452	392.2452	0.0633	0.0000	393.8268
2021	0.6908	5.4600e-003	7.6200e-003	2.0000e-005	5.5000e-004	3.3000e-004	8.8000e-004	1.5000e-004	3.3000e-004	4.8000e-004	0.0000	1.3362	1.3362	7.0000e-005	0.0000	1.3379
Maximum	**0.6908**	**2.5233**	**2.2038**	**4.5200e-003**	**0.1437**	**0.1250**	**0.2687**	**0.0407**	**0.1193**	**0.1600**	**0.0000**	**392.2452**	**392.2452**	**0.0633**	**0.0000**	**393.8268**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.6212	2.5233	2.2038	4.5200e-003	0.1437	0.1250	0.2687	0.0407	0.1193	0.1600	0.0000	392.2448	392.2448	0.0633	0.0000	393.8264
2021	0.6908	5.4600e-003	7.6200e-003	2.0000e-005	5.5000e-004	3.3000e-004	8.8000e-004	1.5000e-004	3.3000e-004	4.8000e-004	0.0000	1.3362	1.3362	7.0000e-005	0.0000	1.3379
Maximum	**0.6908**	**2.5233**	**2.2038**	**4.5200e-003**	**0.1437**	**0.1250**	**0.2687**	**0.0407**	**0.1193**	**0.1600**	**0.0000**	**392.2448**	**392.2448**	**0.0633**	**0.0000**	**393.8264**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	11-13-2019	2-12-2020	0.3673	0.3673
4	2-13-2020	5-12-2020	0.7067	0.7067
5	5-13-2020	8-12-2020	0.7207	0.7207
6	8-13-2020	11-12-2020	0.7222	0.7222
7	11-13-2020	2-12-2021	1.3108	1.3108
		Highest	1.3108	1.3108

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9999	0.0195	1.4866	9.4000e-004		0.0693	0.0693		0.0693	0.0693	6.3826	4.3197	10.7022	0.0119	4.2000e-004	11.1245
Energy	0.0154	0.1313	0.0559	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	323.7447	323.7447	0.0107	4.3900e-003	325.3209
Mobile	0.2263	0.6940	2.5608	8.6300e-003	0.7908	7.3800e-003	0.7982	0.2125	6.8900e-003	0.2194	0.0000	789.6659	789.6659	0.0289	0.0000	790.3895
Waste						0.0000	0.0000		0.0000	0.0000	13.0726	0.0000	13.0726	0.7726	0.0000	32.3869
Water						0.0000	0.0000		0.0000	0.0000	2.8939	20.2136	23.1075	0.2981	7.2100e-003	32.7087
Total	**1.2416**	**0.8448**	**4.1033**	**0.0104**	**0.7908**	**0.0873**	**0.8781**	**0.2125**	**0.0868**	**0.2994**	**22.3490**	**1,137.9439**	**1,160.2929**	**1.1222**	**0.0120**	**1,191.9306**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6769	0.0120	1.0418	5.0000e-005		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003	0.0000	1.6980	1.6980	1.6500e-003	0.0000	1.7392
Energy	0.0154	0.1313	0.0559	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	323.7447	323.7447	0.0107	4.3900e-003	325.3209
Mobile	0.1996	0.5603	1.9974	6.1300e-003	0.5520	5.4300e-003	0.5574	0.1483	5.0700e-003	0.1534	0.0000	560.7123	560.7123	0.0216	0.0000	561.2514
Waste						0.0000	0.0000		0.0000	0.0000	13.0726	0.0000	13.0726	0.7726	0.0000	32.3869
Water						0.0000	0.0000		0.0000	0.0000	2.8939	20.2136	23.1075	0.2981	7.2100e-003	32.7087
Total	**0.8919**	**0.7036**	**3.0950**	**7.0200e-003**	**0.5520**	**0.0218**	**0.5738**	**0.1483**	**0.0214**	**0.1698**	**15.9665**	**906.3686**	**922.3350**	**1.1046**	**0.0116**	**953.4071**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**28.16**	**16.71**	**24.57**	**32.56**	**30.20**	**75.06**	**34.66**	**30.20**	**75.33**	**43.29**	**28.56**	**20.35**	**20.51**	**1.57**	**3.49**	**20.01**

3.0 Construction Detail

Construction Phase

Gateway Family Housing - San Mateo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/31/2020	5	3	
3	Grading	Grading	2/3/2020	2/10/2020	5	6	
4	Building Construction	Building Construction	2/11/2020	12/14/2020	5	220	
5	Paving	Paving	12/15/2020	12/28/2020	5	10	
6	Architectural Coating	Architectural Coating	12/29/2020	1/11/2021	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 283,500; Residential Outdoor: 94,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	182.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	101.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	2.9800e-003	0.0000	2.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0197**	**0.0115**	**0.0312**	**2.9800e-003**	**0.0108**	**0.0137**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.1000e-004	0.0294	0.0122	7.0000e-005	1.5200e-003	9.0000e-005	1.6100e-003	4.2000e-004	9.0000e-005	5.1000e-004	0.0000	7.6014	7.6014	9.5000e-004	0.0000	7.6251
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.4000e-004	2.5300e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8522	0.8522	2.0000e-005	0.0000	0.8526
Total	**1.1600e-003**	**0.0296**	**0.0148**	**8.0000e-005**	**2.5400e-003**	**1.0000e-004**	**2.6400e-003**	**6.9000e-004**	**1.0000e-004**	**7.9000e-004**	**0.0000**	**8.4536**	**8.4536**	**9.7000e-004**	**0.0000**	**8.4777**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	2.9800e-003	0.0000	2.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0197**	**0.0115**	**0.0312**	**2.9800e-003**	**0.0108**	**0.0137**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.1000e-004	0.0294	0.0122	7.0000e-005	1.5200e-003	9.0000e-005	1.6100e-003	4.2000e-004	9.0000e-005	5.1000e-004	0.0000	7.6014	7.6014	9.5000e-004	0.0000	7.6251
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.4000e-004	2.5300e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8522	0.8522	2.0000e-005	0.0000	0.8526
Total	**1.1600e-003**	**0.0296**	**0.0148**	**8.0000e-005**	**2.5400e-003**	**1.0000e-004**	**2.6400e-003**	**6.9000e-004**	**1.0000e-004**	**7.9000e-004**	**0.0000**	**8.4536**	**8.4536**	**9.7000e-004**	**0.0000**	**8.4777**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**2.3900e-003**	**1.1700e-003**	**3.5600e-003**	**2.6000e-004**	**1.0700e-003**	**1.3300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0787	0.0787	0.0000	0.0000	0.0787
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0787**	**0.0787**	**0.0000**	**0.0000**	**0.0787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**2.3900e-003**	**1.1700e-003**	**3.5600e-003**	**2.6000e-004**	**1.0700e-003**	**1.3300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0787	0.0787	0.0000	0.0000	0.0787
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0787**	**0.0787**	**0.0000**	**0.0000**	**0.0787**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	**5.7700e-003**	**0.0640**	**0.0298**	**6.0000e-005**	**0.0197**	**2.9700e-003**	**0.0226**	**0.0101**	**2.7300e-003**	**0.0128**	**0.0000**	**5.4333**	**5.4333**	**1.7600e-003**	**0.0000**	**5.4773**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1967	0.1967	0.0000	0.0000	0.1968
Total	**8.0000e-005**	**6.0000e-005**	**5.8000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1967**	**0.1967**	**0.0000**	**0.0000**	**0.1968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	**5.7700e-003**	**0.0640**	**0.0298**	**6.0000e-005**	**0.0197**	**2.9700e-003**	**0.0226**	**0.0101**	**2.7300e-003**	**0.0128**	**0.0000**	**5.4333**	**5.4333**	**1.7600e-003**	**0.0000**	**5.4773**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1967	0.1967	0.0000	0.0000	0.1968
Total	**8.0000e-005**	**6.0000e-005**	**5.8000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1967**	**0.1967**	**0.0000**	**0.0000**	**0.1968**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4088	228.4088	0.0464	0.0000	229.5678
Total	**0.2517**	**1.9177**	**1.6387**	**2.7500e-003**		**0.1043**	**0.1043**		**0.1000**	**0.1000**	**0.0000**	**228.4088**	**228.4088**	**0.0464**	**0.0000**	**229.5678**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3900e-003	0.1913	0.0762	4.4000e-004	0.0108	9.5000e-004	0.0117	3.1100e-003	9.1000e-004	4.0200e-003	0.0000	43.7240	43.7240	3.8000e-003	0.0000	43.8190
Worker	0.0303	0.0205	0.2162	8.0000e-004	0.0875	5.5000e-004	0.0880	0.0233	5.1000e-004	0.0238	0.0000	72.8293	72.8293	1.4200e-003	0.0000	72.8648
Total	**0.0367**	**0.2119**	**0.2924**	**1.2400e-003**	**0.0982**	**1.5000e-003**	**0.0997**	**0.0264**	**1.4200e-003**	**0.0278**	**0.0000**	**116.5533**	**116.5533**	**5.2200e-003**	**0.0000**	**116.6838**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4086	228.4086	0.0464	0.0000	229.5675
Total	**0.2517**	**1.9177**	**1.6387**	**2.7500e-003**		**0.1043**	**0.1043**		**0.1000**	**0.1000**	**0.0000**	**228.4086**	**228.4086**	**0.0464**	**0.0000**	**229.5675**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3900e-003	0.1913	0.0762	4.4000e-004	0.0108	9.5000e-004	0.0117	3.1100e-003	9.1000e-004	4.0200e-003	0.0000	43.7240	43.7240	3.8000e-003	0.0000	43.8190
Worker	0.0303	0.0205	0.2162	8.0000e-004	0.0875	5.5000e-004	0.0880	0.0233	5.1000e-004	0.0238	0.0000	72.8293	72.8293	1.4200e-003	0.0000	72.8648
Total	**0.0367**	**0.2119**	**0.2924**	**1.2400e-003**	**0.0982**	**1.5000e-003**	**0.0997**	**0.0264**	**1.4200e-003**	**0.0278**	**0.0000**	**116.5533**	**116.5533**	**5.2200e-003**	**0.0000**	**116.6838**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.7700e-003**	**0.0579**	**0.0590**	**9.0000e-005**		**3.2800e-003**	**3.2800e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**7.7529**	**7.7529**	**2.4600e-003**	**0.0000**	**7.8143**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4917	0.4917	1.0000e-005	0.0000	0.4919
Total	**2.0000e-004**	**1.4000e-004**	**1.4600e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4917**	**0.4917**	**1.0000e-005**	**0.0000**	**0.4919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.7700e-003**	**0.0579**	**0.0590**	**9.0000e-005**		**3.2800e-003**	**3.2800e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**7.7529**	**7.7529**	**2.4600e-003**	**0.0000**	**7.8143**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4917	0.4917	1.0000e-005	0.0000	0.4919
Total	**2.0000e-004**	**1.4000e-004**	**1.4600e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4917**	**0.4917**	**1.0000e-005**	**0.0000**	**0.4919**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	2.5300e-003	2.7500e-003	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3837
Total	**0.2960**	**2.5300e-003**	**2.7500e-003**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.3830**	**0.3830**	**3.0000e-005**	**0.0000**	**0.3837**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1967	0.1967	0.0000	0.0000	0.1968
Total	**8.0000e-005**	**6.0000e-005**	**5.8000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1967**	**0.1967**	**0.0000**	**0.0000**	**0.1968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	2.5300e-003	2.7500e-003	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3837
Total	**0.2960**	**2.5300e-003**	**2.7500e-003**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.3830**	**0.3830**	**3.0000e-005**	**0.0000**	**0.3837**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.8000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1967	0.1967	0.0000	0.0000	0.1968
Total	**8.0000e-005**	**6.0000e-005**	**5.8000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1967**	**0.1967**	**0.0000**	**0.0000**	**0.1968**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6899					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-004	5.3400e-003	6.3600e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	0.8936	0.8936	6.0000e-005	0.0000	0.8952
Total	**0.6906**	**5.3400e-003**	**6.3600e-003**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**0.8936**	**0.8936**	**6.0000e-005**	**0.0000**	**0.8952**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.2600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4426	0.4426	1.0000e-005	0.0000	0.4428
Total	**1.8000e-004**	**1.2000e-004**	**1.2600e-003**	**0.0000**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4426**	**0.4426**	**1.0000e-005**	**0.0000**	**0.4428**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6899					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-004	5.3400e-003	6.3600e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	0.8936	0.8936	6.0000e-005	0.0000	0.8952
Total	**0.6906**	**5.3400e-003**	**6.3600e-003**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**0.8936**	**0.8936**	**6.0000e-005**	**0.0000**	**0.8952**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.2600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4426	0.4426	1.0000e-005	0.0000	0.4428
Total	**1.8000e-004**	**1.2000e-004**	**1.2600e-003**	**0.0000**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4426**	**0.4426**	**1.0000e-005**	**0.0000**	**0.4428**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1996	0.5603	1.9974	6.1300e-003	0.5520	5.4300e-003	0.5574	0.1483	5.0700e-003	0.1534	0.0000	560.7123	560.7123	0.0216	0.0000	561.2514
Unmitigated	0.2263	0.6940	2.5608	8.6300e-003	0.7908	7.3800e-003	0.7982	0.2125	6.8900e-003	0.2194	0.0000	789.6659	789.6659	0.0289	0.0000	790.3895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	922.60	1,002.40	849.80	2,133,153	1,488,959
Total	922.60	1,002.40	849.80	2,133,153	1,488,959

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.482816	0.049967	0.258264	0.138365	0.017696	0.006700	0.022365	0.006431	0.004044	0.003214	0.008927	0.000452	0.000759

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	171.7149	171.7149	7.7600e-003	1.6100e-003	172.3878
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	171.7149	171.7149	7.7600e-003	1.6100e-003	172.3878
NaturalGas Mitigated	0.0154	0.1313	0.0559	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0298	152.0298	2.9100e-003	2.7900e-003	152.9332
NaturalGas Unmitigated	0.0154	0.1313	0.0559	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0298	152.0298	2.9100e-003	2.7900e-003	152.9332

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.84893e+006	0.0154	0.1313	0.0559	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0298	152.0298	2.9100e-003	2.7900e-003	152.9332
Total		**0.0154**	**0.1313**	**0.0559**	**8.4000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**152.0298**	**152.0298**	**2.9100e-003**	**2.7900e-003**	**152.9332**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.84893e+006	0.0154	0.1313	0.0559	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.0298	152.0298	2.9100e-003	2.7900e-003	152.9332
Total		**0.0154**	**0.1313**	**0.0559**	**8.4000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**152.0298**	**152.0298**	**2.9100e-003**	**2.7900e-003**	**152.9332**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	590265	171.7149	7.7600e-003	1.6100e-003	172.3878
Total		**171.7149**	**7.7600e-003**	**1.6100e-003**	**172.3878**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	590265	171.7149	7.7600e-003	1.6100e-003	172.3878
Total		**171.7149**	**7.7600e-003**	**1.6100e-003**	**172.3878**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6769	0.0120	1.0418	5.0000e-005		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003	0.0000	1.6980	1.6980	1.6500e-003	0.0000	1.7392
Unmitigated	0.9999	0.0195	1.4866	9.4000e-004		0.0693	0.0693		0.0693	0.0693	6.3826	4.3197	10.7022	0.0119	4.2000e-004	11.1245

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0986					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5468					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3230	7.4300e-003	0.4448	8.9000e-004		0.0636	0.0636		0.0636	0.0636	6.3826	2.6216	9.0042	0.0103	4.2000e-004	9.3854
Landscaping	0.0316	0.0120	1.0418	5.0000e-005		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003	0.0000	1.6980	1.6980	1.6500e-003	0.0000	1.7392
Total	**0.9999**	**0.0195**	**1.4866**	**9.4000e-004**		**0.0693**	**0.0693**		**0.0693**	**0.0693**	**6.3826**	**4.3197**	**10.7022**	**0.0119**	**4.2000e-004**	**11.1245**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0986					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5468					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0316	0.0120	1.0418	5.0000e-005		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003	0.0000	1.6980	1.6980	1.6500e-003	0.0000	1.7392
Total	**0.6769**	**0.0120**	**1.0418**	**5.0000e-005**		**5.7400e-003**	**5.7400e-003**		**5.7400e-003**	**5.7400e-003**	**0.0000**	**1.6980**	**1.6980**	**1.6500e-003**	**0.0000**	**1.7392**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.1075	0.2981	7.2100e-003	32.7087
Unmitigated	23.1075	0.2981	7.2100e-003	32.7087

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	9.12156 / 5.75055	23.1075	0.2981	7.2100e-003	32.7087
Total		**23.1075**	**0.2981**	**7.2100e-003**	**32.7087**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	9.12156 / 5.75055	23.1075	0.2981	7.2100e-003	32.7087
Total		**23.1075**	**0.2981**	**7.2100e-003**	**32.7087**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.0726	0.7726	0.0000	32.3869
Unmitigated	13.0726	0.7726	0.0000	32.3869

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	64.4	13.0726	0.7726	0.0000	32.3869
Total		**13.0726**	**0.7726**	**0.0000**	**32.3869**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	64.4	13.0726	0.7726	0.0000	32.3869
Total		**13.0726**	**0.7726**	**0.0000**	**32.3869**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

How to Use the Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities (GDF)

This distance multiplier tool refines the screening values for cancer risk and chronic hazard index found in the District's Stationary Source Screening Analysis Tool to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions (GDF's).

1. Obtain the GDF cancer risk and/or chronic hazard index from the District's Stationary Source Screening Analysis tool for facilities where the Plant No. is preceded with a 'G'. If the distance to the nearest receptor is less than 20 meters, the distance adjustment multiplier table cannot be used and an air dispersion modeling analysis using site-specific information is needed to refine the cancer risk and/or chronic hazard index estimate.

2. Determine the shortest distance from the GDF to the nearest receptor.

3. In the table below, enter the cancer risk and/or chronic hazard index found in step 1 for the GDF in the row which aligns with the shortest distance from each GDF to the nearest receptor (found in step 2). If the shortest distance to the receptor falls between two distance values, select the multiplier corresponding to the smaller distance. For distances beyond 300 meters, use the multiplier 0.015. The resulting product is the adjusted cancer risk in a million or the adjusted chronic hazard index for the GDF.

Note: These distance adjustment multipliers may be used only for the screening level health risk values indicated in the District's Stationary Source Screening Analysis tool for gasoline dispensing facilities. This distance multiplier tool may not be used to adjust values from an HRA if an HRA for the facility was conducted.

Distance meters	Distance feet	Distance adjustment multiplier	Enter Cancer Risk	Adjusted Cancer Risk	Enter Chronic Hazard Index	Adjusted Chronic Hazard Index
20	66	1.000		0		0
25	82	0.728		0		0
30	98	0.559		0		0
35	115	0.445		0		0
40	131	0.365		0		0
45	148	0.305		0		0
50	164	0.260	23.819	6.193118047	0.039	0.010140292
55	180	0.225		0		0
60	197	0.197		0		0
65	213	0.174		0		0
70	230	0.155		0		0
75	246	0.139		0		0
80	262	0.126		0		0
85	279	0.114		0		0
90	295	0.104		0		0
95	312	0.096		0		0
100	328	0.088		0		0
105	344	0.082		0		0
110	361	0.076		0		0
115	377	0.071		0		0
120	394	0.066		0		0
125	410	0.062		0		0
130	426	0.058		0		0
135	443	0.055		0		0
140	459	0.052		0		0
145	476	0.049		0		0
150	492	0.046		0		0
155	508	0.044		0		0
160	525	0.042		0		0
165	541	0.040		0		0
170	558	0.038		0		0
175	574	0.036		0		0
180	590	0.034		0		0
185	607	0.033		0		0
190	623	0.031		0		0
195	640	0.030		0		0
200	656	0.029		0		0
205	672	0.028		0		0
210	689	0.027		0		0
215	705	0.026		0		0
220	722	0.025		0		0
225	738	0.024		0		0
230	754	0.023		0		0
235	771	0.022		0		0
240	787	0.022		0		0
245	804	0.021		0		0
250	820	0.020		0		0
255	836	0.020		0		0
260	853	0.019		0		0
265	869	0.018		0		0
270	886	0.018		0		0
275	902	0.017		0		0
280	918	0.017		0		0
285	935	0.016		0		0
290	951	0.016		0		0
295	968	0.015		0		0
300	984	0.015		0		0

Link 254 (6ft elevation)

	PM2.5	Risk	Chron.HI	Acute.HI
10 ft W	0.140	18.518	0.017	0.024
25 ft W	0.110	14.529	0.013	0.018
50 ft W	0.082	10.866	0.010	0.015
75 ft W	0.066	8.774	0.008	0.013
100 ft W	0.056	7.402	0.006	0.012
200 ft W	0.034	4.573	0.004	0.007
300 ft W	0.024	3.263	0.003	0.004
400 ft W	0.019	2.506	0.002	0.003
500 ft W	0.015	2.009	0.001	0.003
750 ft W	0.009	1.293	0.001	0.002
1000 ft W	0.007	0.911	0.000	0.002
10 ft E	0.253	31.389	0.030	0.028
25 ft E	0.209	25.866	0.025	0.025
50 ft E	0.163	20.115	0.019	0.020
75 ft E	0.134	16.569	0.016	0.016
100 ft E	0.115	14.188	0.013	0.013
200 ft E	0.075	9.231	0.009	0.009
300 ft E	0.056	6.882	0.006	0.005
400 ft E	0.045	5.508	0.005	0.004
500 ft E	0.037	4.596	0.004	0.003
750 ft E	0.026	3.241	0.003	0.003
1000 ft E	0.020	2.473	0.002	0.002

Appendix E – Contamination and Toxic Substances

- Integrated Property Analysis, Inc. *Phase I Environmental Site Assessment, The Gateway Garden Apartments, 1317-1385 Willow Road, Menlo Park, California 94025.* Vista, CA : s.n., May 21, 2019. IPA Project #0138-0306.

IPA Project #0138-0306

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

for

THE GATEWAY GARDEN APARTMENTS
1317 – 1385 WILLOW ROAD
MENLO PARK, CALIFORNIA 94025

PREPARED FOR
Mid-Peninsula Housing Corporation
303 Vintage Park Drive, Suite 250
Foster City, CA 94404

DATE OF SITE VISIT
May 14, 2019

DATE OF REPORT
May 21, 2019

Integrated Property Analysis, Inc.
550 West Vista Way, Suite 212, Vista, California 92083 Tel: (949) 756-8282; Fax: (949) 756-8280

Project Summary

THE GATEWAY GARDEN APARTMENTS

1315 – 1385 WILLOW ROAD
MENLO PARK, CALIFORNIA 94025

Assessment Component	Acceptable	O&M	Requires Further Investigation	Estimated Cost	Reference Section	Page
Historical Review	✓				6	18
Operational Activities	✓				7.1	25
Hazardous Materials	✓				7.2	25
Waste Generation	✓				7.3	25
PCBs	✓				7.4	26
Asbestos		✓		$250.00	7.5	26
Radon	✓				7.6	27
Lead-Based Paint		✓		$250.00	7.7	28
Lead in Drinking Water	✓				7.8	28
Tanks/Pipelines	✓				7.9	29
Surface Areas	✓				7.10	30
Mold	✓				7.11	30
Regulatory Database Review	✓				9	33
Vapor Encroachment Screen (VEC)	✓				10	42
Adjacent Properties	✓				11	53

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1. Certification

Integrated Property Analysis, Inc. (IPA) has completed a Phase I Environmental Site Assessment (ESA) of The Gateway Garden Apartments (the Subject), located at 1317 – 1385 Willow Road, Menlo Park, California 94025. IPA performed the Phase I ESA utilizing generally accepted Phase I industry standards in accordance with ASTM Standard E 1527-13.

This report is considered confidential and privileged information which was prepared for the sole and exclusive use and information of Mid-Peninsula Housing Corporation (the Client). IPA understands that this report will be used to assist in evaluating environmental issues and site conditions. This report is for the exclusive use of the Client or its legal counsel.

Surveyed and Written by:	Michael Atallah, Vice President/IPA
Reviewed by:	Mike Atallah, President/IPA

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.

Michael Atallah

Vice President

2. Executive Summary

IPA performed a Phase I Environmental Site Assessment that included on-site observations of the accessible areas of The Gateway Garden Apartments (the "Subject"), on May 14, 2019. The Subject is located at 1317 – 1385 Willow Road in Menlo Park, California 94025.

The Subject, constructed circa the 1950's, is currently a multi-family residential apartment complex.. Prior to construction of the current improvements, the Subject was unimproved land possibly in agricultural use. Properties in the vicinity of the Subject include residential and commercial development including a gas station and a police substation under construction.

The following summarizes the independent conclusions representing IPA's best professional judgment based on information and data available to us during the course of this assignment. Factual information regarding operations, conditions, and test data provided by the Client, owner, or their representative have been assumed to be correct and complete. Additionally, the conclusions presented are based on the conditions that existed at the time of the assessment.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of The Gateway Garden Apartments at 1317 – 1385 Willow Road in Menlo Park, California 94025. Any exceptions to, or deletions from, this practice are described in Section 3 of this report. This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the Subject. No further action or investigation is recommended at the subject property in relation to RECs.

A Recognized Environmental Condition is defined by ASTM as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with the laws. "The term REC does not include de minimis conditions. De minimis conditions are defined by ASTM as environmental conditions that "generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

A summary of the findings for this assessment are described below.

2.1. Findings/Conclusions

Historical Review (Section 6)

- The review of the historical data available for the Subject and surrounding area revealed no evidence that may have lead to an environmental impact to the Subject. No further action or investigation is recommended regarding historical uses.

Operational Activities (Section 7.1)

- IPA observed no circumstances of environmental concern associated with the operational activities at the Subject. No further action or investigation is recommended regarding operational activities at the Subject.

Hazardous Materials/Petroleum Products (Section 7.2)

- Routine janitorial and maintenance supplies are used at the subject. The identified materials appear to be properly stored. The materials observed do not appear to pose a hazard to the Subject, provided they continue to be used as designed, are properly handled, and all regulations regarding their use are followed. No further action or investigation is recommended regarding the use of hazardous materials or petroleum products at the Subject.

Wastes (Section 7.3)

- The Subject does not generate, treat, store, or dispose of hazardous, medical, or regulated wastes. Furthermore, the non-hazardous solid and liquid wastes generated at the Subject appear to be stored and disposed of properly. No further action or investigation is recommended regarding wastes at the Subject.

Polychlorinated Biphenyls (PCBs) (Section 7.4)

- IPA identified utility-owned transformers at the Subject for which the PCB content is unknown. This equipment appeared to be in good condition with no evidence of leaks. The utility is the financially responsible party for maintenance of the transformers. No further action or investigation is recommended regarding the transformers at the Subject.

- Fluorescent lighting was observed to be present at the Subject. Because the Subject was constructed prior to 1978, IPA is of the opinion that some older fluorescent light ballasts at the Subject may utilize fluids potentially containing PCBs. Any fluorescent light ballasts at the Subject that are not clearly labeled as containing no PCBs should be disposed of in accordance with applicable federal, state and local regulations.

Asbestos-Containing Materials (ACM) (Section 7.5)

- Asbestos-containing building materials (ACM) were identified at the Subject during a previous asbestos survey and inspection of the property in 2006 by Advantage Environmental and Safety Services Inc. A copy of the previous asbestos survey/assessment report is provided as an attachment. The report identifies asbestos in the following materials at the Subject: sheetrock and tape joint compound, texture coat on sheetrock. All other building materials at the site not tested for asbestos (e.g. flooring materials, stucco, roofing materials, vent flues, window putty, insulation, adhesives, caulking, materials inside equipment, etc.) are presumed to contain asbestos until determined otherwise through testing performed in accordance with regulatory requirements. Based on the information contained in the previous asbestos report, IPA recommends an Asbestos Operations and Maintenance (O&M) program for the Subject for known and presumed asbestos-containing building materials. A properly designed O&M program is sufficient to maintain the Subject in accordance with current regulatory standards and sound business practice. ACM maintained with an O&M Program can remain in place, provided the ACM is in good condition, and remains intact and undisturbed.

Radon Gas (Section 7.6)

- Review of the USEPA's Radon Map for San Mateo County, California indicated that the Subject is located in Zone 2, areas with a predicted average indoor radon screening level between 2 and 4 pCi/L (picoCuries per liter of air). Based on the propensity, radon sampling was not performed as a part of this assessment. No further action or investigation is recommended with regard to radon gas levels at the Subject.

Lead-Based Paint (LBP) (Section 7.7)

- Lead-based paint was identified at the Subject during a previous lead-based paint survey and inspection of the property in 2006 by Advantage Environmental and Safety Services Inc. A copy of the previous lead-based paint survey/assessment report is provided as an attachment. The findings in the report indicate that lead-based paint was detected at the property in ceramic tile and in stucco on the exterior of buildings. According to the report, "Lead was detected in most of the items tested that if disturbed may cause a lead hazard." No sampling or testing of the soil was included in the Advantage inspection. According to the Advantage report, "Any item that was tested and found to contain no lead by XRF must be re-sampled and analyzed by Atomic Absorption for Cal-OSHA compliance."

- Based on the Advantage report and the pre-1978 construction date of the Subject buildings, all painted surfaces at the Subject are presumed to contain lead-based paint until determined otherwise through further testing performed in accordance with both federal and state regulatory requirements. The presumed lead-based paint at the Subject can be maintained under a Lead Paint Operations and Maintenance (O&M) program that includes remediation by a licensed lead-based paint abatement contractor of all damaged surfaces. A properly developed lead paint O&M Program is sufficient to maintain the property in accordance with regulatory requirements. Prior to repair, renovation, or demolition activities at the site, all painted surfaces should be sampled and tested or handled/removed as LBP in accordance with federal, state and local regulatory requirements.

Lead in Drinking Water (Section 7.8)

- Based on published utility department information, the water at the Subject is not expected to contain elevated levels of lead. No further action or investigation is recommended regarding lead in drinking water at the Subject.

Storage Tanks/Pipelines (Section 7.9)

- No evidence of storage tanks or pipelines (above or below ground) was identified. No further action or investigation is recommended regarding storage tanks or pipelines at the Subject.

Surface Areas (Section 7.10)

- No issues associated with surface areas were identified. No further action or investigation is recommended regarding surface areas at the Subject.

- Visual observation of the storm water system did not identify any abnormal accumulation of petroleum run-off or foreign material. No unusual blockages of the storm water control system were observed. No unusual ponding of storm waters was observed. No further action or investigation is recommended regarding storm water systems at the Subject.

Mold (Section 7.11)

- IPA performed a limited visual assessment for the presence of mold, conditions conducive to mold, and evidence of moisture in readily accessible areas of the subject buildings. No areas of significant mold or moisture were observed. No further action or investigation is recommended regarding mold at the Subject.

Regulatory Review (Section 9)

- Based on review of the regulatory database report, the Subject is listed on the HAZNET database as a hazardous waste generator site for asbestos-containing waste and other organic solids. Review of the available information and discussions with knowledgeable personnel at the Subject site indicates that the waste was disposed of in accordance with regulatory requirements. The Subject's listings are discussed in additional detail in Section 9. No further action or investigation is recommended regarding the on-site regulatory review.

- No further action or investigation is recommended regarding the off-site regulatory review.

Vapor Encroachment Screen (Section 10)

- Based on review of environmental records searched by EDR for the Tier 1 Vapor Encroachment Screen, IPA concludes that the Subject is not a listed site. The VES Area of Concern (AOC) identified several sites where, based on ASTM Standard E 2600-10, a Vapor Encroachment Condition (VEC) cannot be ruled out. However, it is IPA's opinion that adequate information was provided in a SWRCB file review, as discussed in further detail in Section 10, to determine that a Vapor Encroachment Condition from the AOC sites to the Subject is unlikely. Therefore, no further action or investigation is recommended regarding the Vapor Encroachment Screen.

Adjacent Properties (Section 11)

- The site located adjacent to the east of the subject property across Willow Road is listed in the regulatory report as a California Envirostor Site and the site located adjacent to the south of the Subject is listed in the regulatory report as a leaking underground storage tank site as discussed in Section 9, and is also discussed in Section 10 as a possible Vapor Encroach Screen (VES) hazard. Based on information reviewed for this assessment, further discussed in Sections 9 and 10, it is IPA's opinion that no current adjacent property uses are anticipated to have a negative impact on the environmental integrity of the Subject. No further action or investigation is recommended regarding adjacent properties.

- No other adjacent properties are anticipated to have a negative impact on the environmental integrity of the Subject.

2.2. Recommendations

The following on-site environmental items of note were identified:

- Asbestos-containing materials and lead-based paint are known and presumed to be present at the Subject. See the Asbestos and Lead-based Paint discussions below for further information and recommendations.

The following additional actions are recommended:

- The development and implementation of an Asbestos O&M Program. Costs indicated are for O&M Program Document development only.

  Associated cost estimate $250.00

- The development and implementation of a Lead-Based Paint O&M Program. Costs indicated are for O&M Program document development only.

  Associated cost estimate $250.00

- Any fluorescent light ballasts at the Subject that are not clearly labeled as containing no PCBs should be disposed of in accordance with applicable federal, state and local regulations.

  A Tier 1 Vapor Encroachment Screen (VES) of the Subject area identified sites in the Subject's Area of Concern that require further investigation. See the VES discussion below for IPA's recommendation regarding this issue.

3. Survey Approach/Purpose/Limitations

IPA conducted an on-site Environmental Site Assessment of the Subject that consisted of a walk-through observation of the accessible areas and interviews with facility personnel and local agency representatives. On-site activities and/or interviews were conducted by Mr. Michael Atallah, Vice President of IPA, with:

- Ms. Melanie Casperson, Property Manager, The Gateway Garden Apartments

Areas accessed included representative apartment units, all maintenance and mechanical areas, all exterior areas, and the Subject boundaries.

Weather conditions at the time of the Subject assessment were clear.

IPA reviewed available federal, state, and local records in an effort to identify sites of known or suspected hazardous waste activity located at or near the Subject which could have an adverse impact on the Subject. In an attempt to determine whether historical uses of the Subject and surrounding area have had an environmental impact on the Subject, IPA interviewed individuals knowledgeable about the Subject and reviewed available pertinent records and documents. This assessment is based on the evaluation of the information gathered, laboratory analysis of samples collected (when required), and accessibility at the time of the assessment.

The purpose of this report is to provide the Client an assessment concerning environmental conditions (limited to those issues identified in the report) as they existed at the Subject. The assessment was conducted utilizing generally accepted Phase I industry standards using the American Society for Testing and Materials (ASTM) Standard Practice E 1527-13. The scope of work included an evaluation of:

- The Subject history in an attempt to identify any possible ownership(s) and/or uses that would suggest an impact to the environmental integrity of the Subject as identified through review of reasonably ascertainable standard historical sources.

- Physical characteristics of the Subject as identified through review of reasonably ascertainable topographic maps.

- Current Subject conditions (as applicable), including compliance with appropriate regulations as they pertain to the presence or absence of:

  - Facility storage tanks, drums, containers (above or below ground), etc.
  - Transformers and other electrical equipment which utilize fluid which may potentially contain PCBs
  - The use of hazardous materials/chemicals and petroleum products, and/or the generation, treatment, storage, or disposal of hazardous, regulated, or medical wastes

- An evaluation of information contained in programs such as the NPL, CERCLIS, SHWS, RCRIS, SWF, LUST, and other governmental information systems within specific search distances of the Subject. This evaluation was performed to identify any sites that would have the potential to impact the environmental integrity of the Subject.

  The regulatory agency report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The report is based on a radius search which focuses on both the Subject and neighboring sites that may impact the Subject. Neighboring sites listed in governmental environmental records are identified within a specific search distance. The search distance varies depending upon the particular government record being checked. The search is designed to meet the requirements of ASTM Standard E 1527-13. The information provided is assumed to be correct and complete.

- Visual observation of the adjacent properties to identify high-risk neighbors and the potential for known or suspected contamination to migrate onto the Subject.

In addition, at the Client's request, the assessment included the following:

- A review of the physical characteristics of the Subject as identified through review of reasonably ascertainable wetlands, flood plain, soils, geology, and groundwater data.
-
- A screening approach for the potential existence of:
  - Radon gas propensity, through the review of the USEPA's Map of Radon Zones.
  - Lead in water, based on information provided by the municipal water provider.
  - Mold, including the identification of visible mold growth, conditions conducive for mold growth, and evidence of moisture in accessible areas of the Subject. In addition, IPA interviewed Subject personnel regarding any known or suspected mold contamination, water intrusion, or mildew like odor problems. Sampling was not performed as a part of this assessment. IPA notes that this assessment does not constitute a comprehensive mold survey of the Subject, and the conclusions made are based solely on observable conditions in readily accessible interior areas of the Subject on the assessment date.
- A Tier 1 Vapor Encroachment Screen in accordance with ASTM Standard E 2600-10.

Limitations

The information presented in this report is based on the agreed upon scope of work as outlined. IPA makes no warranties or guarantees as to the accuracy or completeness of information obtained from information provided or compiled by others. It is possible that information exists beyond the scope of this investigation. Also, changes in site use may have occurred sometime in the past due to variations in rainfall, temperature, water usage, economic, agricultural or other factors. Limited site specific information was made available to IPA about the site. Additional information that was not found or available to IPA at the time of writing the report, may result in a modification of the conclusions and recommendations presented. This report is not a legal opinion. The services performed by IPA have been conducted in a manner consistent with the level of care ordinarily exercised by members of our profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.

It should be noted that all surficial environmental assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. Subsurface conditions were not field investigated as part of this study and may differ from the conditions implied by the surficial observations. Additionally, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties.

It must be noted that no investigation can absolutely rule out the existence of any hazardous materials at a given site. This assessment has been based upon prior site history and observable conditions and activities. Existing hazardous materials and contaminants can escape detection using these methods.

The work performed in conjunction with this assessment and the data developed are intended as a description of available information at the dates and location given. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. In addition, this report is not intended as a regulatory agency compliance/safety audit or for the purpose of ensuring that all applicable permits and/or operating procedures are current and/or appropriate.

IPA recommends that any periodic review of any property should include an update of information on environmental conditions in the area. Note that no soils, groundwater, or potable water testing for the presence of hazardous substances was performed for this assessment.

This report is considered confidential and privileged information. It was prepared for the sole and exclusive use and information of the Client and its affiliates, rating agencies, and certain limited investors involved in the Securitization of the property.

3.1. Data Gaps

Data gaps in information exist. However, because the data gaps were not determined to be material in identifying a Recognized Environmental Conditions (RECs) they are not considered by ASTM standards to be *significant* and are therefore not individually addressed in this report.

4. User Provided Information

This Section documents whether the user reported to IPA information pursuant to the responsibilities described in Section 6 of the ASTM Standard E 1527-13.

4.1. User Engaged Environmental Cleanup Liens and Activity And Use Limitation (AUL) Review

The user did not engage IPA to review title and judicial records for environmental liens or Activity and Use Limitations (AULs) recorded against the Subject. Furthermore, these documents were not provided to IPA for review. The lack of or inability to obtain this information represents a data gap. Based on the findings of this report, the absence of this information is not considered a *significant* data gap.

4.2. User Questionnaire

A User Questionnaire was provided to the user (Client) to assist the user and IPA in gathering information from the user that may be material to identifying RECs. A copy of the User Questionnaire is provided in the Appendices (Section 12).

4.3. Reason for Assessment

The reason of the assessment was not provided by the user, therefore, it is assumed that the purpose is to qualify for an LLP to CERCLS liability.

5. Subject Location/Description

The Subject is located at 1317 – 1385 Willow Road in Menlo Park, California.

5.1. Subject Description

Age of Subject:	The Subject was reported to be built circa the 1950's.
Site Configuration:	The subject property consists of one irregular-shaped parcel (055-383-560) consisting of a total of 2.957 acres. Entrances to the Subject property are provided from Willow Road and Ivy Road.
Site drainage:	Storm water flows to inlets connected to the municipal storm system.
Utilities:	The property is serviced by Pacific Gas and Electric (PG&E) for electricity and gas services, and the City of Menlo Park for water and sanitary services. The buildings are individually metered for utility services.
Built Improvements:	The subject property consists of 17 one-story apartment buildings, 6 two-story apartment buildings, and 1 two-story common area leasing office / laundry room / apartment building. The buildings consist of conventional wood-framing.
Landscaping:	Landscaping consists of mature trees, shrubs, grasses, flowering plants, tenant garden areas, and an automatic irrigation system.
Amenities/Common Areas:	One tot lot area, tenant garden areas, barbecue area, concrete and asphalt-paved courtyard areas and landscaped areas. Common building areas include the leasing office, community room and common area laundry room provided at the leasing office / laundry room / apartment building, restrooms and maintenance rooms.

Number of units:	82 rentable apartment units.
Parking:	Asphalt-paved open parking areas and steel-framed carport structures.
Building foundation(s):	Based on IPA's visual survey, it appears that the foundation systems consist of concrete slab-on-grade construction or raised wood foundations with perimeter and isolated footings.
Framing/exteriors:	The buildings consist of conventional wood framing. The buildings are finished with painted stucco and plywood siding with wood trim. All surfaces are painted.
Building roofing system(s):	The buildings consist of pitched roof areas with asphaltic composition shingle roofing and flat roof areas with gravel roof cover or mineral surface cap sheet.
HVAC system:	Gas-fired wall heaters are provided at each unit. Through-wall air conditioners are provided at the common area leasing office and community room.
Hot water system:	Individual 30-gallon gas-fired water heaters are provided at the units. A central 75-gallon gas-fired water heater is provided for the common areas at the leasing office / laundry room / apartment building.
Flooring:	The unit living areas and bedrooms are finished with wall-to-wall carpet flooring. The kitchen and bathrooms are finished with sheet vinyl flooring. The common area leasing office is finished with carpet and vinyl flooring. The common area community room and laundry rooms are finished with vinyl composition tile flooring. Maintenance rooms are provided with sealed concrete flooring.
Walls and ceilings:	Painted gypsum wallboard with light texture over conventional stud framing is typical for walls and ceilings.

5.2. Environmental Setting

5.2.1. Topography

Review of the Palo Alto, California Topographic Quadrangle, published by the United States Geological Survey (USGS) and dated 2012, indicated the following:

- The Subject has an average elevation of approximately 10 feet above mean sea level. Elevations do not vary significantly across the Subject lands. Slope in the general area of the Subject is to the north.
- The Subject area is shaded to represent a high-density developed area and the exact site improvements are not shown
- No surface water features are indicated on the Subject. The Hetch Hetchy Aqueduct appears to run along or under Ivy Drive.

5.2.2. Wetlands

Review of wetlands information provided by EDR indicated the following:

- No wetland areas are indicated at the Subject or adjacent properties.

5.2.3. Soils/Geology

Review of soils information for the Subject area provided by EDR indicated the following:

- The Subject is located in an area comprised of one soil type known as Urban Land. This soil type is in the Class D Hydrologic Group with very slow infiltration rates. These soils are described as clayey, have a high water table, or are shallow to an impervious layer.

Review of geologic information for the Subject area provided by EDR indicated the following:

<u>Rock Stratigraphic Unit</u>

- Era: Cenozoic
- System: Quaternary
- Series: Quaternary

<u>Geologic Age Identification</u>

- Category: Stratified Sequence

5.2.4. Groundwater Hydrology

Review of the Ground Water Atlas of the United States, Segment 1, California/ Nevada, published by the U.S. Geological Survey and dated 1995, indicated the following:

- The Subject is located within the Coastal Basins aquifers. These aquifers are composed of terrestrial, marine and volcanic rocks deposited in intermontane valleys. The intermontane basins in the coastal mountains of California are structural troughs or depressions that parallel the coastline and formed as a result of folding and faulting. Most of the folds and faults trend northward and result from the deformation of older rocks by the intense pressures of colliding continental plates. In all the basins, most of the freshwater is contained in aquifers that consist of continental deposits of sand and gravel that might be interbedded with confining units of fine-grained material, such as silt and clay. The aquifers and confining units compose an aquifer system.

  Water enters a typical coastal basin aquifer in several ways. Runoff from precipitation in the surrounding mountains infiltrates the permeable sediments of the valley floor either at the basin margins or through streambeds where the water table is lower than the water level in the stream. Precipitation that falls on the valley floor provides some direct recharge, but in the coastal basins, most of the precipitation evaporates or is transpired by plants. In a few basins that are hydraulically connected to other basins, water can enter an aquifer system as lateral subsurface flow from an adjacent basin. Of these methods of recharge, runoff from the mountains and percolation through streambeds provide the largest amounts of water to the groundwater system.

Shallow ground water levels in the area of the Subject are estimated to be less than ten feet below ground surface.

Shallow groundwater flow is expected to follow the ground level slope of surface elevations. The direction of this flow at the Subject is anticipated to be toward the north.

Estimated groundwater levels may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

6. Historical Review

6.1. Chain of Title

A Chain of Title review was not performed for this assessment.

6.2. Prior Use Interviews

According to the Subject Point of Contact, the Subject was unimproved land prior to the construction of the current improvements.

6.3. Local and/or State Government Agency Record Review/Interviews

IPA reviewed building permit information for the Subject at the Menlo Park Building Division. General building permits for subject were on file, but did not reveal any information or condition that could impact the environmental integrity of the Subject. No environmentally significant information was identified during this review.

Review of available zoning records at the City of Menlo Park indicates that the Subject is currently zoned R-3, Apartment District – Multiple Family Residential.

IPA researched the State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), DOGGR Online Mapping System (https://maps.conservation.ca.gov/doggr) for information regarding oil and gas development. According to the DOGGR Online Mapping System, no oil or gas wells are located on or adjacent to the Subject.

6.4. Historical Maps

Sanborn Maps

IPA reviewed available Sanborn maps as provided by EDR. According to EDR, Sanborn map coverage was not available for the Subject.

Historical Topographic Maps

Review of historical topographic maps back to 1897 did not identify any environmental concerns in the Subject area.

6.5. Historical City Directories

Historical city directories as provided by EDR were reviewed for the Subject. City directories have tenant listings by address. This review revealed the following information:

- **1977** – The Subject addresses are listed as apartments with individual names identified.
- **1980 –** The Subject addresses are listed as apartments with individual names identified.
- **1985** – The Subject addresses are listed as apartments with individual names identified.
- **1990** – The Subject addresses are listed as apartments with individual names identified.
- **1995** – The Subject addresses are listed as apartments with individual names identified.
- **2000** – The Subject addresses are listed as apartments with individual names identified.
- **2005** – The Subject addresses are listed as apartments with individual names identified.
- **2010 –** The Subject addresses are listed as apartments with individual names identified.

6.6. Aerial Photography

Historical aerial photographs were provided by EDR. Review of the photographs identified the following:

1939

Subject

The Subject is unimproved land that appears to be in agricultural use. Vehicular access is available to the Subject from a roadway adjacent to the east. The roadway infrastructure that is presently in place in the Subject area is evident in the photograph.

Off-site

The areas to the south and west of the Subject are shown to be unimproved land that appears to be in agricultural use. The area adjacent to the north of the Subject appears to be occupied by rural residential and/or farming-related development. The area to the east of the Subject across the adjacent roadway appears to be primarily unimproved land that appears to be in agricultural use, with a rural residential and/or farming-related development in the southern and northern portions.

1943

The 1943 aerial photograph does not differ significantly from the 1939 aerial photograph.

1948

The 1948 aerial photograph differs from the 1943 aerial photograph in that:

Subject

The Subject remains unimproved but no longer appears to be in agricultural use. What appear to be networks of dirt trails or paths are evident on both Subject parcels.

Off-site

The area to the south remains unimproved but no longer appears to be in agricultural use. The area to the west of the Subject also remains primarily unimproved and no longer appears to be in agricultural use; however, what appear to be several single-family residences are event in the northern and southern portions of the site. The area to the east of the Subject across the adjacent roadway is shown to be developed with a large industrial facility that is labeled as a factory on the 1953 topographic map.

1950

The 1950 aerial photograph does not differ significantly from the 1948 aerial photograph.

1958

The 1958 aerial photograph differs from the 1950 aerial photograph in that:

Subject

The Subject has been developed with the multi-family residences that presently occupy the sites with the exception that one lot does not yet appear to be improved.

Off-site

The area to the west of the Subject has been fully developed with single-family residences. The area to the east of the Subject across the adjacent roadway is shown to be further developed with industrial and/or commercial buildings and associated parking lot areas.

1963

The 1963 aerial photograph differs from the 1958 aerial photograph in that:

Subject

The Subject has been fully developed with the multi-family residences that presently occupy the sites.

Off-site

The area to the north of the Subject has been developed with a commercial facility, possibly a gas station. The area to the south of the Subject has been developed with two small commercial structures. The area to the east of the Subject across the adjacent roadway is shown to be fully developed with industrial and/or commercial buildings and associated parking lot areas.

1968

The 1968 aerial photograph does not differ significantly from the 1963 aerial photograph.

1974

The 1974 aerial photograph does not differ significantly from the 1968 aerial photograph.

1982

The 1982 aerial photograph differs from the 1974 aerial photograph in that:

Off-site

Some of the industrial and/or commercial buildings previously observed to the east of the Subject across the adjacent roadway appear to have been redeveloped or reconfigured.

1991

The 1991 aerial photograph differs from the 1982 aerial photograph in that:

Off-site

The two small commercial buildings previously observed adjacent to the south of the Subject appear to have been replaced by one commercial building. Most of the industrial and/or commercial buildings previously observed to the east of the Subject across the adjacent roadway appear to have been completely redeveloped or reconfigured.

1998

The 1998 aerial photograph differs from the 1991 aerial photograph in that:

Off-site

The property adjacent to the north of the Subject, previously observed to be occupied by a commercial facility, possibly a gas station, now appears to be vacant land.

2005

The 2005 aerial photograph differs from the 1998 photograph in that:

Off-site

The property adjacent to the north of the Subject, previously observed to be vacant land, now appears to be developed with a commercial facility known to be a gas station.

2009

The 2009 aerial photograph does not differ significantly from the 2005 aerial photograph.

2012

The 2012 aerial photograph does not differ significantly from the 2009 aerial photograph.

2016

The 2016 aerial photograph does not differ significantly from the 2012 aerial photograph.

6.7. Previous Investigations/Assessments

IPA was not provided with any previously conducted Phase I Environmental Site Assessment reports for the Subject. Previous asbestos and lead-based paint survey/assessment reports are provided as attachments to this report.

6.8. Plans and Specifications

As-built/renovation-site plans, drawings, or specifications were not available for review at the Subject or local agency offices visited for this assessment.

6.9. Historical Summary

Based upon a review of local agency records, historical city directories, historical topographic maps, and historical aerial photographs, the Subject was unimproved land possibly in agricultural use prior to the development of the current Subject improvements circa the 1950's. No evidence was uncovered through IPA's research to indicate that home and/or farm heating fuel tanks, or structures such as sumps, separators, evaporation ponds, or well cellars were previously located on the subject; however, no subsurface investigations were performed for this assessment. No significant environmental concerns that would warrant further investigation were identified during the course of this assessment regarding the prior uses of the subject property.

The review of aerial photographs indicated that gas station facilities were previously located adjacent to the north of the 1300 Subject block in the location of the current Chevron station.

IPA was not able to obtain standard historical sources which document the use of the Subject back to first developed use, or back to 1940, whichever is earlier, or obtain the Subject history in five year intervals. This data failure represents a data gap; however, this data gap is not considered a *significant* data gap and therefore is not addressed in Section 3.1.

7. Subject Reconnaissance

7.1. Operational Activities/Noteworthy Tenants

The Subject is occupied by residential development. No environmentally noteworthy tenants occupy the Subject and no environmentally significant operations are conducted at the Subject.

Considering the operations assessed at the Subject, no environmental permits, registrations or notifications appear to be required.

7.2. Hazardous Materials/Petroleum Products Storage and Handling

Visual observation for the use and/or storage of hazardous materials and petroleum products was performed. The following products listed in the Observed Materials Table below were identified.

Observed Materials			
Type of Material	**Quantity**	**Storage Location**	**Use**
Routine janitorial and maintenance supplies	Limited quantities of commercially available products in retail size containers.	Maintenance shop, maintenance garage, maintenance storage areas.	Subject maintenance and upkeep

The identified chemicals, materials, and products were observed in their sealed, original containers and in designated storage areas. Materials appeared to be properly stored.

No evidence of spills or staining was observed in the areas of product storage/usage. In addition, the concrete floors and asphalt surfaces appeared intact and no cracks were observed in the areas of product storage/usage.

Urea formaldehyde insulation was used during the 1970's and early 1980's to reinsulate buildings with little or no existing insulation. Urea and formaldehyde were mixed with a foaming agent injected into the walls of buildings. A problem can ensue when excess formaldehyde is present in the mixture. The formaldehyde can slowly escape from the foam to permeate the building. Release of excess formaldehyde can take a year or more. Gaseous formaldehyde can cause eye, nose, and throat irritation, disturbed sleep, and allergic reactions. Some researchers have claimed that the substance can promote cancer but this has not been proven conclusively. No evidence of UFFI was observed during the site survey.

7.3. Waste Generation, Treatment, Storage, and Disposal

Visual observation for the generation, treatment, storage, and disposal of wastes was performed. IPA identified the following waste generation listed in the Waste Generation Table below.

Waste Generation			
Type of Waste	**Generation Process**	**Pre-Disposal Storage**	**Disposal Method**
Non-Hazardous Solid			
Municipal trash	N/A	Dumpsters	Contracted waste hauler
Non-Hazardous Liquid			
Sewage	N/A	N/A	Municipal sanitary system

No evidence of spills or staining was observed in the area of waste generation or pre-disposal storage. In addition, the asphalt surfaces appeared intact and no cracks were observed in the areas of waste generation or pre-disposal storage.

No excessive odors or overflowing/excessive ground trash were noted in the vicinity of the trash dumpsters. No hazardous, regulated, or medical wastes were noted in the trash dumpsters.

7.4. Polychlorinated Biphenyls (PCBs)

The Subject is supplied with secondary electrical service from subterranean electrical transformers. The transformers are designated as the property of Pacific Gas and Electric (PG&E), the public utility. The units are not classified regarding PCB content. The units should be periodically inspected for leakage. If leakage is visible, the Subject owner/manager should contact the public utility, which will remediate the situation. Should the units have to be replaced, the utility is responsible, provided the cause is equipment failure, not customer misuse. No leakage of the transformers was observed at the time of the assessment.

Fluorescent lighting was observed to be present at the Subject. Because the Subject was constructed prior to 1978, IPA is of the opinion that some older fluorescent light ballasts at the Subject may utilize fluids potentially containing PCBs. Any fluorescent light ballasts at the Subject that are not clearly labeled as containing no PCBs should be disposed of in accordance with applicable federal, state and local regulations.

No additional equipment with the potential to utilize dielectric or hydraulic fluid was observed during the site assessment.

7.5. Asbestos-Containing Materials (ACM)

Asbestos-containing building materials were identified at the Subject during a previous asbestos survey and inspection of the property in 2006 by Advantage Environmental and Safety Services Inc. A copy of the previous asbestos survey/assessment report is provided as an attachment. The report identifies asbestos in the following materials at the Subject: sheetrock and tape joint compound, texture coat on sheetrock. All other building materials at the site not tested for asbestos (e.g. flooring materials, stucco, roofing materials, vent flues, window putty, insulation, adhesives, caulking, materials inside equipment, etc.) are presumed to contain asbestos until determined otherwise through testing performed in accordance with regulatory requirements. Based on the information contained in the previous asbestos report, IPA recommends an asbestos Operations and Maintenance (O&M) program for the Subject for known and presumed asbestos-containing building materials. A properly designed O&M program is sufficient to maintain the Subject in accordance with current regulatory standards and sound business practice. ACM maintained with an O&M Program can remain in place, provided the ACM is in good condition, and remains intact and undisturbed.

7.6. Radon Gas

Review of the USEPA's Radon Map for San Mateo County, California indicated that the Subject is located in Zone 2, areas with a predicted average indoor radon screening level between 2 and 4 pCi/L (picoCuries per liter of air). Based on the propensity, radon sampling was not performed as a part of this assessment. No further action or investigation is recommended with regard to radon gas levels at the Subject.

7.7. Lead-Based Paint (LBP)

Lead-based paint was identified at the Subject during a previous lead-based paint survey and inspection of the property in 2006 by Advantage Environmental and Safety Services Inc. A copy of the previous lead-based paint survey/assessment report is provided as an attachment. The findings in the report indicate that lead-based paint was detected at the property in ceramic tile and in stucco on the exteriors of the buildings. According to the report, "Lead was detected in most of the items tested that if disturbed may cause a lead hazard." No sampling or testing of the soil was included in the Advantage inspection. According to the Advantage report, "Any item that was tested and found to contain no lead by XRF must be re-sampled and analyzed by Atomic Absorption for Cal-OSHA compliance."

Based on the Advantage report and the pre-1978 construction date of the Subject buildings, all painted surfaces at the Subject are presumed to contain lead-based paint until determined otherwise through further testing performed in accordance with both federal and state regulatory requirements. The presumed lead-based paint at the Subject can be maintained under a Lead Paint Operations and Maintenance (O&M) program that includes remediation by a licensed lead-based paint abatement contractor of all damaged surfaces. A properly developed lead paint O&M Program is sufficient to maintain the property in accordance with regulatory requirements. Prior to repair, renovation, or demolition activities at the site, all painted surfaces should be sampled and tested or handled/removed as LBP in accordance with federal, state and local regulatory requirements.

7.8. Lead in Drinking Water

According to published utility department information from the City of Menlo Park, the water supplied to the Subject is within federal, state, and local drinking water quality standards.

7.9. Facility Storage Tanks and Pipelines (above or below ground)

Visual observations for manways, vent pipes, fill connections, concrete pads, and saw cuts in paved areas did not identify any surface connections or disturbances that would indicate the potential for an underground storage tank (UST) installation at the Subject.

No aboveground storage tanks (ASTs) were observed at the Subject.

The manways and surface caps observed at the Subject were for site services (i.e., domestic water, storm water, and sanitary sewer system).

Furthermore, review of currently installed mechanical equipment, and historical information concerning mechanical equipment, identified the use of alternate fuel sources (i.e., electric, natural gas) thereby eliminating the need for on-site fuel storage at the Subject.

Based on the review of the state list of registered USTs, no USTs are registered for the Subject.

Interviews with persons knowledgeable of the Subject did not identify any evidence of current or historic storage tanks (above or below ground) at the Subject.

Visual observations did not identify any surface markings indicating the existence of subsurface product pipelines at the Subject.

7.10. Surface Areas

Observations during IPA's assessment identified that the Subject lands are graded to provide slope and swale to direct storm water away from the on-site buildings. The land surface of the Subject is relatively flat, with no significant changes in elevation. Surface water flow is in a northerly direction.

Visual observation of the Subject and adjacent properties did not identify any evidence of distressed vegetation, staining, or surface migration of petroleum releases or hazardous materials onto or off the Subject.

Visual observations did not identify any evidence of on-site surface impoundment facilities, pits, dry wells, or dumping of apparent hazardous substances at the Subject.

Visual observations did not identify any surface water features including lagoons, ponds or other bodies of water at the Subject.

Minor oil discharges were observed on the parking areas; however, the discharges are incidental in nature and corrective action is neither practical nor warranted.

7.11. Mold

IPA performed a limited visual assessment for the presence of mold, conditions conducive to mold, and evidence of moisture in readily accessible areas of the subject buildings. No areas of significant mold or moisture were observed. No further action or investigation is recommended regarding mold at the Subject.

This assessment does not constitute a comprehensive mold survey of the Subject. The reported observations and conclusions are based solely on interviews with Subject personnel and conditions as observed in readily accessible interior areas of the Subject on the assessment date.

8. Interviews

8.1. Key Site Manager

Property related personnel were present at the Subject on the day of the site assessment and answered questions to the best of their knowledge regarding Subject site systems and conditions.

A Pre-Survey Questionnaire was completed as a part of this assessment. The Questionnaire was completed by Mr. Michael Atallah through an interview with Ms. Melanie Casperson, the Subject Point of Contact and Property Manager. Information obtained from the Questionnaire has been used in the preparation of this report. Ms. Casperson indicated that she was not aware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products, or notices from any governmental entity regarding possible violation of environmental laws or possible liability related to hazardous substances or petroleum products.

8.2. Owner

IPA submitted an Owner Questionnaire to the user in an effort to identify the owner of the Subject that could be interviewed to provide information regarding proceedings involving the Subject. The Owner Questionnaire was completed with Ms. Noemi Paez, designated representative of the owner. Ms. Paez indicated that she was not aware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products, or notices from any governmental entity regarding possible violation of environmental laws or possible liability related to hazardous substances or petroleum products.

8.3. User

IPA submitted a User Questionnaire in an effort to obtain information regarding proceedings involving the Subject. The User Questionnaire was completed with Ms. Noemi Paez, designated representative of the user. Ms. Paez indicated that she was not aware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products, or notices from any governmental entity regarding possible violation of environmental laws or possible liability related to hazardous substances or petroleum products.

8.4. Occupants

The Subject is a multi-family residential property and contains no non-residential tenants. Therefore, based on the ASTM Standard guidance, residential occupants were not interviewed.

8.5. Past Owners, Operators, and Occupants

No past owners, operators, or occupants of the Subject who would likely have material information regarding the potential for contamination at the Subject were identified.

8.6. Owners Or Occupants of Adjacent or Nearby Property

The Subject was not an abandoned property with evidence of unauthorized uses or uncontrolled access; therefore, interviews were not conducted with adjacent or nearby property owners or occupants.

8.7. Interviews with Others

No other individuals were interviewed as part of this assessment.

9. Regulatory Database Review

Based on review of the regulatory database report, and by cross-referencing name, address, and zip code, IPA concludes that the Subject is listed as a HAZNET site, further discussed below. The area search of the Subject for listed sites identified various sites outlined in the regulatory database report included in the Appendices, Section 11. Information about the listed sites is included below.

IPA also reviewed the unmappable sites in the database report, cross-referencing addresses and site names. Unmappable sites are environmental risk sites that cannot be plotted with confidence, but can be located by zip code or city name. In general, a site cannot be geocoded because of inaccurate or missing location information in the record provided by the agency. Any identified unmappable site within the specified search radii is included below.

The following are some of the databases which were reviewed for this assessment. See the appended regulatory database report for a complete listing of databases reviewed for this assessment:

- **NPL Listing:** The National Priorities (Superfund) List (NPL) is United States Environmental Protection Agency (USEPA's) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.

- **Delisted NPL Listing:** The Delisted NPL database is a listing of sites which have been deleted from the NPL list by the USEPA.

- **RCRA-TSD Facilities Listing:** The USEPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA-TSD database is a compilation by the USEPA of reporting facilities that transport, treat, store or dispose of hazardous waste.

- **RCRA-Corracts Facilities Listing:** The USEPA's Resource Conservation and Recovery Act (RCRA) Corrective Action Sites Listing contains information pertaining to hazardous waste treatment, storage, and disposal facilities (RCRA TSD) which have conducted, or are currently conducting, a corrective action(s) as regulated under RCRA.

- **CERCLIS Listing:** This database is a compilation of sites which the USEPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

- **NFRAP Listing:** This database contains information regarding sites which have been removed from the USEPA CERCLIS database.

- **RCRIS-Generator Listing:** The USEPA identifies and tracks hazardous waste from the point of generation to the point of disposal through the Resource Conservation and Recovery Information System (RCRIS). The RCRIS-Generators database is a compilation by the USEPA of facilities that report hazardous waste generation.

- **Emergency Response Notification System (ERNS):** The ERNS is a national database used to collect information on reported releases of oil or hazardous substances.

- **Federal institutional control registry:** This database contains information on sites with federal institutional controls.

- **Federal engineering control registry:** This database contains information on sites with federal engineering controls.

- **SHWS Listing:** This database is a comprehensive listing of sites which are considered to be a threat to the public health and welfare by the California Department of Toxic Substances Control. Further, this is the ASTM equivalent of a State Hazardous Waste Sites List.

- **SWF Listing:** This database is a comprehensive listing of all State Permitted Solid Waste Landfills.

- **Leaking Underground Storage Tanks:** This database contains a summary of information pertaining to leaking underground storage tank (LUST) sites identified by the state.

- **Underground Storage Tanks:** This database contains a summary of information pertaining to registered underground storage tanks (USTs) identified by the state.

- **State Voluntary Cleanup Sites**: This database contains a listing of sites which are in the State voluntary cleanup program

- **Tribal LUST:** This database contains information on Tribal LUST sites.

- **Tribal UST:** This database contains information on Tribal UST sites.

The following is a discussion of listed sites:

The Gateway, 1345 Willow Rd, Unit F
Mid-Pen Housing, 1321 Willow Rd, Ste C & F
Gateway Apartments, 1345 Willow Rd, Unit 1317A
Gateway Apartments, 1339 Willow Rd
Mid Pen Housing, 1345 Willow Rd
Robert Meyers, 1345 Willow Road, Unit 1321 A&B
Gateway Apartments, 1361 Willow Rd, Apt C
(all Subject property addresses)
Menlo Park, CA 94025
Distance: N/A
Direction: N/A
Database listed on: HAZNET

The subject address is listed seven times on the HAZNET database under the names Robert Meyers, Mid Pen Housing, Mid-Pen Housing, The Gateway, and Gateway Apartments. Information in the HAZNET database identifies the following for each address:

- 1345 Willow Road, Unit F: This listing has three dates listed – 2010, 2009, and 2009. All three listings have a waste category of asbestos-containing waste with amounts of 4, 2, and 2 tons. All three listings identify the disposal method as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID's are CAD982042475 (for two of the listings), and CAD981382732.

- 1321 Willow Road, Ste C&F: This listing is dated 2012 with an unreported waste category, an amount indicating 0.4 tons, and a disposal method identified as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID is CAD981382732.

- 1345 Willow Rd, Unit 1317A: This listing is dated 2013 with an unreported waste category, an amount indicating 0.8 tons, and a disposal method identified as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID is CAD981382732.

- 1339 Willow Road: This listing is dated 2016, with a waste category of asbestos-containing waste, an amount indicating 0.23 tons, and a disposal method identified as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID is CAD981382732.

- 1345 Willow Road: This listing is dated 2013, with an unreported waste category, an amount indicating 0.4 tons, and a disposal method identified as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID is CAD981382732.

- 1345 Willow Road, Unit 1321 A&B: This listing is dated 2011, with a waste category of asbestos-containing waste, an amount indicating 0.4 tons, and a disposal method identified as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID is CAD981382732.

- 1361 Willow Road, Apt C: This listing is dated 2016, with a waste category of asbestos-containing waste, an amount indicating 0.23 tons, and a disposal method identified as "landfill or surface impoundment that will be closed as landfill (to include on-site treatment and/or stabilization)". The TSD EPA ID is CAD981382732.

Review of the available HAZNET information indicates that the Subject generated asbestos-containing waste and other organic solids between 2008 and 2016, and the waste was disposed of in accordance with regulatory requirements. Based on IPA's site survey, and review of the available information, it is IPA's opinion that no further action or investigation is recommended regarding the regulatory review for the Subject site.

Willow Corners LLC, Willow Corners LLC-UST Site

1283 Willow Road

Menlo Park, CA 94025

Distance: Adjacent (this address is located between the two Subject parcels)

Direction: Adjacent to the south of the 1300 block of the Subject beyond the adjacent market

Databases listed on: HAZNET, LUST, San Mateo County

This site is located to the south of the Subject (beyond the adjacent market).

The site is listed as Willow Corners. At the time of IPA's field investigation, this site was observed to be unimproved except for the presence of a concrete pad on the site. It was reported to IPA by the Subject property management that this site was being developed as a police substation.

Information on the LUST databases indicates that this site was a cleanup site with a status of Completed-Case Closed as of 2000. The potential contaminant of concern is listed as gasoline, and the potential media affected is listed as other groundwater (uses other than drinking water).

Information on the San Mateo County database indicates that this site is listed with underground tanks and is a LUST site with a case closed status.

Information on the HAZNET database indicates two listings for the site, both dated 2008. The first listing indicates a waste category of "other empty containers 30 gallons or more," 0.1 tons, and a disposal method of "storage, bulking, and/or transfer off site – no treatment/recovery." The second listing indicates a waste category of "unspecified oil-containing waste," 0.2085 tons, and a disposal method of "other recovery of reclamation for reuse including acid regeneration, organics recovery, etc."

Based on the above HAZNET information indicating that the waste generated at the site was disposed of in accordance with regulatory requirements, and the LUST and San Mateo County information indicating that the site has a case closed status based on a cleanup that was in accordance with regulatory requirements, no further action or investigation is recommended regarding the regulatory review for this site.

Chevron Station #207718, Belle Haven Chevron

1399 Willow Road

Menlo Park, CA 94025

Distance: Adjacent

Direction: North

Databases listed on: EDR US Hist Auto Stations, CA UST, RCRA-SQG, HAZNET, CA CERS HAZ WASTE, CA CERS TANKS, CA CERS, San Mateo County

Although this site is plotted 125 feet from the Subject, it is actually adjacent to the north of the Subject. At the time of IPA's field investigation, this site was observed to be occupied by a Chevron gas station and car wash.

Information on the EDR Historical Auto Stations database indicates that this site has occupied the property since at least 2003. The CA UST database does not identify any Information regarding the tanks located on the property. The RCRA-SQG database identifies that the site is a small-quantity hazardous waste generator. No violations are listed for the site. Information on the HAZNET database indicates four listings for the site, two dated 2017 and two dated 2016. The listings indicate waste categories of "other organic solids," "unspecified organic liquid mixture," and "unspecified oil-containing waste." The disposal methods listed for the waste include "other treatment," "storage, bulking, and/or transfer off site – no treatment/recover," and "metals recovery including restoring, smelting, chemicals, etc." The San Mateo County database indicates that the site generates <27 gal/year, stores motor vehicle fuels or waste only, and is registered with an underground storage tank.

Based on this site's current regulatory status, the absence of reported releases, and its cross gradient relationship to the Subject, no further action or investigation is recommended regarding the regulatory review for this site.

Willow Office Park / Menlo Care Inc.

1350 Willow Road and 1350 – 1390 Willow Road

Menlo Park, CA 94025

Distance: Adjacent

Direction: East Across Willow Road

Databases listed on: CA ENVIROSTOR, CA VCP, RCRA, FINDS, ECHO

The site is plotted 130 feet from the Subject. At the time of IPA's field investigation, this site was observed to be occupied by commercial and office buildings.

According to documentation provided on the ENVIROSTOR Database, Historical uses of the site include helicopter testing and manufacturing, and production of reconnaissance satellites. The site is currently used as a business park. The proponent entered into a Voluntary Cleanup Agreement (VCA) with DTSC in 2018 to address possible contamination including tetrachloroethylene (PCE), trichloroethylene (TCE), and vinyl chloride in soil gas, and TCE and cis 1,2-dichloroethene in groundwater.

A Vapor Intrusion Mitigation Plan, prepared by Cornerstone Earth Group for Peninsula Innovations Partners, LLC and dated April 2, 2018 was observed. Information in the Vapor Intrusion Mitigation Plan identifies that "the developer is in the process of executing a Voluntary Cleanup Agreement (VCA) with the Department of Toxic Substances Control (DTSC) to help address the environmental concerns identified at the site."

The vapor migration plume has been identified, and the identified plume is migrating to the north/northwest.

Based on the identification of the responsible party, the VCA in progress with the DTSC, the documented migration pattern of the VOC plume, the lack of identification of contaminants in the monitoring wells in the direction of the subject property, and the site's cross gradient relationship to the Subject, no further action or investigation is recommended regarding the regulatory review for this site.

Guy's Roofing

831 Hamilton Avenue

Menlo Park, CA

Distance: 299 feet

Direction: North

Databases listed on: LUST

Information on the LUST database indicates that this site was a cleanup site with a status of Completed-Case Closed as of 1997. The potential contaminants of concern are listed as "waste oil, motor, hydraulic, lubricating," and the potential media affected is listed as soil. Based on this site's distance from the Subject, it's down gradient relationship to the Subject, the media affected (soil), and the case closed status, no further action or investigation is recommended regarding the regulatory review for this site.

Review of the regulatory agency database report identified that the remaining sites with possible identified contamination are plotted more than 0.25 mile from the Subject. Based on various factors such as distance, gradient relationship, estimated direction of groundwater flow, and/or current regulatory status, these sites are not anticipated to have negatively impacted the environmental integrity of the Subject.

10. Tier 1 Vapor Encroachment Screen

IPA has completed a Tier 1 Vapor Encroachment Screen of the Subject in accordance with ASTM Standard E 2600-10: Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions.

10.1. Purpose

The purpose of this Tier 1 Vapor Encroachment Screen (VES) is to identify, to the extent feasible pursuant to the procedures presented in the ASTM E 2600-10 standard guide, the potential for a Vapor Encroachment Condition (VEC) to exist at the Subject property.

10.2. Methodology

IPA utilized for this assessment EDR's VEC App to accurately identify and document potential VEC sites within the Subject's Area of Concern (AOC). By using integrated data applications and state-of-the-art analytical tools, EDR's VEC App has been specifically designed to adhere to ASTM E 2600-10. EDR's VEC App performs an initial search of all ASTM E 2600-10 standard government record databases and EDR proprietary historical records related to former dry cleaners, gas stations, and manufactured gas plants within the 1/3 mile maximum distance defined in ASTM E 2600-10 for COC-contaminated sites.

10.3. Results

Subject property: Based on review of environmental records searched by EDR for this Tier 1 VES, IPA concludes that the Subject is not listed as a site where the potential for a vapor encroachment condition exists (the Subject is listed as a hazardous waste generator with no contamination issues on site).

Area of Concern (AOC): The Vapor Encroachment Screen identified four sites within the AOC as follows:

Clark Property
1283 Willow
Menlo Park, CA 94025
Distance: Adjacent
Direction: North
Databases listed on: LUST, San Mateo County

At the time of IPA's field investigation, this site was observed to be unimproved except for the presence of a concrete pad on the site. It was reported to IPA by the Subject property management that this site was being developed as a police substation.

Willow Office Park / Menlo Care Inc.

1350 Willow Road and 1350 – 1390 Willow Road

Menlo Park, CA 94025

Distance: Adjacent

Direction: East Across Willow Road

Databases listed on: CA ENVIROSTOR, CA VCP, RCRA, FINDS, ECHO

The site is plotted 130 feet from the Subject across Willow Road. At the time of IPA's field investigation, this site was observed to be occupied by commercial and office buildings.

According to documentation provided on the ENVIROSTOR Database, Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,2-Dichloroethylene (cis) have been identified at the adjacent property due to the past use of the property for aircraft maintenance and airfield operations.

A Vapor Intrusion Mitigation Plan, prepared by Cornerstone Earth Group for Peninsula Innovations Partners, LLC and dated April 2, 2018 was observed. Information in the Vapor Intrusion Mitigation Plan identifies that "the developer is in the process of executing a Voluntary Cleanup Agreement (VCA) with the Department of Toxic Substances Control (DTSC) to help address the environmental concerns identified at the site."

The vapor migration plume has been identified, and the identified plume is migrating to the north/northwest.

In addition to the above listed adjacent sites, the VES Area of Concern (AOC) also identified the following two dry cleaner sites that are up gradient to and within 1,758 feet of the Subject:

Kitty Cleaners
910 Newbridge
East Palo Alto, CA 94303
Distance: 1,514 feet
Direction: South-southwest
Databases listed on: State and tribal leaking storage tank lists, State and tribal Brownfields sites, Other Ascertainable Records

Information on the CA SLIC database indicates that this site is a Completed – Case Closed site as of 2009. The potential contaminant of concern is listed as PCE and the potential media affected is listed as "other groundwater (uses other than drinking water). Information on the EDR US Hist Cleaners database indicates that this site has been operating since at least 1999.

1193 Willow Road
Menlo Park, CA 94025
Distance: 335 feet
Direction: South-southwest
Databases listed on: EDR US Hist Cleaners

Information on the EDR US Hist Cleaners database indicates that this site has been operating since at least 1999 as Quality Laundry.

10.4. Tier 2 VES

For this Tier 2 VES, IPA performed a review of the files maintained by the California State Water Resources Control Board (SWRCB) San Mateo County Department of Health Services, Environmental Health Division and the California Department of Toxic Substances Control. It is IPA's opinion that adequate information was provided in the files from these three agencies, as discussed in further detail below, to determine that a Vapor Encroachment Condition from the above-listed sites to the Subject can be ruled out. Therefore, IPA does not recommend invasive testing at the Subject.

File Review Results

1283 Willow Road
Menlo Park, CA 94025

During IPA's file review, it was determined that this site also includes the address of 1291 Willow Road and 1224 Carlton Avenue, Menlo Park, CA. For this site, IPA reviewed the following San Mateo County Department of Health Services (SMCDHS) files:

- Subsurface Investigation Work Plan for Vacant Property, Formerly 1283 and 1291 Willow Road, Menlo Park, CA, prepared by Cambria Environmental Technology, Inc. and dated July 15, 1999
- Subsurface Investigation Report for 1283 – 1291 Willow Road, Menlo Park, CA prepared by Cambria Environmental Technology, Inc. and dated October 8, 1999
- County of San Mateo Groundwater Protection Plan, Site Data Sheets dated 2/29/00 and 6/22/00
- Notice of Responsibility from the State Water Resources Control Board to Michael Clark dated 2/25/00
- Well Survey Report for 1283 – 1291 Willow Road, Menlo Park, CA prepared by Cambria Environmental Technology, Inc. and dated May 12, 2000
- San Mateo County Groundwater Protection Program Case Closure Memorandum for 1283 Willow Road dated May 18, 2000
- Case Closure Letters from SMCDHS for 1283 Willow Road dated June 14, 2000
- Email Chain Regarding 1283-1299 Willow Road, Menlo Park, CA, dated March 25, 2008 generated by Deno Milano of the San Mateo County Groundwater Protection Program
- Report for Environmental Soil Sampling and Analysis During Waste Oil Underground Storage Tank Removal, prepared by Sierra Environmental, Inc. and dated April 28, 2008
- Underground Storage Tank System Closure Permit Application for 1283 Willow Road, Menlo Park, CA, dated April 8, 2008
- Underground Storage Tank Closure Inspection Report for 1283 Willow Road, Menlo Park, CA, dated April 14, 2008

According to information contained in the above files, the site was a service station constructed circa 1955 and contained three underground storage tanks: one 4,000 gallon UST; one 6,000 gallon UST, and a 280 gallon waste oil tank. The buildings at the site were demolished in 1978 and the two larger USTs were reported to have been removed. Depth to groundwater in the area of the site is from 8-10 feet below ground surface flowing towards the north/northwest and the Ravenswood Slough. The following summary contains pertinent information in timeline format from the above listed reports and letters. The complete reports and letters are provided as attachments to this Tier 2 VES.

August - October 1999:

- During a subsurface investigation of the site by Cambria Environmental Technology, Inc. (Cambria), Cambria contracted a geophysical survey to determine if the 280 gallon waste oil tank had been removed from the site during the 1978 demolition activities. No evidence of the former waste oil tank was detected during the survey.

- To assess if petroleum hydrocarbons existed beneath the site, Cambria advanced eight Geoprobe soil borings and collected soil and grab groundwater samples from beneath the site.

- Cambria recommended case closure for the site based on the following rationale:
    - No benzene or MTBE were detected in any of the soil or groundwater samples collected. The absence of benzene indicated that there was no likely significant health risks associated with the release. In addition, since no MTBE was detected, it was unlikely that issues related to MTBE's significant solubility and mobility would be a concern at the site;

    - Although gasoline range hydrocarbons were detected in samples located adjacent to the former tankpit, no gasoline range hydrocarbons or additives were detected in soil or groundwater samples collected from down gradient borings. These results indicated that the gasoline range hydrocarbons detected in the former UST area did not migrate significantly down gradient, and may have naturally attenuated beneath the site since the UST removals in 1978;

    - Actual soluble hydrocarbon concentrations in groundwater would likely be orders of magnitude lower if the site groundwater were samples from a permanent monitoring well since grab groundwater samples commonly contain artificially elevated hydrocarbon concentrations.

    - Soil and groundwater samples collected from the boring advanced to characterize the former waste oil tank pit detected no TPHg, BTEX, MTBE, oil and grease, or volatile halocarbons; and

    - Although TPHd and xylenes were detected in down gradient borings, the concentrations were well below the common acceptable regulatory thresholds for diesel and the maximum contaminant level for xylenes.

March - May 2000:

- Cambria conducted a door-to-door well survey to locate water-producing wells within a 700-foot radius from the site. Of the four wells reported during the survey, two wells were previously used for domestic use and were located approximately 660 feet west and cross/up gradient of the site. One abandoned well was reported northwest of the site, and one well was located up gradient of the site, slightly outside of the well survey radius. Based on the well locations and the likely groundwater flow direction, Cambria opined that the residual hydrocarbons at the former gas station would not likely impact water wells within the radius of the well survey. Based on their previous subsurface investigation results and the findings of their door-to-door well survey, Cambria requested regulatory case closure of the site.

- A Case Closure Memorandum prepared by SMCDHS identified that the former gas station site was considered a low-risk groundwater case, and that the site qualified for closure for the following reasons:
    - The leak had been stopped and ongoing sources, including free product, had been removed or remediated.
    - The site had been adequately characterized.
    - The dissolved hydrocarbon plume was not migrating.
    - No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors were likely to have been impacted.
    - The site presents no significant risk to human health.
    - The site presents no significant risk to the environment.

June 2000:

- SMCDHS issued a case closure letter for the former gas station site. The letter confirmed the completion of site investigation and remedial action for the USTs formerly located at the site; however, the SMCDHS stated that contaminated groundwater and less than 20 cubic yards of contaminated soil remain in the subsurface at the site. According to the SMCDHS, should any change in the use of the property, or development of the property, occur which may impact site soil or groundwater, the SMCDHS must be notified.

March - April 2008:

- While preparing the former gas station site for construction and excavating for new footings, a buried 180-gallon waste oil UST was discovered. The fill pipe and the vent pipe were broken off, and the liquid that was in the pipes spilled - the volume was less than one gallon of used motor oil. The impacted soil was isolated and the liquid was absorbed. The tank was full and was not ruptured or leaking. The used motor oil and impacted soil were properly removed and disposed of. The underground storage tank was also properly removed and disposed of. Soil sampling and analysis of the tank pit and soil stockpile was performed by Sierra Environmental, Inc. No additional documentation requiring further action at the site is on file at the SMCDHS.

Willow Office Park / Menlo Care Inc.

1350 Willow Road and 1350 – 1390 Willow Road

Menlo Park, CA 94025

For this site, IPA reviewed Department of Toxic Substances Control (DTSC) files located as follows.

- **RP - Final 254-11-1 Final Phase I ESA Menlo Science Tech Park 01.26.15**
- **RP - Final Facebook Willow Campus - Additional Phase I Figures**
- **RP - Final Appendix B Aerial Photos from PAS**
- **RP - Final Appendix B Aerial Photos from EDR**
- **RP - Final Appendix B Topo Maps**
- **RP - Final Appendix A Database Report**
- **RP - Final Appendix C City Directories**
- **RP - Final Appendix D 1964 Site Plan**
- **RP - Final Appendix E Lab Reports**
- **RP - Final 254-11-8 FINAL The Park Supplemental Phase II - 09.11.17**
- **RP - Final Appendix A - boring logs and sv probe construction**
- **RP - Final Appendix B - Laboratory Analytical Reports**
- **RP - Final 254-11-8 FINAL Menlo Science and Technology Park Additional Phase II 01.31.18**
- **RP - Final Appendix A - Boring Logs**
- **RP - Final Appendix B - Drilling Permits**
- **RP - Final Appendix C - Laboratory Reports**
- **RP - Final Appendix D - Photos**
- **RP - Final The Park Vapor Mitigation Plan 040218**
- **Final DTSC Letter Willow Office Park DTSC Review Site Docs_03.28.19**

A Vapor Intrusion Mitigation Plan, prepared by Cornerstone Earth Group for Peninsula Innovations Partners, LLC and dated April 2, 2018 was observed. Information in the Vapor Intrusion Mitigation Plan identifies that "the developer is in the process of executing a Voluntary Cleanup Agreement (VCA) with the Department of Toxic Substances Control (DTSC) to help address the environmental concerns identified at the site."

The vapor migration plume has been identified, and the identified plume is migrating to the north/northwest.

Based on the identification of the responsible party, the VCA in progress with the DTSC, the migration pattern of the VOC plume, the lack of identification of contaminants in the monitoring wells in the direction of the subject property, and the site's cross gradient relationship to the Subject, no further action or investigation is recommended regarding the regulatory review for this site.

Kitty Cleaners

910 Newbridge

East Palo Alto, CA 94303

For this site, IPA reviewed SWRCB files located on the GeoTracker website as follows.

ACTION TYPE	ACTION	ACTION DATE	RECEIVED / ISSUE DATE
OTHER REGULATORY ACTIONS	Closure/No Further Action Letter	10/30/2009	10/30/2009
RESPONSE - OTHER	Request for Closure	7/9/2009	7/9/2009
CLEANUP ACTION	In Situ Physical/Chemical Treatment (other than SVE)	3/4/2009	
RESPONSE - WORKPLANS	Soil and Water Investigation Workplan	7/25/2008	
RESPONSE - REPORTS	Remedial Investigation Report	7/1/2008	7/1/2008
RESPONSE - OTHER	Correspondence	5/29/2008	5/29/2008
RESPONSE - OTHER	Other Report / Document	5/27/2008	5/27/2008
ENFORCEMENT/ORDERS	Notice of Violation - #20080522	5/22/2008	5/22/2008
RESPONSE - OTHER	Correspondence	4/9/2008	4/9/2008
ENFORCEMENT/ORDERS	Staff Letter - #20080404	4/4/2008	4/4/2008
RESPONSE - REPORTS	Soil and Water Investigation Report	12/1/2007	12/1/2007
RESPONSE - OTHER	Other Report / Document	5/29/2007	6/21/2007
RESPONSE - REPORTS	Soil and Water Investigation Report	8/6/2007	8/6/2007
NOTICES	Notice of Responsibility - #20070410	4/10/2007	4/10/2007
ENFORCEMENT/ORDERS	Staff Letter - #20070409	4/9/2007	4/9/2007
LEAK ACTION	Leak Reported	3/15/2007	
LEAK ACTION	Leak Discovery	1/29/2007	
RESPONSE - OTHER	Conceptual Site Model	1/1/1951	1/1/1951

The following pertinent information was identified during our file review:

According to a *No Further Action/Closure Request for the Kitty's Cleaners, 910 Newbridge Street, East Palo Alto, CA* dated June 2009, prepared by Dave Drilling & Environmental Engineering, Inc. (DDEE), a contaminated soil treatment program was performed at the Kitty's Cleaner and the Former Exxon Mobil Station located at 910 and 904 Newbridge Street, East Palo Alto. The objective of the soil treatment was to reduce the concentration of chemical concerns in shallow soil at a significantly fast pace. The chemicals of concern, specifically PCE and its degraded products, were dry cleaning reagents used at the site. During site investigations, these contaminants were identified in shallow soil approximately one to five feet below ground surface (bgs) at the following locations: the waste chemical storage area; *underneath building structures; and the lateral sewer line located at the former Mobile Service Station.

The soil treatment at the site involved three major tasks:

- Drilling 80 soil borings and installing 80 injection elements
- Injection of chemicals through 80 injection elements
- Collection of soil samples after treatment from one to five feet bgs, at the mid-point between two injection elements, and submission of the soil samples for laboratory analysis.

According to ,DDEE, the contaminated soil was treated to below PCE environmental screening levels (ESLs) in soils at shallow depths. Based on soil post-remedy laboratory analytical results and current regulatory guidelines, DDEE recommended a no further action, case closed status for the site. A Request for Closure Letter was submitted by DDEE to the San Francisco Regional Water Quality Control Board on July 8, 2009.

On October 30, 2009, the San Francisco Regional Water Quality Control Board (SFRWQCB) issued a No Further Action Letter for Kitty's Cleaners, 910 and 904 Newbridge Street, East Palo Alto, CA. The letter confirmed the completion of site investigation and remedial action for the pollutant releases at the site. According to the letter:

- Site investigations conducted in 2007 and 2008 detected the presence of tetrachloroethene (PCE) in soil at the property to a maximum concentration level of 2,700 ug/kg. The remedial investigation defined the extent of soil impacts and also determined that groundwater had not been significantly affected. Based on the data collected at the site, a remedial program was designed and implemented to reduce the level of PCE in soil to levels less than the Water Board's Environmental Screening Levels (ESLs) for residential use of 370 ug/kg.

- The remedial program consisted of using a Fenton's Reaction process (hydrogen peroxide and sulfuric acid) via in-situ injections. A total of 80 injection points ranging in depths from 1-5 feet below grade and spaced at approximately 3 foot intervals were installed at the site. Three specific areas were targeted as part of the remedial program: a) former waste chemical storage area; b) the former Coneley's Mobil Gas Service Station property at 904 Newbridge; and c) area within existing building.

- A total of 257 yd^3 of soil were treated as part of the remedial action. Confirmation sampling indicated significant decreases in concentration of PCE from 280 to 98 ug/kg concentration in the former chemical waste storage area; 2,700 to 110 ug/kg concentration levels at the former Coneley's Mobil Gas Service Station; and from 1,500 to 84 ug/kg inside the building.

Based on the available information and the current land use, the SFRWQCB determined that no further action related to the pollutant releases at the site was required. A note on the No Further Action letter identified that, should the existing cleaners facility be demolished, the soil beneath the facility and around the sewer lines should be further screened to determine if any additional pollution may be present prior to redevelopment of the property. According the SFRWQCB, should additional pollution be present, it would likely be very localized and could be dealt with at that time.

1193 Willow Road

Menlo Park, CA 94025

IPA's additional investigation of this AOC site determined that the site is a laundry facility only and does not engage in dry cleaning activities; therefore, it is IPA's opinion that a vapor encroachment condition from the site can be ruled out.

Conclusion

Based our file reviews and additional investigation of the sites located within the Subject's AOC, it is IPA's opinion that a Vapor Encroachment Condition from the sites to the Subject can be ruled out. IPA recommends no further action or investigation related to this Tier 2 Vapor Encroachment Screening.

11. Adjacent Properties

Properties in the vicinity of the Subject include residential and commercial development including a gas station and a police substation under construction. The following properties adjacent to the Subject were observed:

North

The Subject is bordered to the north by a Chevron gas station facility and car wash.

East

The Subject is bordered to the east by Willow Road, beyond which is commercial and residential development,

South

The Subject is bordered to the south by a market.

West

The Subject is bordered to the west by single-family residential development.

Based on observations and available regulatory information, the remaining adjacent property uses are not anticipated to adversely impact the environmental integrity of the Subject.

12. Appendices

APPENDIX A: Photographic Documentation

APPENDIX B: Maps and Aerial Photographs

APPENDIX C: Questionnaires

APPENDIX D: Regulatory Database Report

APPENDIX E: Supporting Documentation

APPENDIX F: Resumes

APPENDIX A:
Photographic Documentation

1. Typical building-mounted signage.

2. Typical asphalt-paved drive and parking area.

3. Typical asphalt-paved drive and parking area.

4. Typical asphalt-paved drive and parking area.

5. Typical asphalt-paved drive and parking area.

6. Typical asphalt-paved drive and parking area.

7. Typical asphalt-paved drive and parking areas.

8. Typical asphalt-paved drive and parking areas.

9. Typical carport structure.

10. Typical carport structure.

11. Typical concrete masonry unit trash enclosure.

12. Typical asphalt and concrete paving.

13. Typical landscaping.

14. Typical landscaped and concrete-paved courtyard.

15. Typical concrete-paved courtyard.

16. Typical landscaping and concrete paving.

17. Tot lot area.

18. Mailboxes.

19. Typical pole-mounted lighting.

20. Typical site drainage.

21. Typical site drainage.

22. Typical building exteriors.

23. Typical building exteriors.

24. Typical building exteriors.

25. Typical building exteriors.

26. Typical building exteriors.

27. Typical building exteriors.

28. Typical building exteriors.

29. Typical building exteriors.

30. Typical building exteriors.

31. Typical building exteriors.

32. Typical building exteriors.

33. Typical building exteriors.

34. Typical building exteriors.

35. Typical wood-framed stairs with wood treads.

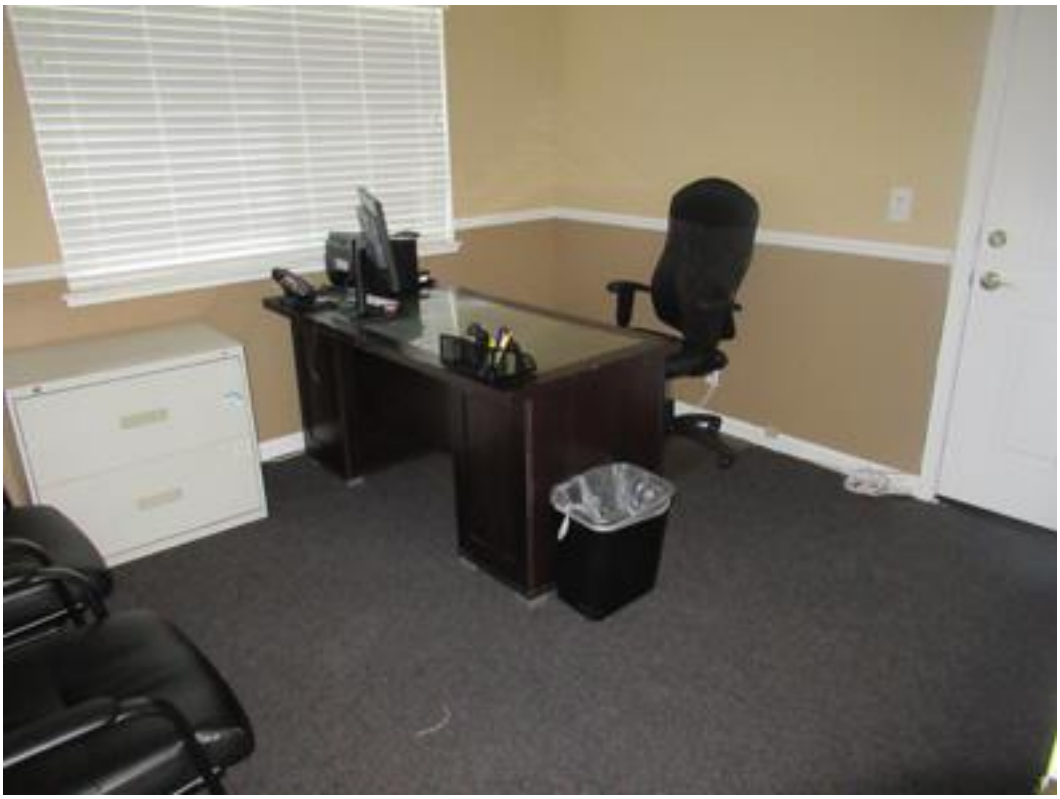
36. Typical steel-framed stairs with precast concrete treads.

37. Typical upper-level walkway.

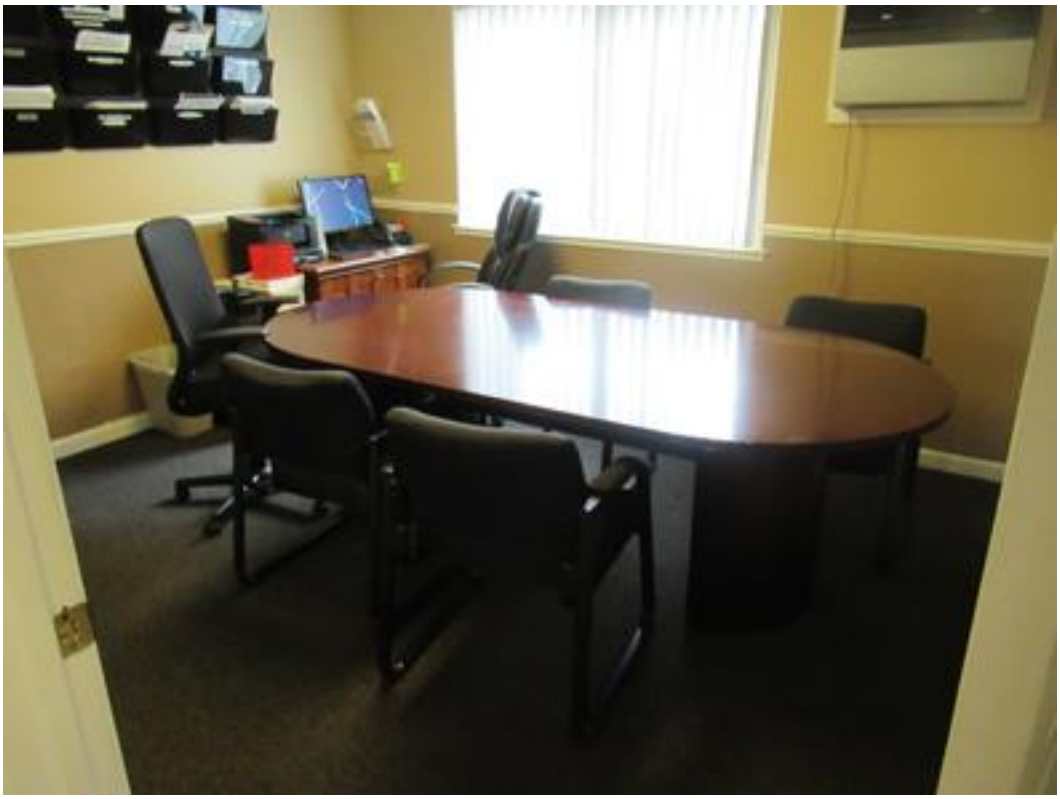
38. Typical asphaltic composition shingle roofing.

39. Entrance to the common area leasing office.

40. Typical interiors at the common area leasing office.



41. Typical interiors at the common area leasing office.



42. Typical interiors at the common area leasing office.

43. Typical interiors at the common area leasing office.

44. Typical interiors at the common area leasing office.

45. Typical break room interiors at the common area leasing office.

46. Typical restroom provided at the common area leasing office.

47. Typical restroom provided at the common area leasing office.

48. Typical restroom provided at the common area leasing office.

49. Entrance to the common area laundry room.

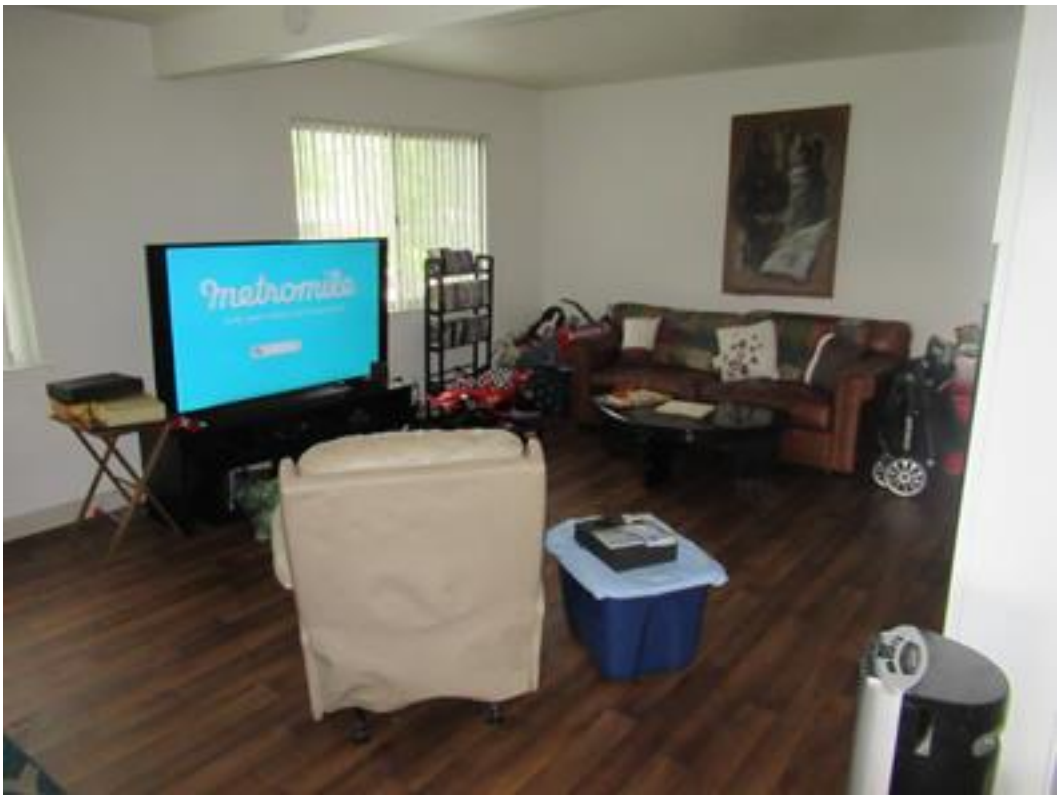
50. Typical interiors at the common area laundry rooms.

51. Typical interiors at the common area laundry rooms.

52. Entrance to the maintenance shop and maintenance garage.

53. Typical unit entrance.

54. Typical living area.



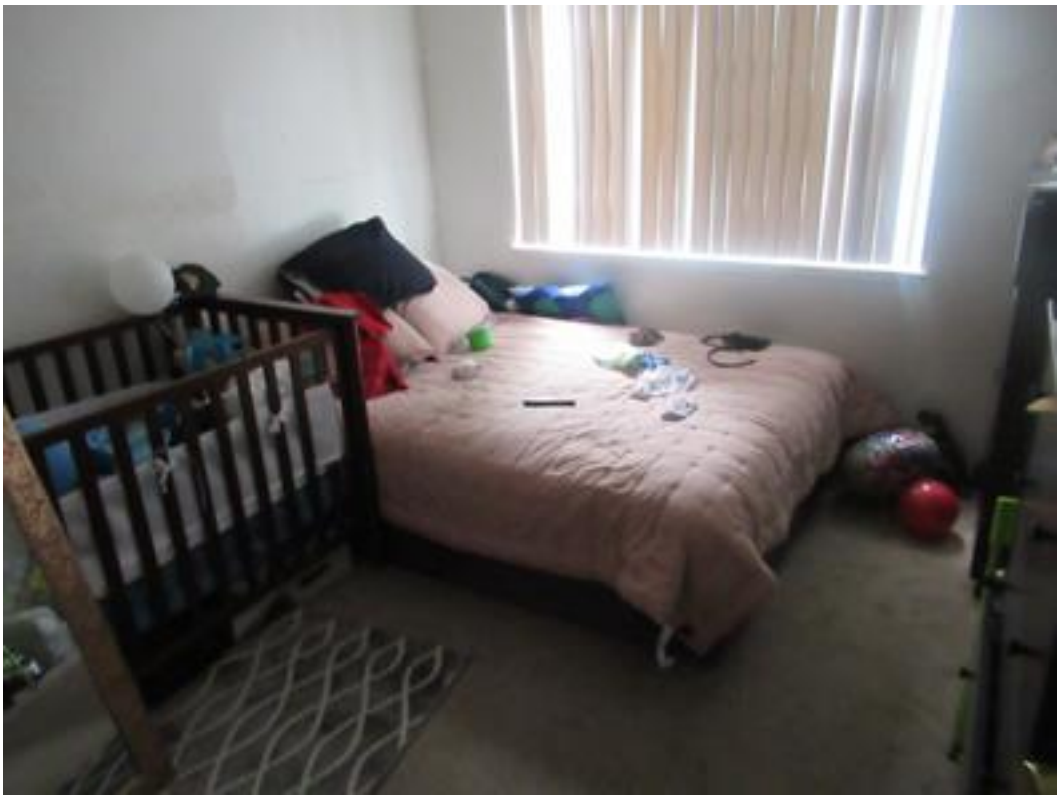
55. Typical living area.

56. Typical kitchen.

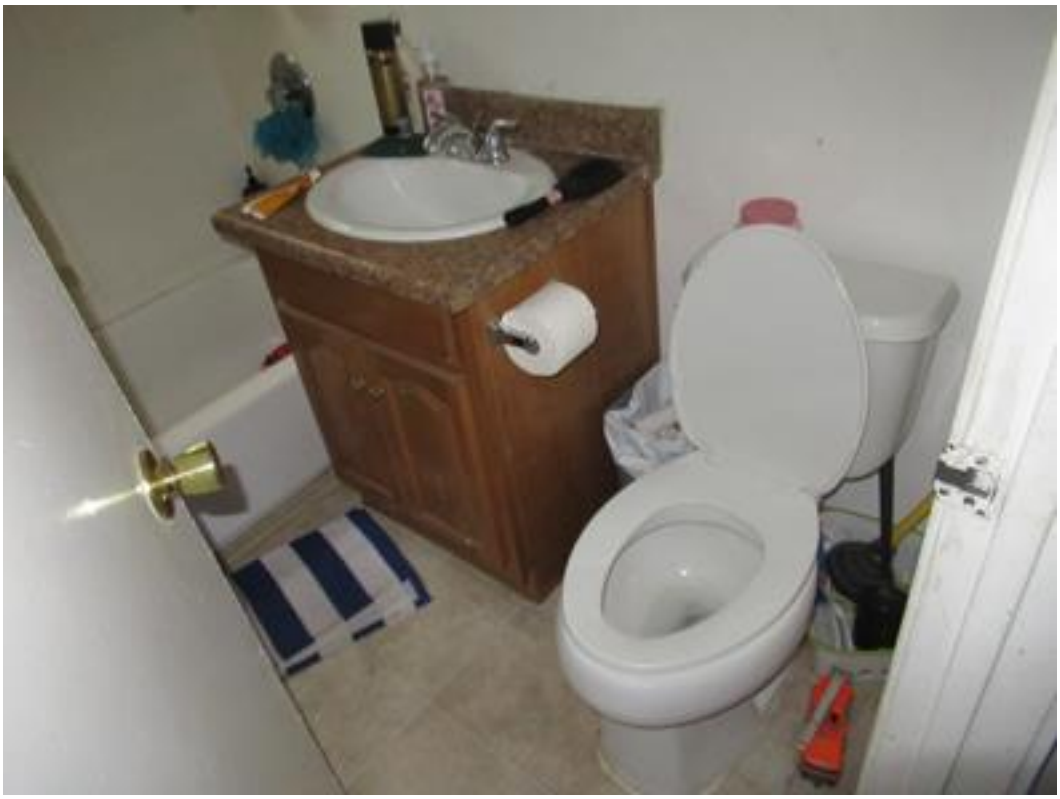
57. Typical kitchen.

58. Typical kitchen.

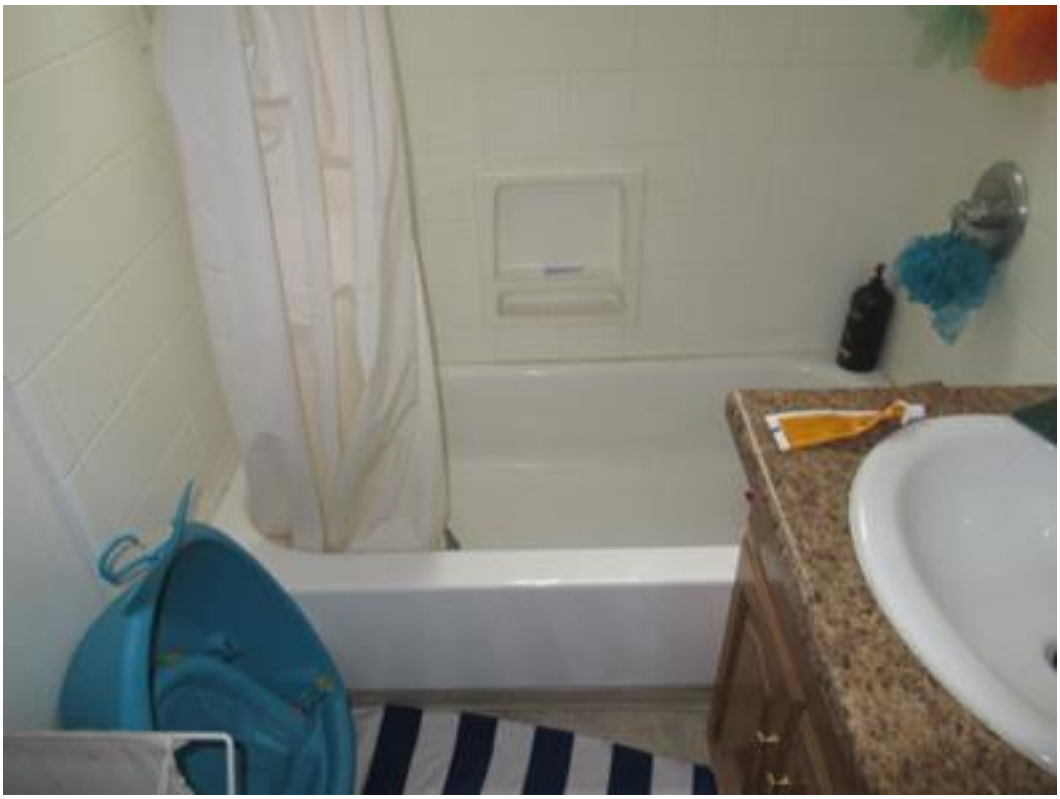
59. Typical kitchen.



60. Typical bedroom.



61. Typical bathroom.



62. Typical bathroom.

63. Typical bathroom ventilation fan.

64. Typical gas meters.

65. Typical electric meters.

66. Typical subterranean electrical transformer.

67. Typical electrical subpanel.

68. Gas-fired water heater provided for the common area leasing office and laundry room.

69. Typical gas-fired water heaters.

70. Typical through-wall air conditioner provided at the common area leasing office.

71. Typical thermostat.

72. Typical gas-fired wall heater.

73. Typical fire extinguisher.

74. Typical fire hydrant.

75. Typical smoke detector.

76. Market building adjacent to the south of the subject property.

77. Ivy Drive adjacent to the south of the subject property.

78. Vacant lot and concrete pad (reported to be for future police substation) adjacent to the south of the subject property across Ivy Drive.

79. Willow Road adjacent to the east of the subject property.

80. High school adjacent to the east of the subject property across Willow Road.

81. Typical office building adjacent to the east of the subject property across Willow Road.

82. Typical office building adjacent to the east of the subject property across Willow Road.

83. Typical office building adjacent to the east of the subject property across Willow Road.

84. Typical single-family residential properties adjacent to the west of the subject property.

85. Typical single-family residential properties adjacent to the west of the subject property.

86. Gas station adjacent to the north of the subject property.

APPENDIX B:
Maps and Aerial Photographs

The Gateway Gardens Apartments

1317 - 1345 Willow Road

Menlo Park, CA 94025

Inquiry Number: 5654286.4

May 16, 2019

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

05/16/19

Site Name:

The Gateway Gardens Apartm
1317 - 1345 Willow Road
Menlo Park, CA 94025
EDR Inquiry # 5654286.4

Client Name:

Integrated Property Analysis
550 West Vista Way Suite 212
Vista, CA 92083
Contact: Michael Atallah

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Integrated Property Analysis were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: NA

Coordinates:

Latitude:	37.477617 37° 28' 39" North
Longitude:	-122.152572 -122° 9' 9" West
UTM Zone:	Zone 10 North
UTM X Meters:	574927.29
UTM Y Meters:	4148195.28
Elevation:	9.43' above sea level

Maps Provided:

2012	1947
1996, 1997, 1999	1943
1994, 1995	1902
1973	1899
1968	1897
1961	
1953	
1948	

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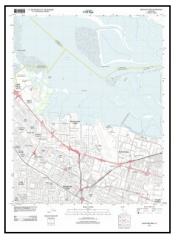
Topo Sheet Key

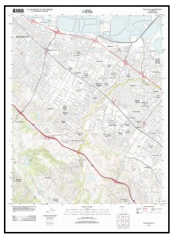
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Mountain View
2012
7.5-minute, 24000

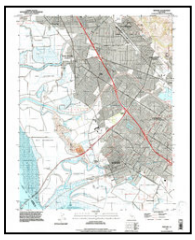
Newark
2012
7.5-minute, 24000



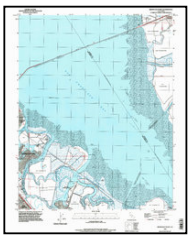
Palo Alto
2012
7.5-minute, 24000

Redwood Point
2012
7.5-minute, 24000

1996, 1997, 1999 Source Sheets

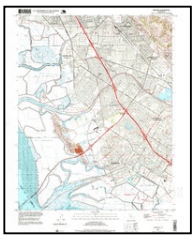


Newark
1996
7.5-minute, 24000
Aerial Photo Revised 1993

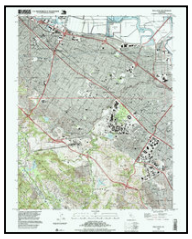


Redwood Point
1996
7.5-minute, 24000
Aerial Photo Revised 1993

Mountain View
1997
7.5-minute, 24000
Aerial Photo Revised 1997



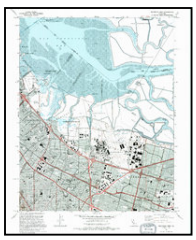
Newark
1997
7.5-minute, 24000
Aerial Photo Revised 1997



Palo Alto
1999
7.5-minute, 24000
Aerial Photo Revised 1999

1994, 1995 Source Sheets

Palo Alto
1994
7.5-minute, 24000
Aerial Photo Revised 1991



Mountain View
1995
7.5-minute, 24000
Aerial Photo Revised 1991

Topo Sheet Key

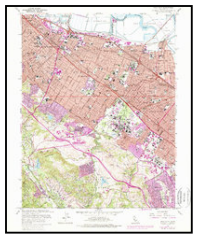
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1973 Source Sheets

Newark
1973
7.5-minute, 24000
Aerial Photo Revised 1973

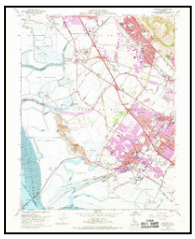
Redwood Point
1973
7.5-minute, 24000
Aerial Photo Revised 1973

Mountain View
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Palo Alto
1973
7.5-minute, 24000
Aerial Photo Revised 1973

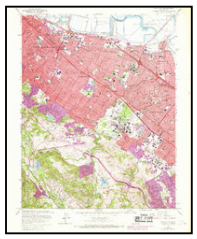
1968 Source Sheets



Newark
1968
7.5-minute, 24000
Aerial Photo Revised 1968

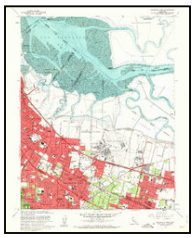
Redwood Point
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Mountain View
1968
7.5-minute, 24000
Aerial Photo Revised 1968

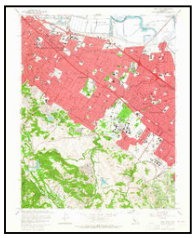


Palo Alto
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1961 Source Sheets

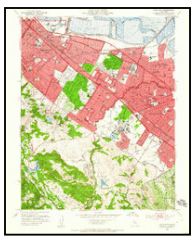


Mountain View
1961
7.5-minute, 24000
Aerial Photo Revised 1960



Palo Alto
1961
7.5-minute, 24000
Aerial Photo Revised 1960

1953 Source Sheets



Palo Alto
1953
7.5-minute, 24000
Aerial Photo Revised 1948

Mountain View
1953
7.5-minute, 24000
Aerial Photo Revised 1948

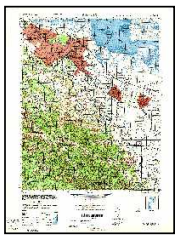
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1948 Source Sheets

Palo Alto
1948
15-minute, 62500
Aerial Photo Revised 1948

1947 Source Sheets



PALO ALTO
1947
15-minute, 50000

1943 Source Sheets

Palo Alto
1943
15-minute, 62500
Aerial Photo Revised 1940

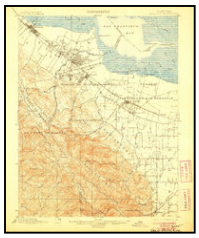
1902 Source Sheets

Santa Cruz
1902
30-minute, 125000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1899 Source Sheets



Palo Alto
1899
15-minute, 62500

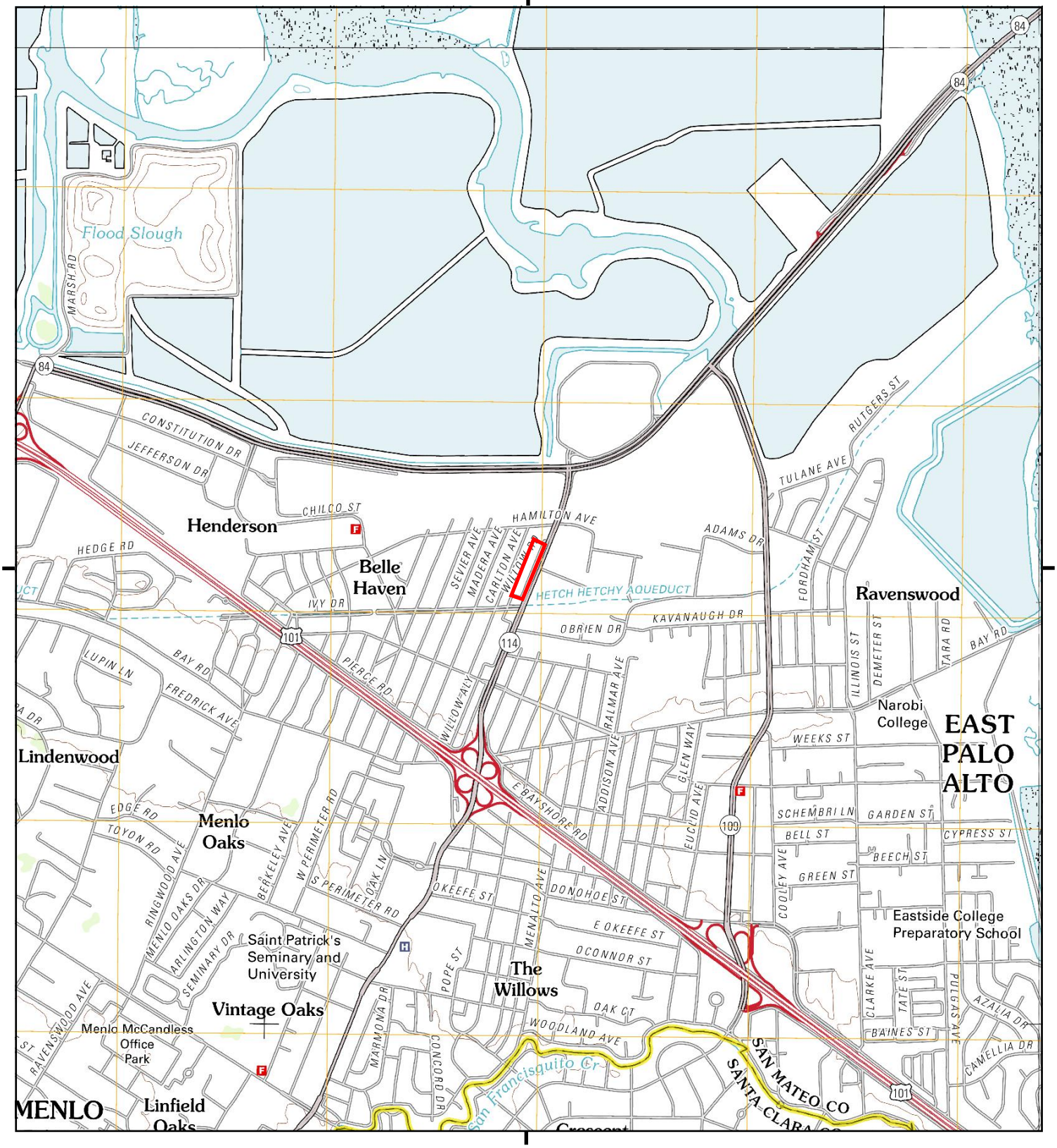
Haywards
1899
15-minute, 62500

1897 Source Sheets

Palo Alto
1897
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

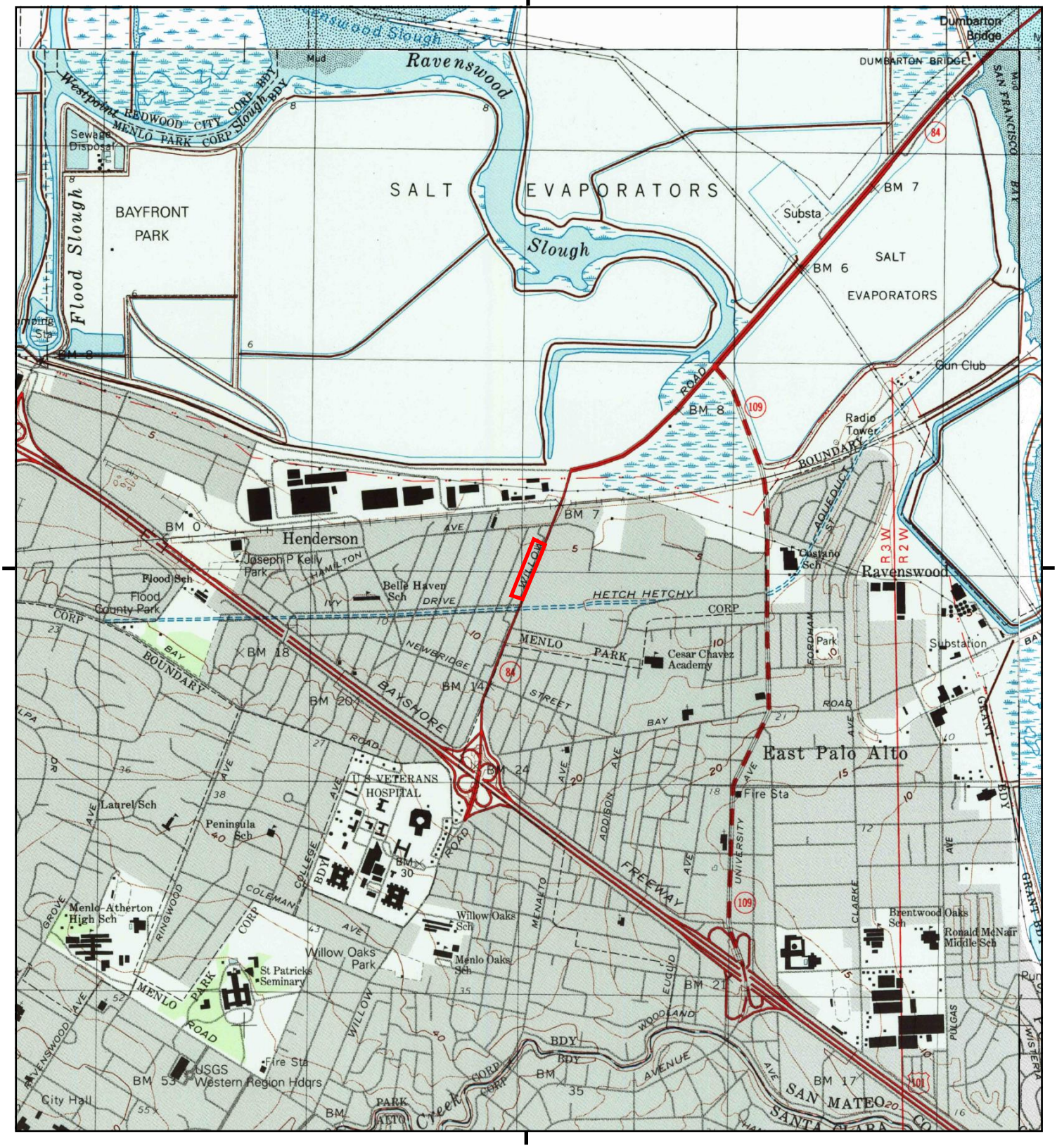
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 2012, 7.5-minute
N, Redwood Point, 2012, 7.5-minute
NE, Newark, 2012, 7.5-minute
SE, Mountain View, 2012, 7.5-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

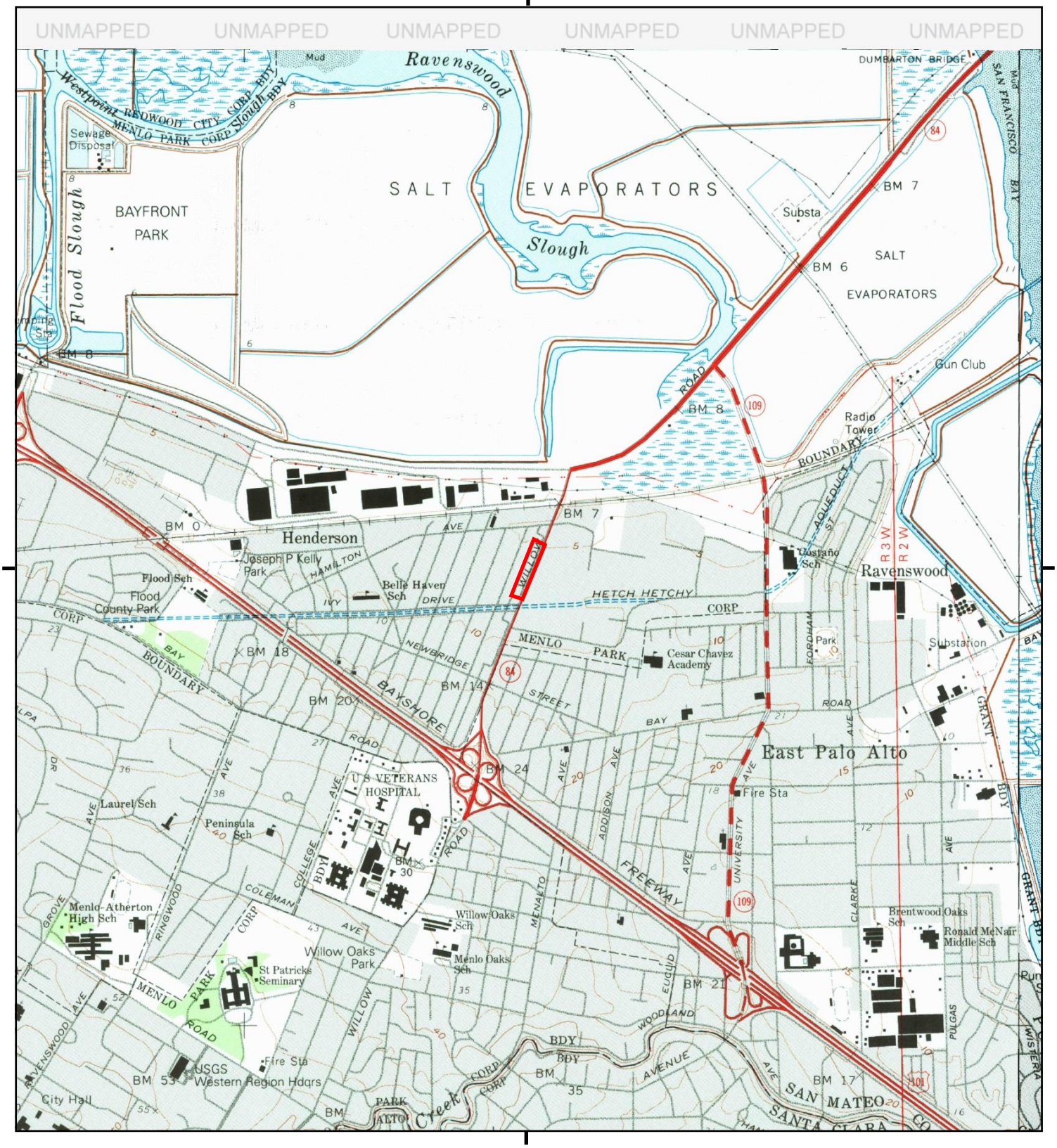
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1999, 7.5-minute
N, Redwood Point, 1996, 7.5-minute
NE, Newark, 1996, 7.5-minute
SE, Mountain View, 1997, 7.5-minute
NE, Newark, 1997, 7.5-minute

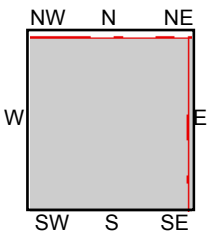
SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

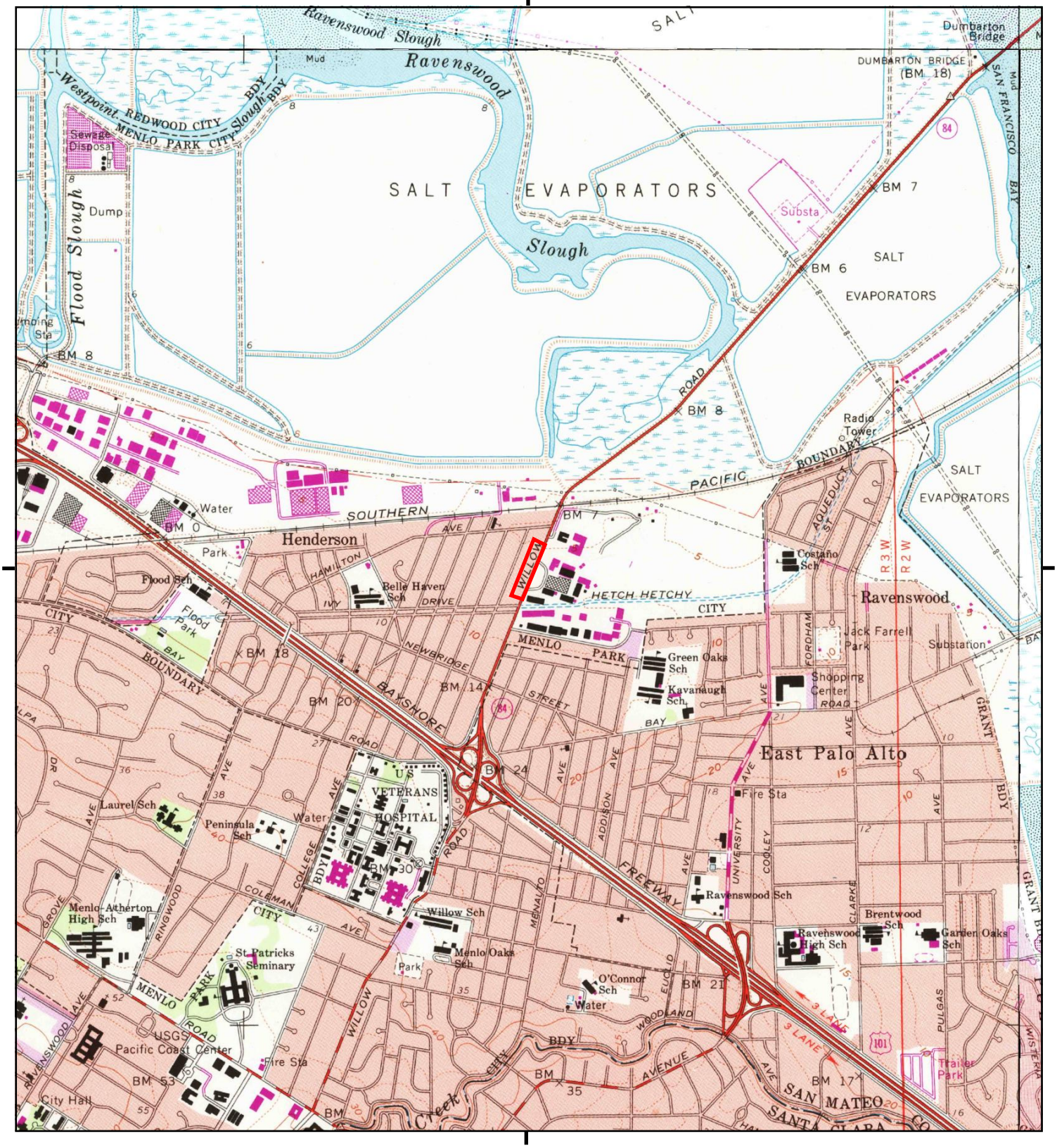
0 Miles 0.25 0.5 1 1.5



TP, Palo Alto, 1994, 7.5-minute
SE, Mountain View, 1995, 7.5-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

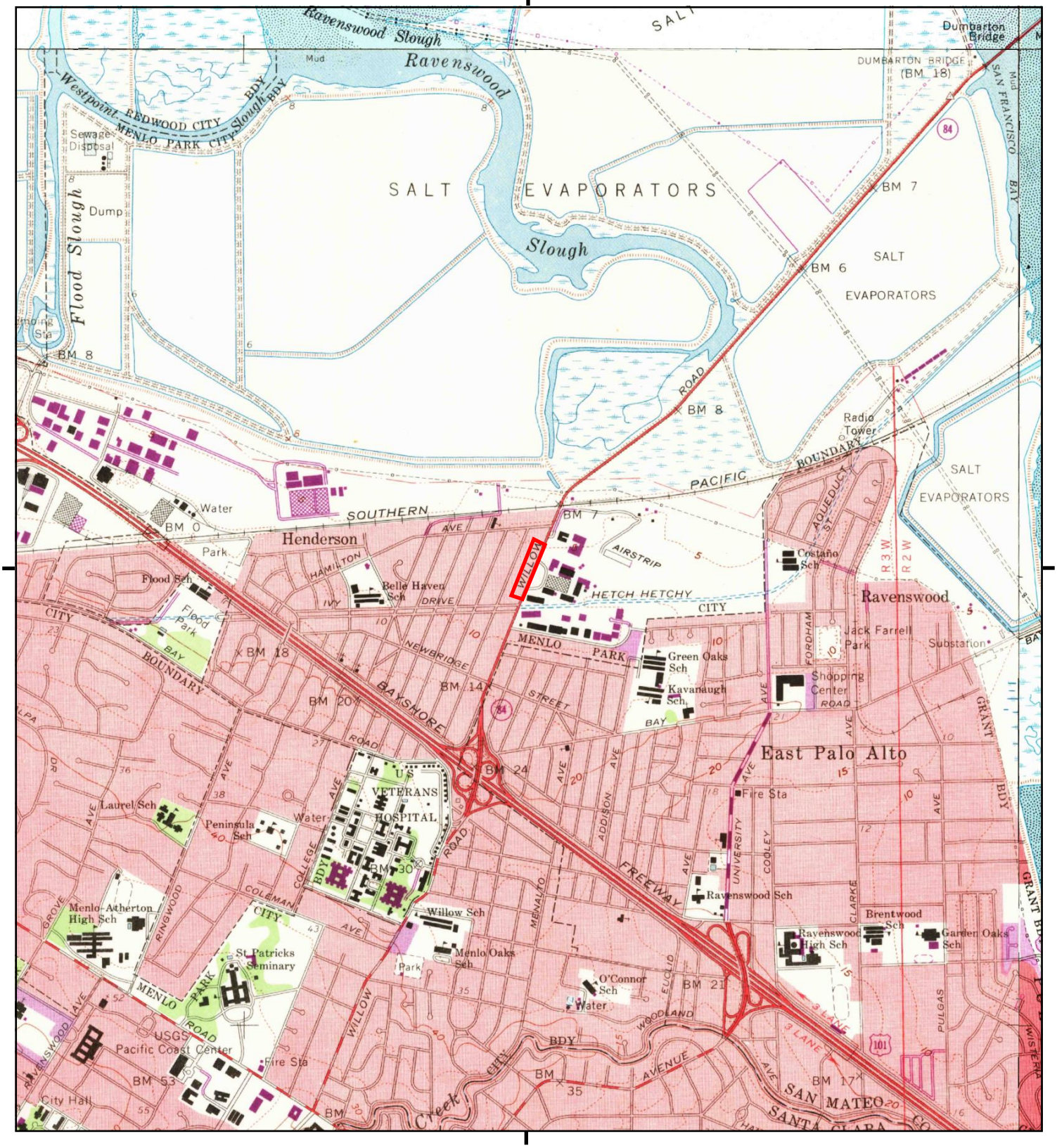
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1973, 7.5-minute
N, Redwood Point, 1973, 7.5-minute
NE, Newark, 1973, 7.5-minute
SE, Mountain View, 1973, 7.5-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

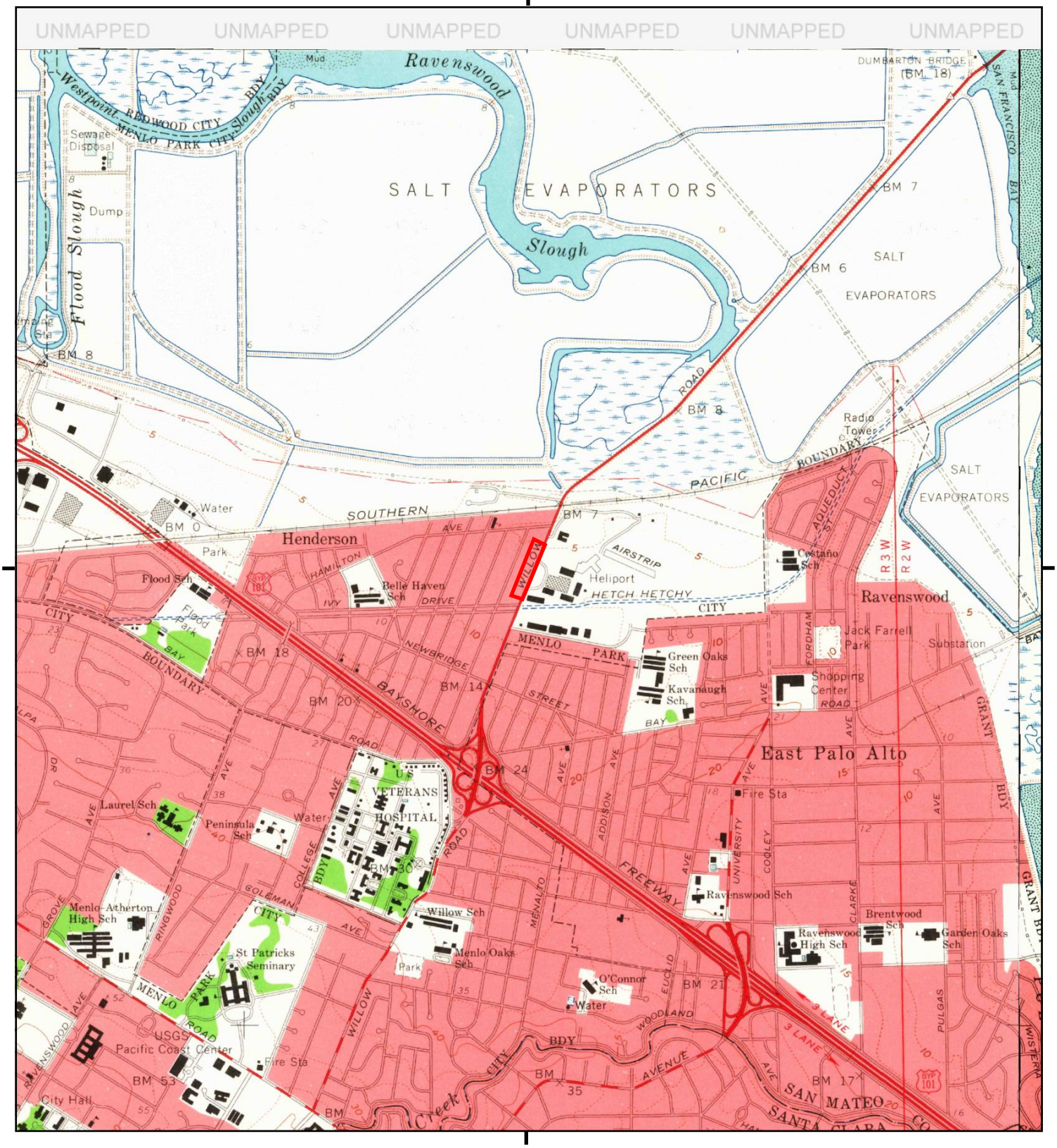
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1968, 7.5-minute
N, Redwood Point, 1968, 7.5-minute
NE, Newark, 1968, 7.5-minute
SE, Mountain View, 1968, 7.5-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

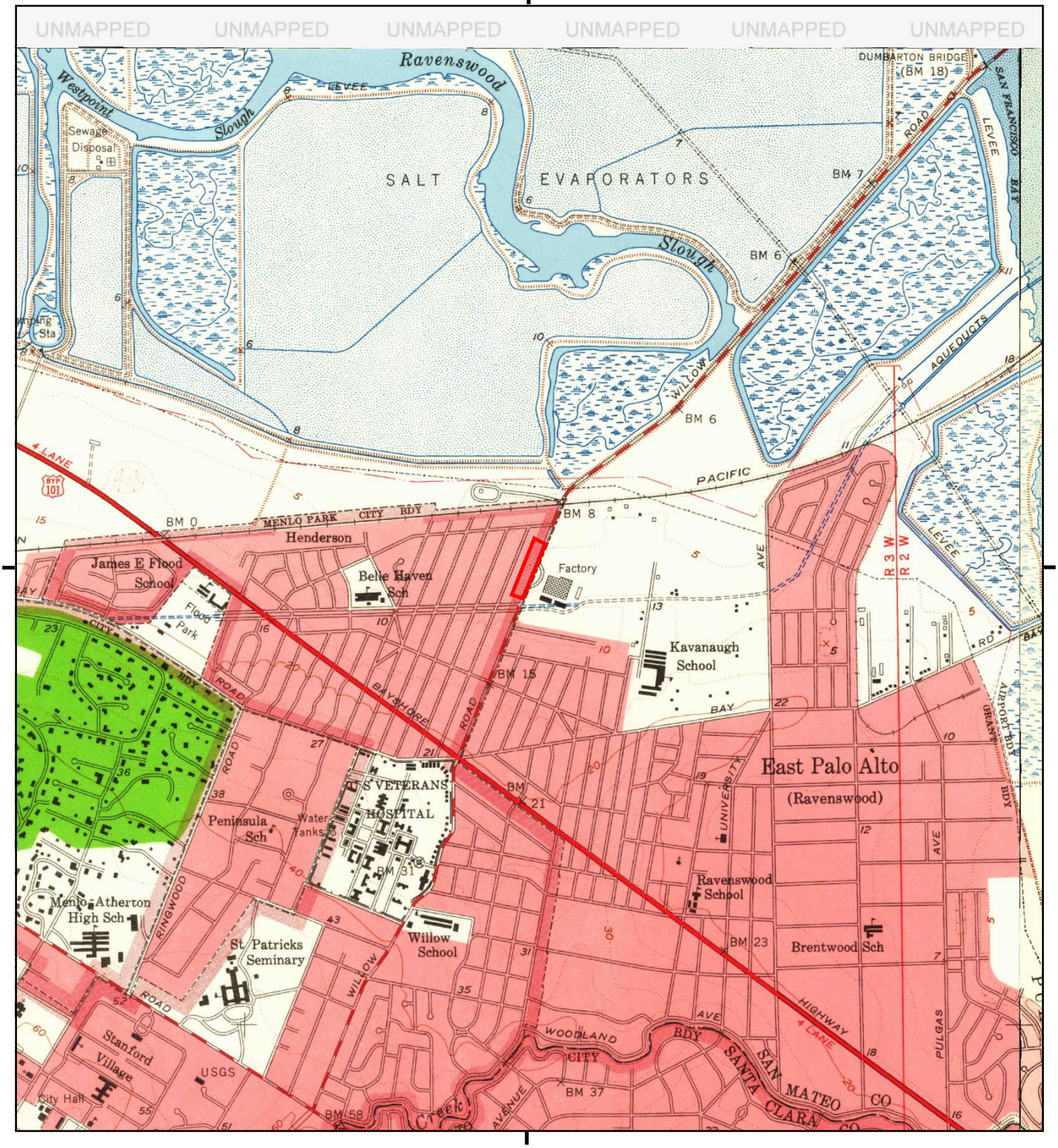
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1961, 7.5-minute
SE, Mountain View, 1961, 7.5-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

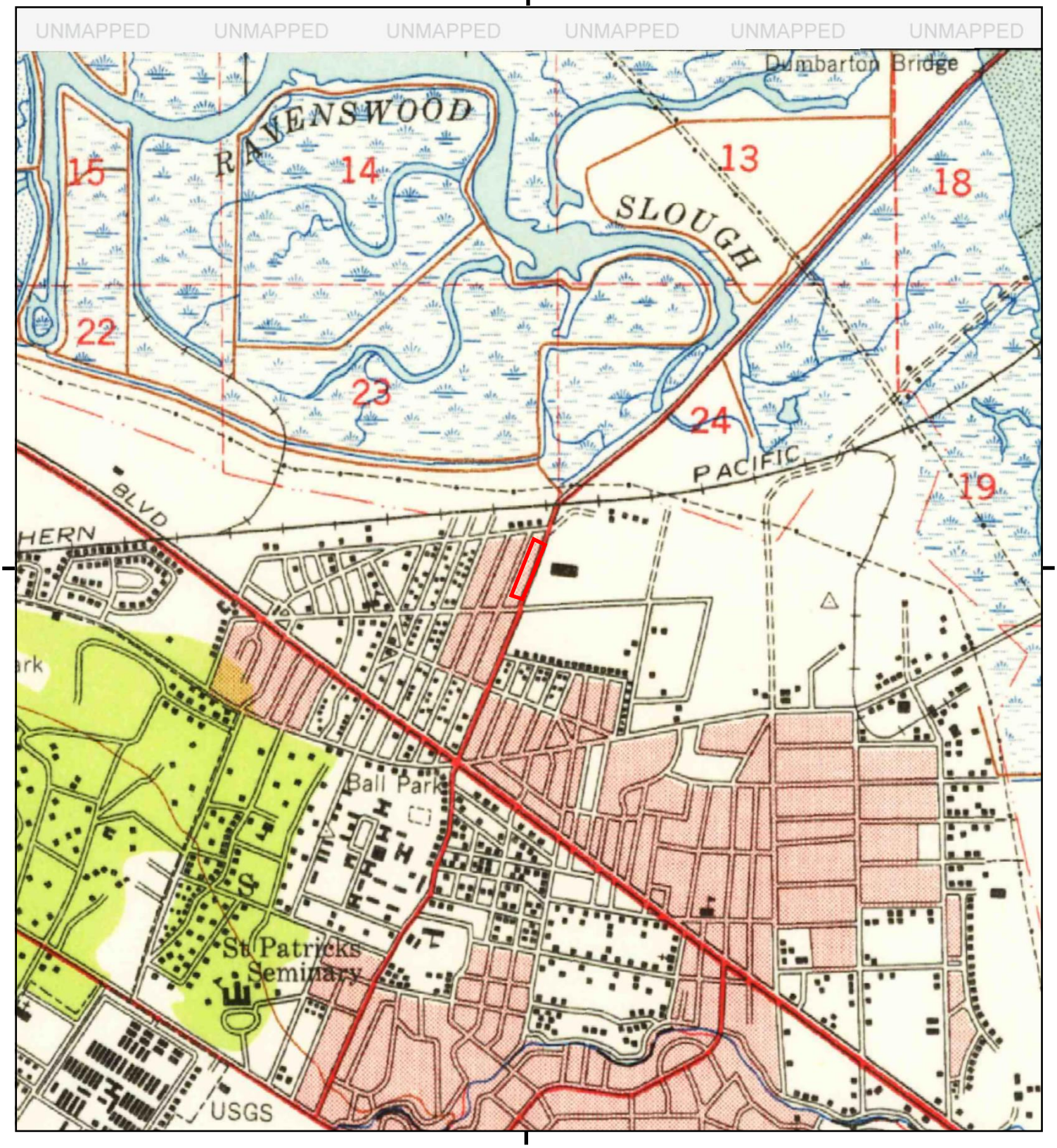
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1953, 7.5-minute
SE, Mountain View, 1953, 7.5-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

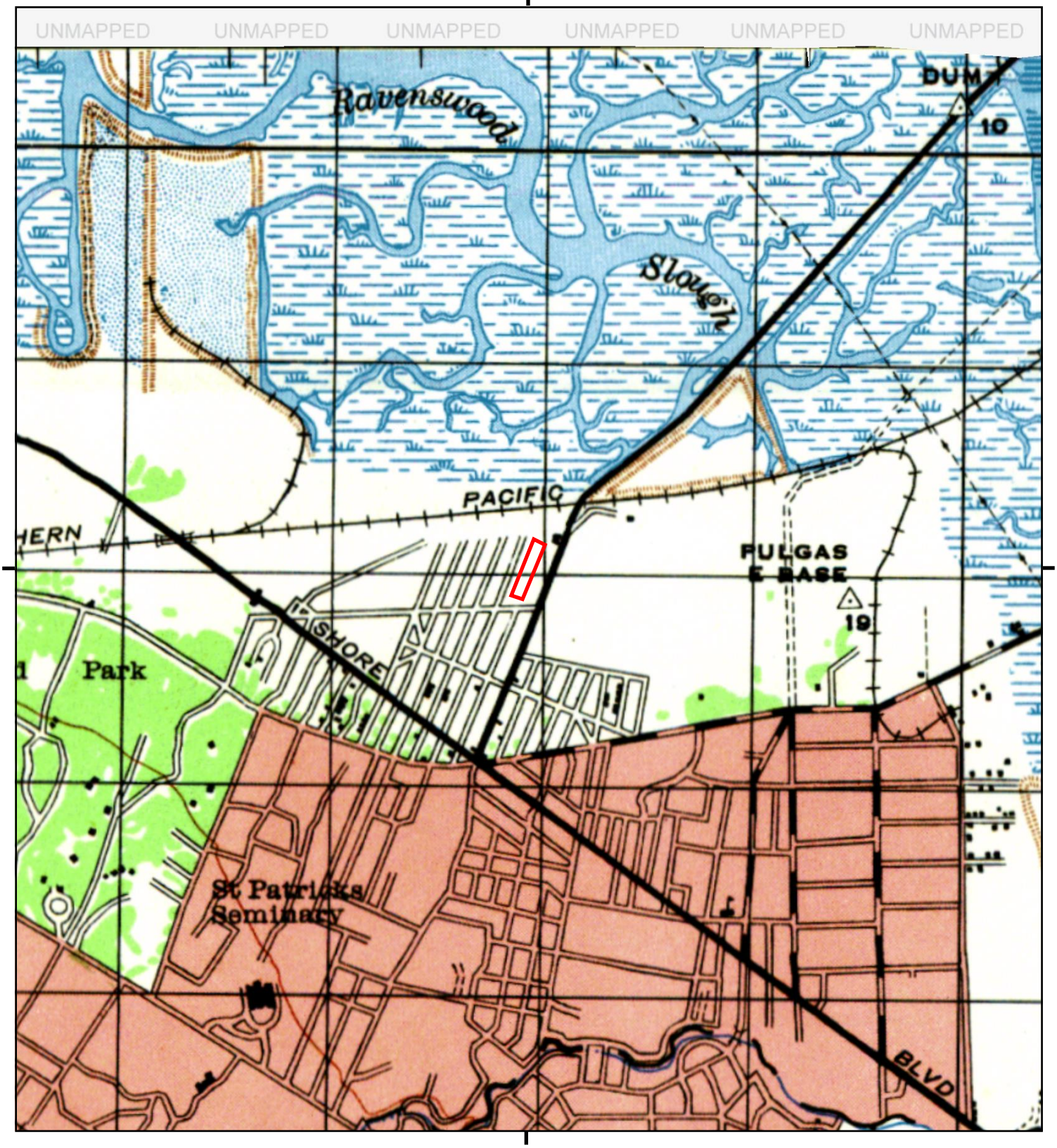
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1948, 15-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

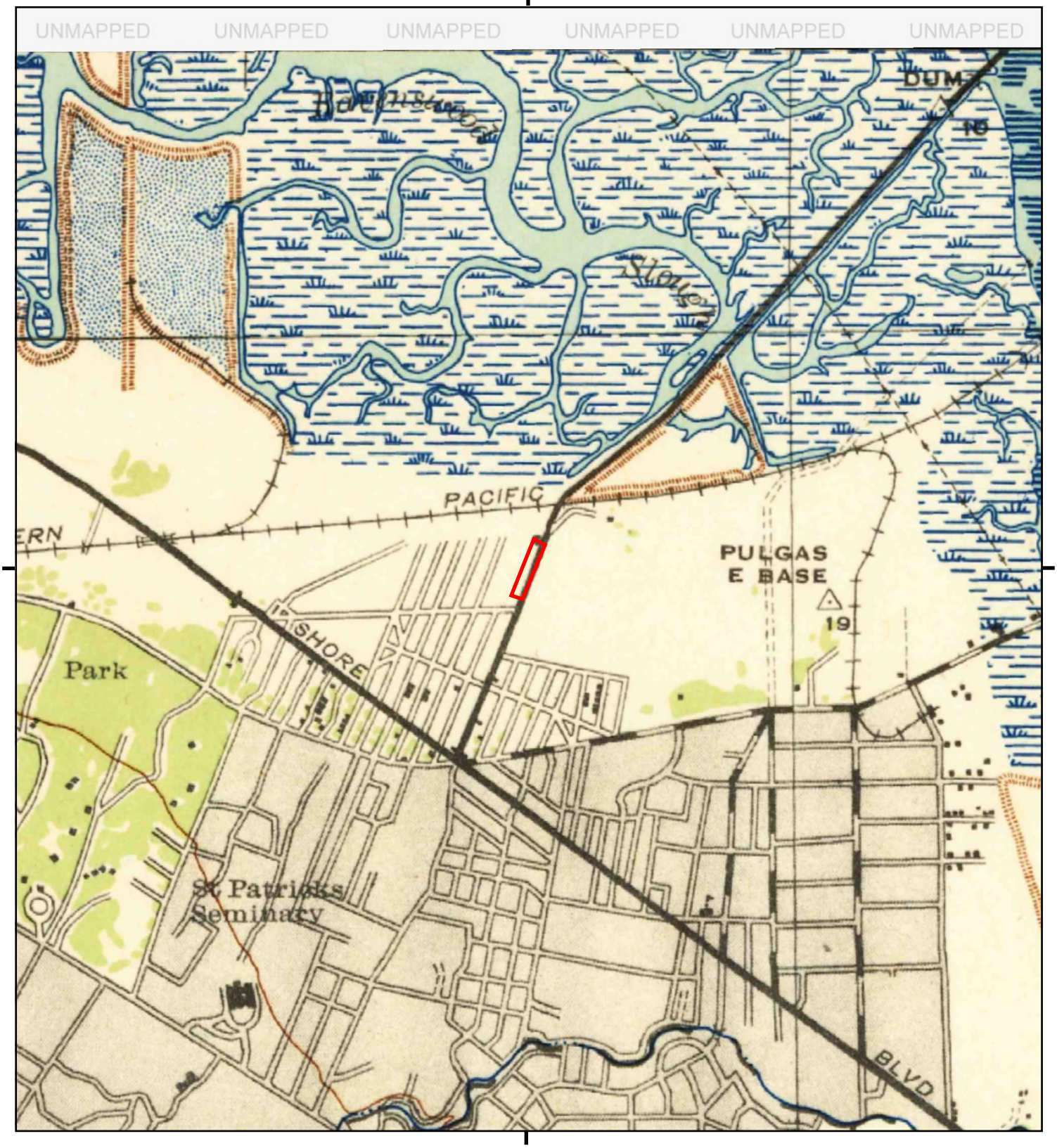
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, PALO ALTO, 1947, 15-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

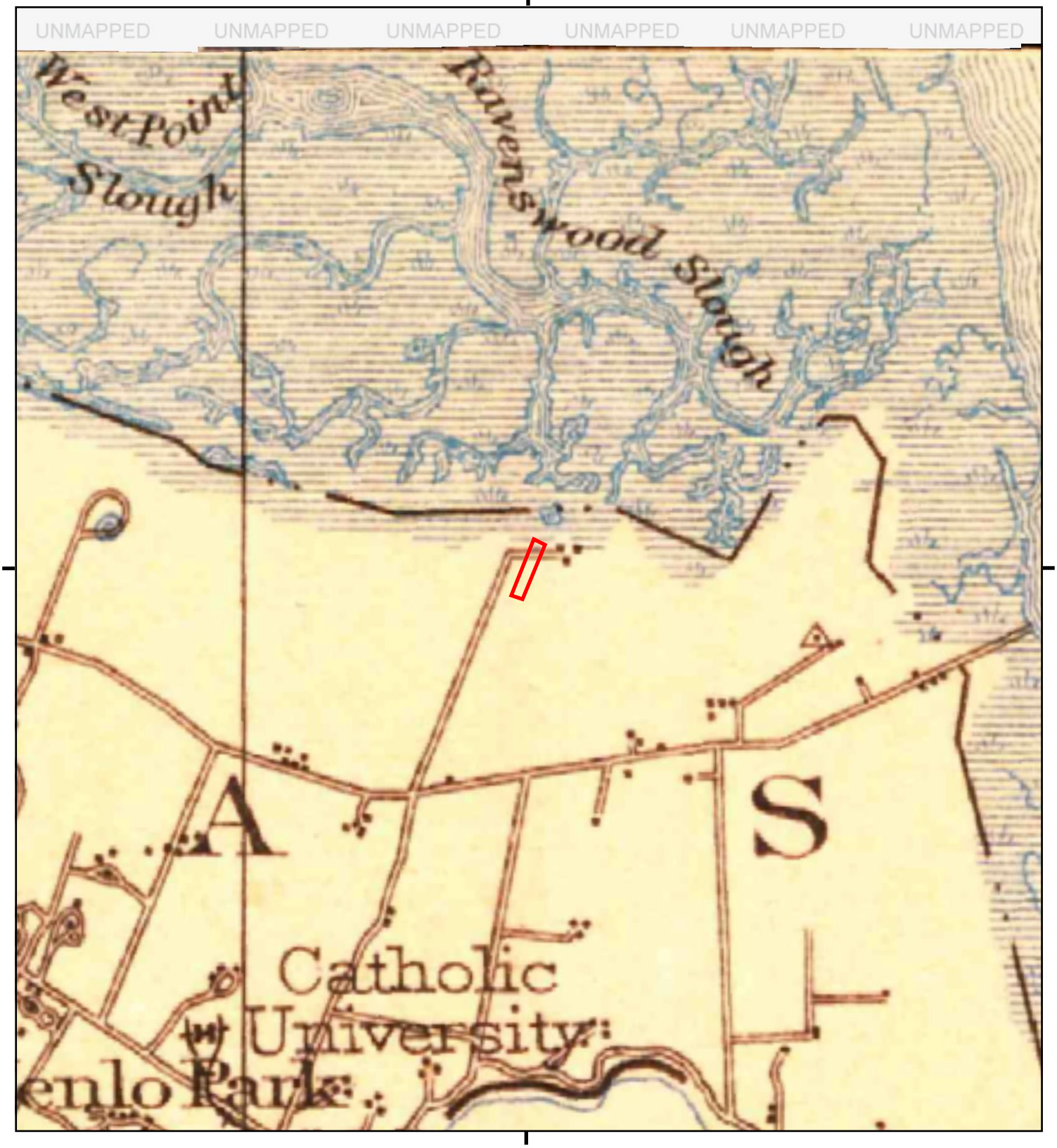
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1943, 15-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

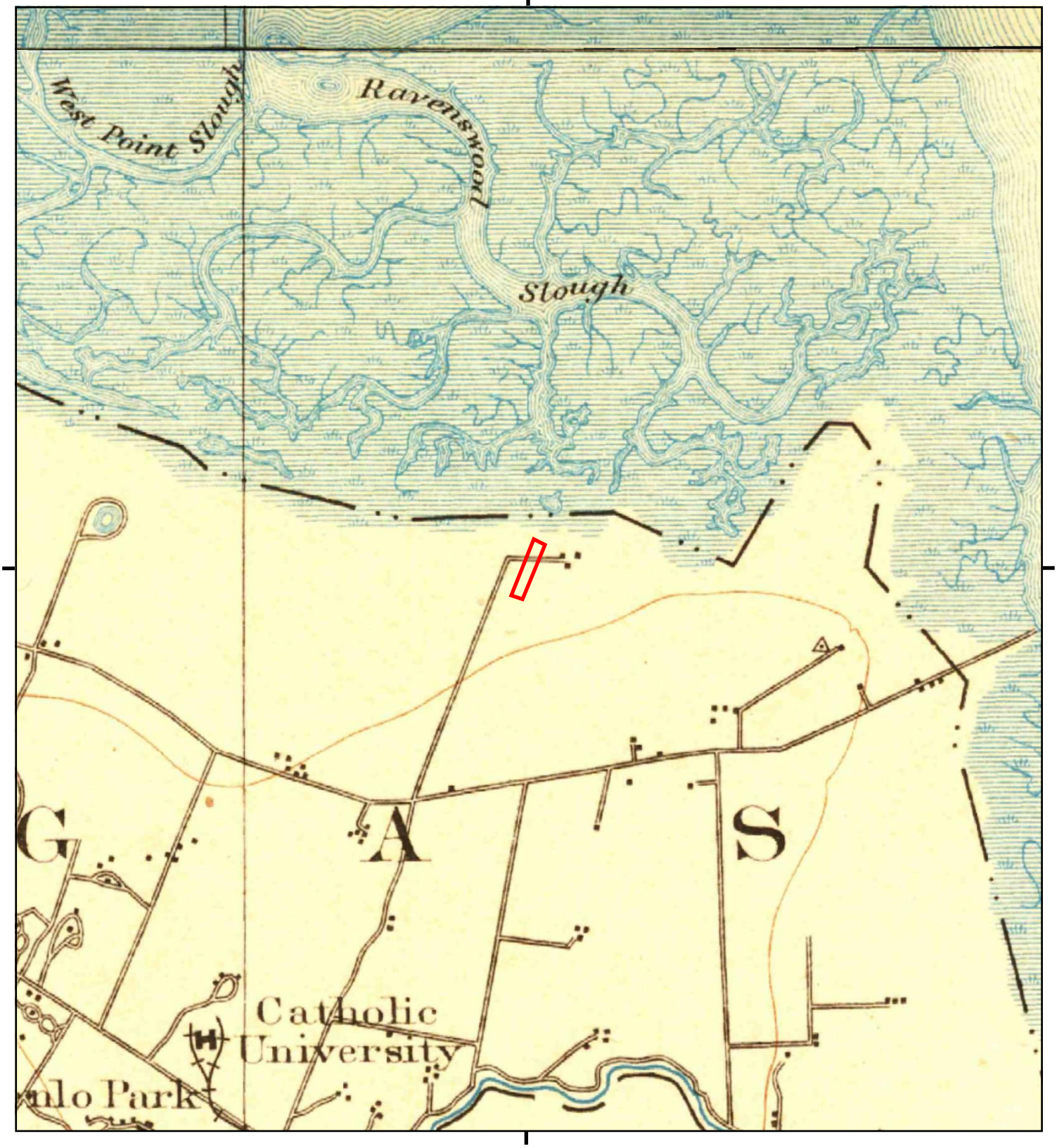
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Santa Cruz, 1902, 30-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

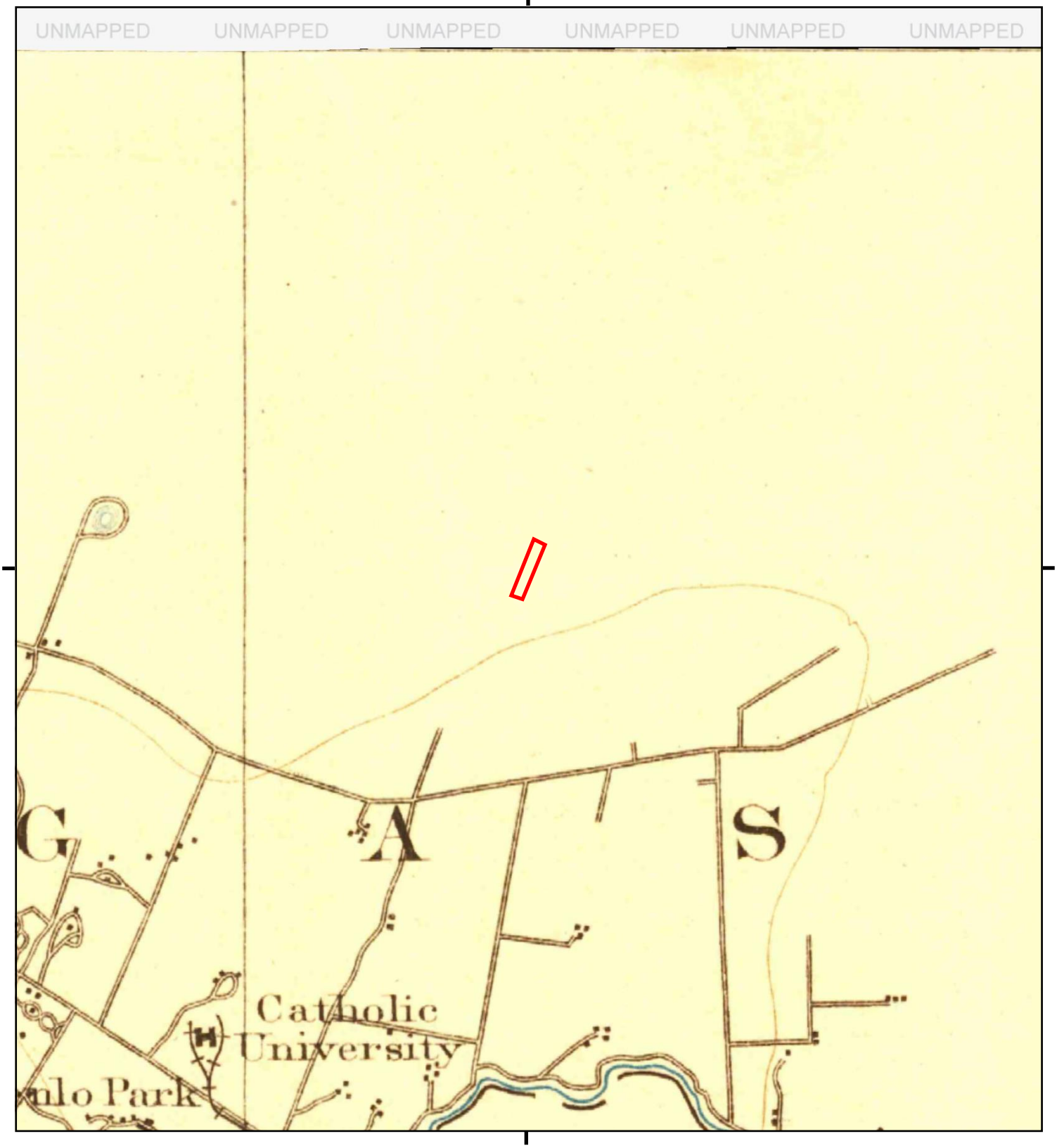
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1899, 15-minute
N, Haywards, 1899, 15-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1897, 15-minute

SITE NAME: The Gateway Gardens Apartments
ADDRESS: 1317 - 1345 Willow Road
Menlo Park, CA 94025
CLIENT: Integrated Property Analysis

N

The Gateway Gardens Apartments

1317 - 1345 Willow Road

Menlo Park, CA 94025

Inquiry Number: 5654286.8

May 17, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

05/17/19

Site Name:

The Gateway Gardens Apartm
1317 - 1345 Willow Road
Menlo Park, CA 94025
EDR Inquiry # 5654286.8

Client Name:

Integrated Property Analysis
550 West Vista Way Suite 212
Vista, CA 92083
Contact: Michael Atallah

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1998	1"=500'	Flight Date: August 27, 1998	USDA
1991	1"=500'	Acquisition Date: October 30, 1991	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1974	1"=500'	Flight Date: June 26, 1974	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 23, 1963	EDR Proprietary Aerial Viewpoint
1958	1"=500'	Flight Date: July 21, 1958	USGS
1950	1"=500'	Flight Date: April 03, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1943	1"=500'	Flight Date: October 05, 1943	USDA
1939	1"=500'	Flight Date: July 31, 1939	USDA

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INQUIRY #: 5654286.8

YEAR: 2016

= 500'

N

EDR

INQUIRY #: 5654286.8
YEAR: 2012
= 500'
N
EDR

INQUIRY #: 5654286.8
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 5654286.8
YEAR: 2005
= 500'
N
EDR

INQUIRY #: 5654286.8

YEAR: 1998

= 500'

N

EDR

INQUIRY #: 5654286.8

YEAR: 1991

= 500'

N

EDR

INQUIRY #: 5654286.8
YEAR: 1982
= 500'
N
EDR

INQUIRY #: 5654286.8
YEAR: 1974
= 500'
N
EDR

INQUIRY #: 5654286.8
YEAR: 1968
= 500'
N
EDR

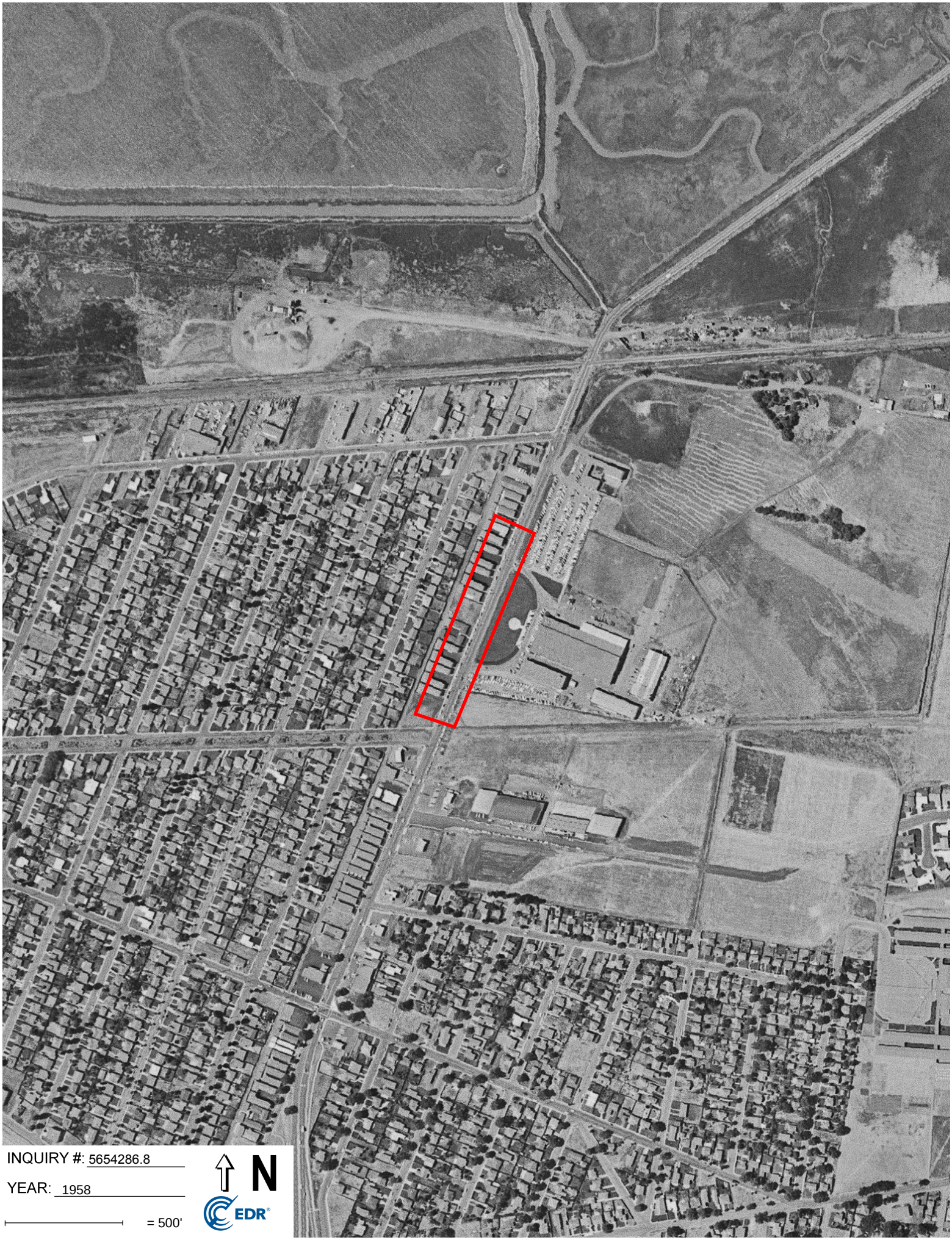
INQUIRY #: 5654286.8

YEAR: 1963

= 500'

N

EDR



INQUIRY #: 5654286.8

YEAR: 1958

= 500'

N

EDR

INQUIRY #: 5654286.8

YEAR: 1950

= 500'

N

EDR

INQUIRY #: 5654286.8

YEAR: 1948

= 500'

N

EDR

INQUIRY #: 5654286.8

YEAR: 1943

= 500'

N

EDR

INQUIRY #: 5654286.8

YEAR: 1939

= 500'

N

EDR

APPENDIX C:
Questionnaires

KEY SITE MANAGER PRE-SURVEY QUESTIONNAIRE

Name of person completing questionnaire: **Ms. Melanie Casperson**

Association with property: **Property Manager**

Length of association with property: **6 Years**

Date: **May 14, 2019**

Property Name: **The Gateway Garden Apartments**

Directions: Please answer all questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column.
Note: *U/NR* indicates *"Unknown"* or *"No Response"*.

QUESTION		RESPONSE			COMMENTS
		Y	N	U/NR	
1A.	Is the Subject used for an industrial use?		X		
1B.	Are any adjoining properties used for an industrial use?		X		
2A.	To the best of your knowledge, has the Subject been used for an industrial use in the past?		X		
2B.	To the best of your knowledge, has any adjoining properties been used for an industrial use in the past?		X		
3A.	Is the Subject used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		X		
3B.	Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		X		

QUESTION		RESPONSE			COMMENTS
		Y	N	U/NR	
4A.	To the best of your knowledge, has the Subject been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		X		
4B.	To the best of your knowledge, has any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		X		
5A.	Are there currently any automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than five gallons in volume or fifty gallons in the aggregate, stored on or used at the Subject?		X		
5B.	To the best of your knowledge, have there been previously any automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than five gallons in volume or fifty gallons in the aggregate, stored on or used at the Subject?		X		
6A.	Are there currently any industrial drums (typically 55 gallon) or sacks of chemicals located on the Subject?		X		
6B.	To the best of your knowledge, have there been previously any industrial drums (typically 55 gallon) or sacks of chemicals located on the Subject?		X		
7A.	Are there currently any groundwater monitoring wells or other groundwater wells (i.e., potable drinking water wells) located on the Subject?		X		
7B.	To the best of your knowledge, have there been previously any groundwater monitoring wells or other groundwater wells (i.e., potable drinking water wells) located on the Subject?		X		
8A.	Has fill dirt been brought onto the Subject which originated from a contaminated site?		X		

QUESTION		RESPONSE			COMMENTS
		Y	N	U/NR	
8B.	Has fill dirt been brought onto the Subject which is of an unknown origin?		X		
9A.	Are there currently any pits, ponds or lagoons located on the Subject in connection with waste treatment or waste disposal?		X		
9B.	To the best of your knowledge, have there been previously any pits, ponds or lagoons located on the Subject in connection with waste treatment or waste disposal?		X		
10A.	Is there currently, any stained soil on the Subject?		X		
10B.	To the best of your knowledge, has there been previously any stained soil on the Subject?		X		
11A.	Are there currently any registered or unregistered storage tanks (above or underground) located on the Subject?		X		
11B.	To the best of your knowledge, have there been previously any registered or unregistered storage tanks (above or underground) located on the Subject?		X		
12A.	Are there currently any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the Subject or adjacent to any structure located on the Subject?		X		
12B.	To the best of your knowledge, have there been previously any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the Subject or adjacent to any structure located on the Subject?		X		
13A.	Are there currently any flooring, drains, or walls located at the Subject that are stained by substances other than water or are emitting foul odors?		X		
13B.	To the best of your knowledge, have there been previously any flooring, drains, or walls located at the Subject that are stained by substances other than water or are emitting foul odors?		X		

QUESTION		RESPONSE			COMMENTS
		Y	N	U/NR	
14A.	If the Subject is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system?		X		
14B.	If the Subject is served by a private well or non-public water system, has the well been designated as contaminated by any government environmental/health agency?		X		
15A.	Have you been informed of the past existence of hazardous substances or petroleum products with respect to the Subject or any facility located on the Subject?		X		
15B.	Have you been informed of the current existence of hazardous substances or petroleum products with respect to the Subject or any facility located on the Subject?		X		
16A.	Are there any environmental liens or governmental notification relating to past or current violations of environmental laws with respect to the Subject or any facility located on the Subject?		X		
16B.	Have you been informed of the past existence of environmental violations with respect to the Subject or any facility located on the Subject?		X		
16C.	Are you aware of any pending, threatened, or past litigation relevant to hazardous substances of petroleum products in, on or from the property?		X		
16D.	Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		X		
16E.	Are you aware of any notices from any governmental entity regarding any possible violation or environmental laws or possible liability relating to hazardous substances or petroleum products?		X		

	QUESTION	RESPONSE			COMMENTS
		Y	N	U/NR	
17.	Have there been any environmental site assessments of the Subject that indicated the presence of hazardous substances or petroleum products on, or contamination of, the Subject or recommended further assessment of the Subject?		X		
18.	Does the Subject discharge waste water on or adjacent to the Subject, other than storm water, into a storm water sewer system?		X		
19.	Does the Subject discharge waste water on or adjacent to the Subject, other than storm water, or into a sanitary system?		X		
20.	Have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the Subject?		X		
21.	Is there a transformer, capacitor or any hydraulic equipment for which there are any records indicating the presence of PCBs?		X		
22.	Is there now or has there ever been any asbestos-containing materials (ACM), in any application, on the Subject?	X			
23.	Has there ever been any ACM testing conducted on the Subject?	X			
24.	Is there an asbestos Operations and Maintenance (O&M) program in place at the Subject?			X	
25.	Is there now or has there ever been any lead-based paint (LBP) applications on the Subject?	X			
26.	Has there ever been LBP testing conducted on the Subject?	X			
27.	Is there a Lead Paint Operations and Maintenance (O&M) Program in place at the Subject?			X	
28.	Has the water at the Subject ever been tested for lead?			X	
29.	Has Radon testing ever been conducted at the Subject?			X	

	QUESTION	RESPONSE			COMMENTS
		Y	N	U/NR	
30.	Are there any other Operations and Maintenance (O&M) programs in place that we should be made aware of?			X	
31.	Is the Subject or any portion of the Subject located or involved in any environmentally sensitive areas (i.e., wetlands, coastal barrier resource areas, coastal barrier improvement act areas, flood plains, endangered species, etc.)?			X	
32.	Do you know or suspect that mold was or is present in the building(s) or HVAC system? - If "Yes", proceed to question #33. - If "No", skip question #33 and proceed to question #34.		X		
33.	Are there reliable procedures that specify the actions (i.e. operations and maintenance) to be taken to prevent and/or respond to mold or mold producing problems?				
34.	Is there a mold Operations and Maintenance (O&M) program in place at the Subject?			X	
35.	Is the HVAC system inspected at least annually?			X	
36.	Have identified HVAC problems been corrected in a timely manner?	X			
37.	Is there now, or has there ever been evidence of mold or mildew present at the building(s)? If so, when?			X	
38.	Is there now, or has there ever been any water damage in the building(s), whether from flooding, plumbing, roof leaks, or other sources? If so, when?			X	
39.	Has there ever been any sort of Indoor Air Quality (IAQ) or mold testing conducted in the building(s)?			X	

Summarize historical Subject use (when was the Subject developed with the current improvements, what modifications have taken place, what was the Subject used for prior to it's current use)	

USER QUESTIONNAIRE

IPA has been retained to conduct a Phase I Environmental Site Assessment (ESA) of the following property. The Phase I ESA will involve site observations, interviews, and a review of available documentation. To ensure the success of the assessment, and in accordance with the ASTM 05 Scope of Work for this assessment, which documents certain User responsibilities, we are submitting this questionnaire to help you meet those responsibilities. Please complete this questionnaire and return via email or by fax to 949-756-8280 (within one business day of receipt).

		Date:	**May 14, 2019**
Name of person completing questionnaire:	**Ms. Noemi Paez**	**Company:**	**MidPen Housing**
Length of association with property:	**1 year**	**Phone Number:**	**650-356-2959**
Property Name/Address:	**The Gateway Garden Apartments, 1317 – 1385 Willow Road, Menlo Park, CA 94025**		
IPA Subject Number:	**0138-0306**		

Directions: Please answer all questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column.
Note: *U/NR* indicates *"Unknown"* or *"No Response"*, and *"N/A"* indicates not applicable.

	QUESTION	RESPONSE			COMMENTS
		Y	N	U/ NR	
1	Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?		X		
2	Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		X		
3	Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		X		
4	Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?		X		
5	Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?		X		
6	As the user of this ESA do you have any specialized knowledge or		X		

	QUESTION		RESPONSE			COMMENTS
			Y	N	U/ NR	
	experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?					
7	Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?		X			
8	Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user			X		
	8 (a)	Do you know the past uses of the property?			X	
	8 (b)	Do you know of specific chemicals that are present or once were present at the property?	X			Limited asbestos and lead-based paint inspections have been provided.
	8 (c)	Do you know of spills or other chemical releases that have taken place at the property?		X		
	8 (d)	Do you know of any environmental cleanups that have taken place at the property?		X		
9	As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?			X		

In addition, are you aware of any of the following documents, and if so, please forward copies of the document(s) to IPA at 550 West Vista Way, Suite 212, Vista, California 92083 (along with a copy of this form):

☒ **Helpful Documents to be forwarded to IPA:**

☐ Environmental site assessment reports (i.e., Phase I, Phase II, tank testing results, radon, lead paint, or asbestos testing, etc.)

☐ Environmental compliance audit reports; risk assessments; and recorded Activity and Use Limitations (AULs)

☐ Environmental permits (i.e., solid waste disposal, hazardous waste disposal, wastewater, NPDES, underground injection, etc.)

☐ Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs)

- ☐ Registrations for underground injection systems
- ☐ Material safety data sheets
- ☐ Community right-to-know plan
- ☐ Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans, etc
- ☐ Reports regarding hydrogeological or geotechnical conditions on the property and surrounding area
- ☐ Notices/correspondence from any agency relating to past/current violations of environmental laws, or liens encumbering the property
- ☐ Hazardous waste generator notices or reports
- ☐ Other:

OWNER QUESTIONNAIRE

IPA has been retained to conduct a Phase I Environmental Site Assessment (ESA) of the following property. The Phase I ESA will involve site observations, interviews, and a review of available documentation. To ensure the success of the assessment, and in accordance with the ASTM 05 Scope of Work for this assessment we are required to ask the following questions to the Owner or Owner representative. Please complete this questionnaire and return via email or by fax to (949)-756-8280 (within one business day of receipt).

		Date:	**May 14, 2019**
Name of person completing questionnaire:	**Ms. Noemi Paez**	**Company:**	**MidPen Housing**
Length of association with property:	**1 Year**	**Phone Number:**	**650-356-2959**
Property Name/Address:	**The Gateway Garden Apartments, 1317 – 1385 Willow Road, Menlo Park, CA 94025**		
IPA Subject Number:	**0138-0306**		
Please check one:	**Owner:** ☐ **Owner Representative:** ☒		

Directions: Please answer all questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column. Note: *U/NR* indicates *"Unknown"* or *"No Response"*, and *"N/A"* indicates not applicable.

	QUESTION	RESPONSE			COMMENTS
		Y	N	U/ NR	
1	Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?		X		
2	Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		X		
3	Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		X		

In addition, are you aware of any of the following documents, and if so, please forward copies of the document(s) to IPA at 550 West Vista Way, Suite 212, Vista, California 92083 (along with a copy of this form):

☒ **Helpful Documents to be forwarded to IPA:**

☐ Environmental site assessment reports (i.e., Phase I, Phase II, tank testing results, radon, lead paint, or asbestos testing, etc.)

☐ Environmental compliance audit reports; risk assessments; and recorded Activity and Use Limitations (AULs)

☐ Environmental permits (i.e., solid waste disposal, hazardous waste disposal, wastewater, NPDES, underground injection, etc.)

☐ Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs)

- ☐ Registrations for underground injection systems
- ☐ Material safety data sheets
- ☐ Community right-to-know plan
- ☐ Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans, etc
- ☐ Reports regarding hydrogeological or geotechnical conditions on the property and surrounding area
- ☐ Notices/correspondence from any agency relating to past/current violations of environmental laws, or liens encumbering the property
- ☐ Hazardous waste generator notices or reports
- ☐ Other:

APPENDIX D:
Regulatory Database Report

The Gateway Gardens Apartments
1317 - 1345 Willow Road
Menlo Park, CA 94025

Inquiry Number: 5654286.2s
May 16, 2019

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

COORDINATES

Latitude (North):	37.4776170 - 37° 28' 39.42''
Longitude (West):	122.1525720 - 122° 9' 9.25''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	574929.1
UTM Y (Meters):	4147991.0
Elevation:	10 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640620 PALO ALTO, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	THE GATEWAY	1345 WILLOW RD UNIT	CA HAZNET		TP
A2	MID-PEN HOUSING	1321 WILLOW RD STE C	CA HAZNET		TP
A3	GATEWAY APARTMENTS	1345 WILLOW RD UNIT	CA HAZNET		TP
A4	GATEWAY APARTMENTS	1339 WILLOW RD	CA HAZNET		TP
A5	MID PEN HOUSING	1345 WILLOW RD	CA HAZNET		TP
A6	ROBERT MEYERS	1345 WILLOW RD UNIT	CA HAZNET		TP
B7	GATEWAY APARTMENTS	1361 WILLOW RD APT C	CA HAZNET	Lower	2, 0.000,
C8	SOLESKA MARKET	1305 WILLOW	CA San Mateo Co. BI	Higher	91, 0.017, SSW
B9	MENLO PARK FIRE DIST	1376 WILLOW	CA San Mateo Co. BI	Lower	110, 0.021, NE
D10	CHEVRON STATION # 20	1399 WILLOW RD	CA UST	Lower	125, 0.024, NNE
D11	CHEVRON CSI 1717	1399 WILLOW RD	EDR Hist Auto	Lower	125, 0.024, NNE
D12	BELLE HAVEN CHEVRON	1399 WILLOW RD	RCRA-SQG, FINDS, ECHO, CA HAZNET	Lower	125, 0.024, NNE
D13	BELLE HAVEN CHEVRON	1399 WILLOW RD	CA CERS HAZ WASTE, CA CERS TANKS, CA CERS	Lower	125, 0.024, NNE
D14	BELLE HAVEN CHEVRON	1399 WILLOW	CA San Mateo Co. BI	Lower	125, 0.024, NNE
D15	CHEVRON STATION INC	1399 WILLOW	CA San Mateo Co. BI	Lower	125, 0.024, NNE
A16	WILLOW OFFICE PARK	1350-1390 WILLOW RD.	CA ENVIROSTOR, CA VCP	Higher	130, 0.025, SE
A17	MENLO CARE INC	1350 WILLOW RD	RCRA-SQG, FINDS, ECHO	Higher	130, 0.025, SE
A18	MENLO CARE INC	1350 WILLOW	CA San Mateo Co. BI	Higher	130, 0.025, SE
D19	PRIVATE SOCIAL CLUB	871 HAMILTON	CA San Mateo Co. BI	Lower	243, 0.046, NNE
D20	DASHI JAPANESE RESTA	873 HAMILTON	CA San Mateo Co. BI	Lower	246, 0.047, NNE
21	VIDA MED	1380 WILLOW	CA San Mateo Co. BI	Lower	253, 0.048, ENE
D22	FEDERAL EXPRESS	1392 WILLOW RD	RCRA-SQG, CA LUST, FINDS, ECHO, CA San Mateo Co....	Lower	261, 0.049, NE
D23	INCUBE LABS	1390 WILLOW	CA San Mateo Co. BI	Lower	261, 0.049, NE
D24	OPTICAL SHIELD INC	1390 WILLOW RD	RCRA-SQG, FINDS, ECHO	Lower	261, 0.049, NE
D25	INCUBE, INC.	1390 WILLOW	CA San Mateo Co. BI	Lower	261, 0.049, NE
D26	MI TAQUERIA	875 HAMILTON	CA San Mateo Co. BI	Lower	264, 0.050, NNE
D27	MS LIZZIES	877 HAMILTON	CA San Mateo Co. BI	Lower	293, 0.055, NNE
D28	FIVE STAR PIZZA	877 HAMILTON	CA San Mateo Co. BI	Lower	293, 0.055, NNE
E29	GUY'S ROOFING	831 HAMILTON	CA LUST	Lower	299, 0.057, North
C30	WILLOW CORNERS LLC-U	1283 WILLOW	CA LUST, CA San Mateo Co. BI, CA CERS	Higher	317, 0.060, SSW
E31	UST SITE - FORMER WE	851 HAMILTON	CA LUST, CA HIST UST, CA San Mateo Co. BI, CA CERS	Lower	325, 0.062, North
D32	SAJJ	879 HAMILTON	CA San Mateo Co. BI	Lower	346, 0.066, NNE
D33	COST-LESS CLEANERS	879 HAMILTON AVE	EDR Hist Cleaner	Lower	346, 0.066, NNE
F34	WILLOW RD PUMPING ST	1298 WILLOW	CA San Mateo Co. BI	Higher	367, 0.070, South
E35	BAYLAND DRILLING INC	811 HAMILTON	CA San Mateo Co. BI	Lower	368, 0.070, NNW
F36	BELCHER CLEVIE	1300 WILLOW RD	EDR Hist Auto	Higher	370, 0.070, South
D37	ALZA CORPORATION	1392 WILLOW ROAD (MP	RCRA-LQG	Lower	372, 0.070, NE
D38	ENERGY TRANSFORMATIO	1394 WILLOW	CA CPS-SLIC, CA San Mateo Co. BI, CA HIST CORTESE,...	Lower	376, 0.071, NE
D39	JACK IN THE BOX #347	1401 WILLOW	CA San Mateo Co. BI	Lower	378, 0.072, NNE

MAPPED SITES SUMMARY

Target Property Address:
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
D40	STARBUCKS COFFEE CO	1401 WILLOW	CA San Mateo Co. BI	Lower	378, 0.072, NNE
G41	WILLOW WINE STORAGE,	1320 WILLOW	CA San Mateo Co. BI	Higher	383, 0.073, SSE
H42	GOLDEN FALAFEL	883 HAMILTON	CA San Mateo Co. BI	Lower	432, 0.082, NE
H43	SAJJ	883 HAMILTON	CA San Mateo Co. BI	Lower	432, 0.082, NE
H44	TOGOS/BASKIN ROBBINS	885 HAMILTON	CA San Mateo Co. BI	Lower	436, 0.083, NE
H45	TOGOS MENLO PARK	885 HAMILTON	CA San Mateo Co. BI	Lower	436, 0.083, NE
46	ADVANCED METAL COMPO	1374 WILLOW RD	RCRA-SQG, FINDS, ECHO, CA San Mateo Co. BI, CA...	Lower	502, 0.095, East
H47	CARDIOKINETIX INC	925 HAMILTON	CA San Mateo Co. BI	Lower	528, 0.100, NE
I48	FACEBOOK MPK58 MICRO	1360 WILLOW	CA San Mateo Co. BI	Higher	531, 0.101, ESE
I49	PRODUCT HEALTH	1360 WILLOW	CA San Mateo Co. BI	Higher	531, 0.101, ESE
I50	FORTEBIO INC	1360 WILLOW	CA San Mateo Co. BI	Higher	531, 0.101, ESE
J51	FORMER HOLLYBURNE AV	735 HAMILTON AVENUE	CA LUST, CA CPS-SLIC, CA CERS	Lower	555, 0.105, NNW
G52	ALS ROOFING SUPPLY	985 OBRIEN	CA San Mateo Co. BI	Higher	556, 0.105, SSE
H53	FACEBOOK	925 HAMILTON AVE	RCRA NonGen / NLR	Lower	564, 0.107, NE
H54	CARDIOKINETIX INC	925 HAMILTON AVE	RCRA NonGen / NLR	Lower	564, 0.107, NE
H55	ONSITE DENTAL	925 HAMILTON AVE	RCRA NonGen / NLR	Lower	564, 0.107, NE
H56	ENDOTEX ANNEX	931 HAMILTON	CA San Mateo Co. BI	Lower	576, 0.109, NE
H57	WAREHOUSE/COLOMBO BA	1401 WILLOW	CA LUST, CA HIST CORTESE, CA CERS	Lower	584, 0.111, NE
K58	IONPATH INC	960 OBRIEN	CA San Mateo Co. BI	Higher	620, 0.117, South
K59	IONPATH INC	960 O'BRIEN DRIVE	RCRA-SQG	Higher	620, 0.117, South
J60	HAMILTON APARTMENTS	777 HAMILTON AVENUE	CA LUST, CA CPS-SLIC, CA NPDES, CA CIWQS, CA CERS	Lower	643, 0.122, NW
J61	UST SITE - 777 HAMIL	777 HAMILTON	CA San Mateo Co. BI	Lower	643, 0.122, NW
L62	MEMBRANE TECHNOLOGY	943 HAMILTON	CA San Mateo Co. BI	Lower	674, 0.128, NE
K63	SANFORD METAL PROCES	990 O BRIEN DR	RCRA-SQG, CA ENVIROSTOR	Higher	691, 0.131, SSE
K64	SANFORD METAL PROCES	990 OBRIAN DRIVE	CA HIST UST	Higher	691, 0.131, SSE
K65	SANFORD METAL PROCES	990 O'BRIEN DRIVE	CA CERS HAZ WASTE, CA HIST UST, CA CHMIRS, CA San...	Higher	691, 0.131, SSE
K66	SANFORD METAL PROCES	990 O'BRIEN DRIVE	RCRA-LQG	Higher	691, 0.131, SSE
M67	ELECTRO MOTION, INC.	1001 OBRIEN	CA San Mateo Co. BI	Higher	699, 0.132, SSE
M68	ELECTRO MOTION INC	1001 OBRIEN DR	CA CERS HAZ WASTE, CA CERS	Higher	699, 0.132, SSE
N69	PACIFIC BIOSCIENCES	960 HAMILTON AVE	CA CERS HAZ WASTE, CA CERS TANKS, CA CERS	Lower	702, 0.133, ENE
N70	PACIFIC BIOSCIENCES	960 HAMILTON AVE	CA AST	Lower	702, 0.133, ENE
N71	PACIFIC BIOSCIENCES	960 HAMILTON AVE	RCRA-LQG, CA HAZNET	Lower	702, 0.133, ENE
L72	AMB WILLOW BUSINESS	933 HAMILTON AVE	RCRA-SQG, FINDS, ECHO	Lower	705, 0.134, NE
L73	MEMBRANE TECHNOLOGY	953 HAMILTON	CA San Mateo Co. BI	Lower	746, 0.141, ENE
K74	NOREN PRODUCTS	1010 OBRIEN DR	RCRA-SQG, FINDS, ECHO, CA San Mateo Co. BI	Higher	759, 0.144, SSE
K75	NOREN PRODUCTS INC	1010 OBRIEN DR	CA LUST, CA HAZNET, CA CERS	Higher	759, 0.144, SSE
K76	NOREN PRODUCTS	1010 O'BRIEN DRIVE	CA CPS-SLIC	Higher	759, 0.144, SSE
O77	DM FIGLEY CO., INC.	10 KELLY	CA San Mateo Co. BI	Higher	763, 0.145, SE
O78	D M FIGLEY CO INC	10 KELLY	CA San Mateo Co. BI	Higher	763, 0.145, SE

MAPPED SITES SUMMARY

Target Property Address:
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
N79	MENLO IND. PARK LIFT	1990 HAMILTON	CA LUST, CA CERS	Lower	781, 0.148, ENE
J80	PROFESSIONAL TREE CA	767 HAMILTON	CA San Mateo Co. BI	Lower	783, 0.148, NW
I81	INVISAGE TECHNOLOGIE	990 HAMILTON AVE	RCRA NonGen / NLR, FINDS, ECHO	Higher	793, 0.150, ESE
I82	A & B PROPERTY CORP	990 HAMILTON	CA CERS HAZ WASTE, CA HAZNET, CA CERS	Higher	793, 0.150, ESE
P83	RAYCHEM CORPORATION	980 HAMILTON AVE	RCRA-SQG	Higher	798, 0.151, East
L84	CETERIX ORTHOPAEDICS	959 HAMILTON AVE	CA San Mateo Co. BI, CA HAZNET	Lower	806, 0.153, ENE
L85	CETERIX ORTHOPAEDICS	959 HAMILTON AVE	RCRA NonGen / NLR	Lower	806, 0.153, ENE
L86	HEARTVISTA	998 HAMILTON	CA San Mateo Co. BI, CA CERS	Lower	813, 0.154, NE
M87	AVALANCHE BIOTECHNOL	1035 OBRIEN DR	CA CERS HAZ WASTE, CA CERS	Higher	844, 0.160, SSE
M88	ADVERUM BIOTECHNOLGI	1035 OBRIEN	CA San Mateo Co. BI	Higher	844, 0.160, SSE
N89	CHEMETAL, INC	970 HAMILTON CT	RCRA-SQG, CA HAZNET	Lower	868, 0.164, ENE
N90	CHEMETAL	970 HAMILTON COURT	CA CHMIRS, CA San Mateo Co. BI, CA EMI	Lower	868, 0.164, ENE
M91	US GEOLOGICAL SURVEY	1020 OBRIEN	CA San Mateo Co. BI	Higher	876, 0.166, SSE
N92	LINCOLN WILLOW BUSIN	978 HAMILTON CT	RCRA-SQG, FINDS, ECHO, CA San Mateo Co. BI, CA...	Lower	879, 0.166, ENE
N93	LINCOLN WILLOW PARCE	990 HAMILTON	CA LUST, CA CPS-SLIC, CA DEED, CA San Mateo Co....	Lower	896, 0.170, ENE
N94	FACEBOOK	990 HAMILTON COURT	RCRA NonGen / NLR	Lower	896, 0.170, ENE
N95	MENLO INDUSTRIAL PUM	1002 HAMILTON	CA San Mateo Co. BI	Lower	912, 0.173, ENE
M96	PARSONS MANUFACTURIN	1055 OBRIEN	CA San Mateo Co. BI	Higher	919, 0.174, SE
N97	ENDOTEX	1010 HAMILTON	CA San Mateo Co. BI	Lower	923, 0.175, ENE
N98	PACIFIC BIOSCIENCES	1010 HAMILTON CT	RCRA-LQG	Lower	923, 0.175, ENE
O99	C S BIO CO	20 KELLY CT	RCRA-LQG, TRIS, FINDS, ECHO	Higher	930, 0.176, SE
O100	C S BIO CO	20 KELLY COURT	CA San Mateo Co. BI, CA NPDES, CA CIWQS	Higher	930, 0.176, SE
O101	C S BIO	20 KELLY CT	CA CERS HAZ WASTE, CA CERS	Higher	930, 0.176, SE
N102	CONOR MEDSYSTEMS	1003 HAMILTON	CA San Mateo Co. BI	Lower	930, 0.176, ENE
N103	DELTAGEN INC	1003 HAMILTON	CA CHMIRS, CA San Mateo Co. BI	Lower	930, 0.176, ENE
N104	CONOR MEDSYSTEMS, IN	1003 HAMILTON CT	RCRA-LQG	Lower	930, 0.176, ENE
N105	PACIFIC BIOSCIENCES	1005 HAMILTON	CA San Mateo Co. BI	Lower	934, 0.177, ENE
N106	CALYDON	1014 HAMILTON	CA San Mateo Co. BI	Lower	937, 0.177, ENE
N107	ANOSYS, INC.	1014 HAMILTON	CA San Mateo Co. BI	Lower	937, 0.177, ENE
Q108	ALLEN EQUIPMENT	755 HAMILTON AVE	CA SWEEPS UST, CA FID UST	Lower	952, 0.180, NW
Q109	ALLEN EQUIPMENT COMP	755 HAMILTON	CA LUST, CA HAZNET	Lower	952, 0.180, NW
Q110	ALLEN EQUIP COMPANY	755 HAMILTON AVE	CA HIST UST	Lower	952, 0.180, NW
Q111	ALLEN EQUIPMENT COMP	755 HAMILTON AVENUE	CA LUST, CA San Mateo Co. BI, CA HIST CORTESE	Lower	952, 0.180, NW
N112	PIXTERRA, INC	1020 HAMILTON	CA San Mateo Co. BI	Lower	959, 0.182, ENE
113	MPK 20	1 FACEBOOK	CA San Mateo Co. BI, CA NPDES, CA CIWQS	Lower	974, 0.184, NNW
R114	MEMBRANE TECHNOLOGY	1030 HAMILTON COURT	RCRA-SQG, FINDS, ECHO	Lower	995, 0.188, ENE
R115	OMNI PV INC	1030 HAMILTON	CA San Mateo Co. BI	Lower	995, 0.188, ENE
R116	DEJA QS CAFE	1038 HAMILTON	CA San Mateo Co. BI	Lower	1024, 0.194, ENE
O117	LINEAR OPTIONS	1 KELLY CT	RCRA NonGen / NLR, FINDS, ECHO, CA San Mateo Co....	Higher	1025, 0.194, SE

MAPPED SITES SUMMARY

Target Property Address:
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
R118	SATELLITE HEALTHCARE	1040 HAMILTON	CA San Mateo Co. BI	Lower	1032, 0.195, ENE
P119	ALZA CORPORATION	1050 HAMILTON CT	NY MANIFEST	Higher	1047, 0.198, East
P120	ALZA CORPORATION	1050 HAMILTON	CA San Mateo Co. BI	Higher	1047, 0.198, East
P121	ALZA CORPORATION	1050 HAMILTON CT	RCRA NonGen / NLR, FINDS, ECHO, CA HAZNET	Higher	1047, 0.198, East
S122	AT & T MOBILITY-PG&E	1599 WILLOW	CA San Mateo Co. BI	Lower	1056, 0.200, NNE
T123	WESTERN ALLIED CORP	22 KELLY	CA San Mateo Co. BI	Higher	1069, 0.202, SE
T124	NOREN PRODUCTS INC	1075 OBRIEN	CA San Mateo Co. BI	Higher	1141, 0.216, SE
125	MENLO PARK WEST CAMP	312-314 CONSTITUTION	CA ENVIROSTOR, CA VCP, CA DEED	Lower	1162, 0.220, NNW
R126	MPK 40	1080 HAMILTON	CA San Mateo Co. BI	Lower	1176, 0.223, East
R127	RENNOVIA INC	1080 HAMILTON CT	RCRA-LQG, FINDS, ECHO	Lower	1176, 0.223, East
R128	RENNOVIA INC	1080 HAMILTON	CA San Mateo Co. BI	Lower	1176, 0.223, East
S129	FUKI SUSHI JAPANESE	1601 WILLOW	CA San Mateo Co. BI	Lower	1229, 0.233, NNE
S130	FACEBOOK	1601 WILLOW	CA San Mateo Co. BI	Lower	1229, 0.233, NNE
S131	FACEBOOK	1601 WILLOW	CA San Mateo Co. BI	Lower	1229, 0.233, NNE
S132	SUN MICROSYSTEMS	1601 WILLOW	CA AST	Lower	1229, 0.233, NNE
S133	ORACLE AMERICA INC	1601 WILLOW	CA San Mateo Co. BI	Lower	1229, 0.233, NNE
S134	SUN MICROSYSTEMS INC	1601 WILLOW RD	CA CPS-SLIC, CA HAZNET, CA CERS	Lower	1229, 0.233, NNE
T135	WESTT INC	1090 OBRIEN	CA San Mateo Co. BI	Higher	1242, 0.235, SE
R136	QLT PLUG DELIVERY	1098 HAMILTON CT	RCRA NonGen / NLR	Higher	1242, 0.235, East
R137	BIOPHARMX	1098 HAMILTON	CA San Mateo Co. BI	Higher	1242, 0.235, East
T138	WEST, INC	1090 O'BRIEN	CA San Mateo Co. BI	Higher	1266, 0.240, SE
T139	VACANT COMMERCIAL	1105 O'BRIEN DR	CA SWEEPS UST, CA HIST CORTESE	Higher	1266, 0.240, SE
140	WESTBAY STEEL INC	1 CASEY	CA LUST, CA San Mateo Co. BI, CA HIST CORTESE, CA...	Higher	1266, 0.240, ESE
141	SAGEHILL ENGINEERING	1115 HAMILTON	CA San Mateo Co. BI	Lower	1269, 0.240, ENE
U142	GUALDULAHARA TAQUERI	1211 WILLOW	CA San Mateo Co. BI	Higher	1272, 0.241, SSW
T143	KATEEVA INC	1105 OBRIEN	CA San Mateo Co. BI	Higher	1287, 0.244, SE
T144	JUPITER ENGINEERING	1105 O'BRIEN	CA LUST	Higher	1287, 0.244, SE
U145	QUALITY MARKET	1209 WILLOW	CA San Mateo Co. BI	Higher	1287, 0.244, SSW
146	MELCHER'S IRON WORKS	1520 WILLOW	CA LUST, CA CPS-SLIC, CA HIST CORTESE	Lower	1473, 0.279, NE
147	KITTY CLEANERS	910 NEWBRIDGE	CA CPS-SLIC, CA BROWNFIELDS, CA CERS	Higher	1514, 0.287, SSW
V148	RAYMOND HANDLING SYS	1215 O'BRIEN	CA LUST	Higher	1547, 0.293, ESE
V149	RAYMOND HANDLING SYS	1215 O BRIEN	CA LUST, CA CPS-SLIC, CA HIST CORTESE	Higher	1547, 0.293, ESE
V150	RAYMOND HANDLING SYS	1215 O BRIEN	CA HIST CORTESE	Higher	1547, 0.293, ESE
W151	ROOFING CONTRACTOR	551/555 HAMILTON AVE	CA LUST	Lower	1871, 0.354, WNW
W152	ROOFING CONTRACTOR	551/555 HAMILTON	CA CPS-SLIC, CA CERS	Lower	1871, 0.354, WNW
W153	SEGALE BROS WOOD PRO	535 HAMILTON	CA LUST, CA CPS-SLIC, CA San Mateo Co. BI, CA CERS	Lower	1948, 0.369, WNW
X154	TOLLNER PAINTING INC	525 HAMILTON	CA LUST, CA San Mateo Co. BI, CA CERS	Higher	2030, 0.384, West
X155	ALANIZ CONSTRUCTION	519 HAMILTON	CA LUST, CA CPS-SLIC, CA San Mateo Co. BI, CA CERS	Higher	2106, 0.399, West
X156	SUNSET HEATING AND A	511 HAMILTON AVENUE	CA LUST, CA CPS-SLIC, CA HIST UST, CA CERS	Higher	2186, 0.414, West

MAPPED SITES SUMMARY

Target Property Address:
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
X157	SUNSET HEATING AND A	507 HAMILTON	CA LUST, CA CERS	Higher	2230, 0.422, West
Y158	TE CONNECTIVITY LTD	305 CONSTITUTION DR.	SEMS-ARCHIVE, RCRA-TSDF, RCRA-LQG, CA ENVIROSTOR,	Lower	3206, 0.607, WNW
Y159	RAYCHEM CORPORATION	300 CONSTITUTION DRI	CA HIST UST, CA DEED, CA EMI, CA HAZNET, CA HWP,...	Lower	3206, 0.607, WNW
160	TE CONNECTIVITY LTD	305 CONSTITUTION DR.	CORRACTS, US INST CONTROL, US FIN ASSUR	Lower	4537, 0.859, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
THE GATEWAY 1345 WILLOW RD UNIT MENLO PARK, CA 94025	CA HAZNET GEPAID: CAC002642005	N/A
MID-PEN HOUSING 1321 WILLOW RD STE C MENLO PARK, CA 94025	CA HAZNET GEPAID: CAC002692022	N/A
GATEWAY APARTMENTS 1345 WILLOW RD UNIT MENLO PARK, CA 94025	CA HAZNET GEPAID: CAC002744413	N/A
GATEWAY APARTMENTS 1339 WILLOW RD MENLO PARK, CA 94025	CA HAZNET GEPAID: CAC002867231	N/A
MID PEN HOUSING 1345 WILLOW RD MENLO PARK, CA 94025	CA HAZNET GEPAID: CAC002725183	N/A
ROBERT MEYERS 1345 WILLOW RD UNIT MENLO PARK, CA 94025	CA HAZNET GEPAID: CAC002673482	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

CA RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

CA SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

CA WMUDS/SWAT ---------- Waste Management Unit Database

CA SWRCY	Recycler Database
CA HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
CA HIST Cal-Sites	Historical Calsites Database
CA SCH	School Property Evaluation Program
CA CDL	Clandestine Drug Labs
CA Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register
CA PFAS	PFAS Contamination Site Location Listing

Local Land Records

CA LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CA LDS	Land Disposal Sites Listing
CA MCS	Military Cleanup Sites Listing
CA SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
EPA WATCH LIST	EPA WATCH LIST
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites

LEAD SMELTERS - Lead Smelter Sites
US AIRS - Aerometric Information Retrieval System Facility Subsystem
US MINES - Mines Master Index File
ABANDONED MINES - Abandoned Mines
DOCKET HWC - Hazardous Waste Compliance Docket Listing
UXO - Unexploded Ordnance Sites
FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
CA Cortese - "Cortese" Hazardous Waste & Substances Sites List
CA CUPA Listings - CUPA Resources List
CA DRYCLEANERS - Cleaner Facilities
CA ENF - Enforcement Action Listing
CA Financial Assurance - Financial Assurance Information Listing
CA ICE - ICE
CA HWT - Registered Hazardous Waste Transporter Database
CA MINES - Mines Site Location Listing
CA MWMP - Medical Waste Management Program Listing
CA PEST LIC - Pesticide Regulation Licenses Listing
CA PROC - Certified Processors Database
CA Notify 65 - Proposition 65 Records
CA UIC - UIC Listing
CA UIC GEO - UIC GEO (GEOTRACKER)
CA WASTEWATER PITS - Oil Wastewater Pits Listing
CA MILITARY PRIV SITES - MILITARY PRIV SITES (GEOTRACKER)
CA PROJECT - PROJECT (GEOTRACKER)
CA WDR - Waste Discharge Requirements Listing
CA NON-CASE INFO - NON-CASE INFO (GEOTRACKER)
CA WIP - Well Investigation Program Case List
CA OTHER OIL GAS - OTHER OIL & GAS (GEOTRACKER)
CA PROD WATER PONDS - PROD WATER PONDS (GEOTRACKER)
CA SAMPLING POINT - SAMPLING POINT (GEOTRACKER)
CA WELL STIM PROJ - Well Stimulation Project (GEOTRACKER)

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

CA RGA LF - Recovered Government Archive Solid Waste Facilities List
CA RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TE CONNECTIVITY LTD EPA ID:: CAD009125527	***305 CONSTITUTION DR.***	***WNW 1/2 - 1 (0.859 mi.)***	***160***	***502***

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/25/2019 has revealed that there are 7 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SANFORD METAL PROCES EPA ID:: CAD981425560	990 O'BRIEN DRIVE	SSE 1/8 - 1/4 (0.131 mi.)	K66	160
C S BIO CO EPA ID:: CAD982053183	***20 KELLY CT***	***SE 1/8 - 1/4 (0.176 mi.)***	***O99***	***263***

Lower Elevation	Address	Direction / Distance	Map ID	Page
ALZA CORPORATION EPA ID:: CAL000307981	1392 WILLOW ROAD (MP	NE 0 - 1/8 (0.070 mi.)	D37	66
PACIFIC BIOSCIENCES EPA ID:: CAR000218412	***960 HAMILTON AVE***	***ENE 1/8 - 1/4 (0.133 mi.)***	***N71***	***193***
PACIFIC BIOSCIENCES EPA ID:: CAR000185785	1010 HAMILTON CT	ENE 1/8 - 1/4 (0.175 mi.)	N98	255
CONOR MEDSYSTEMS, IN EPA ID:: CAR000179176	1003 HAMILTON CT	ENE 1/8 - 1/4 (0.176 mi.)	N104	302
RENNOVIA INC EPA ID:: CAL000350837	***1080 HAMILTON CT***	***E 1/8 - 1/4 (0.223 mi.)***	***R127***	***351***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/25/2019 has revealed that there are 13 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MENLO CARE INC EPA ID:: CAD982430670	***1350 WILLOW RD***	***SE 0 - 1/8 (0.025 mi.)***	***A17***	***47***
IONPATH INC EPA ID:: CAR000286393	960 O'BRIEN DRIVE	S 0 - 1/8 (0.117 mi.)	K59	88
SANFORD METAL PROCES EPA ID:: CAD981425580	***990 O BRIEN DR***	***SSE 1/8 - 1/4 (0.131 mi.)***	***K63***	***101***
NOREN PRODUCTS EPA ID:: CAD981985765	***1010 OBRIEN DR***	***SSE 1/8 - 1/4 (0.144 mi.)***	***K74***	***204***
RAYCHEM CORPORATION EPA ID:: CAT000617456	980 HAMILTON AVE	E 1/8 - 1/4 (0.151 mi.)	P83	222

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELLE HAVEN CHEVRON EPA ID:: CAR000130153	***1399 WILLOW RD***	***NNE 0 - 1/8 (0.024 mi.)***	***D12***	***14***
FEDERAL EXPRESS EPA ID:: CAD982348468	***1392 WILLOW RD***	***NE 0 - 1/8 (0.049 mi.)***	***D22***	***51***
OPTICAL SHIELD INC EPA ID:: CA0000038158	***1390 WILLOW RD***	***NE 0 - 1/8 (0.049 mi.)***	***D24***	***55***
ADVANCED METAL COMPO EPA ID:: CAD983620915	***1374 WILLOW RD***	***E 0 - 1/8 (0.095 mi.)***	***46***	***71***
AMB WILLOW BUSINESS EPA ID:: CAD982435562	***933 HAMILTON AVE***	***NE 1/8 - 1/4 (0.134 mi.)***	***L72***	***202***
CHEMETAL, INC EPA ID:: CAD981375447	***970 HAMILTON CT***	***ENE 1/8 - 1/4 (0.164 mi.)***	***N89***	***239***
LINCOLN WILLOW BUSIN EPA ID:: CAD983636721	***978 HAMILTON CT***	***ENE 1/8 - 1/4 (0.166 mi.)***	***N92***	***245***
MEMBRANE TECHNOLOGY EPA ID:: CAD981573421	***1030 HAMILTON COURT***	***ENE 1/8 - 1/4 (0.188 mi.)***	***R114***	***317***

State- and tribal - equivalent CERCLIS

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to,

identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the CA ENVIROSTOR list, as provided by EDR, and dated 01/28/2019 has revealed that there are 4 CA ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WILLOW OFFICE PARK	***1350-1390 WILLOW RD.***	***SE 0 - 1/8 (0.025 mi.)***	***A16***	***45***
Facility Id: 60002595				
Status: Active				
SANFORD METAL PROCES	***990 O BRIEN DR***	***SSE 1/8 - 1/4 (0.131 mi.)***	***K63***	***101***
Facility Id: 71002837				
Status: Refer: Other Agency				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MENLO PARK WEST CAMP	***312-314 CONSTITUTION***	***NNW 1/8 - 1/4 (0.220 mi.)***	***125***	***337***
Facility Id: 60001437				
Status: Certified / Operation & Maintenance				
TE CONNECTIVITY LTD	***305 CONSTITUTION DR.***	***WNW 1/2 - 1 (0.607 mi.)***	***Y158***	***384***
Facility Id: 80001600				
Facility Id: 41280137				
Status: Certified / Operation & Maintenance				
Status: Refer: RCRA				

State and tribal leaking storage tank lists

CA LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CA LUST list, as provided by EDR, has revealed that there are 23 CA LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WILLOW CORNERS LLC-U	***1283 WILLOW***	***SSW 0 - 1/8 (0.060 mi.)***	***C30***	***59***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018				
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Status: Case Closed				
Facility Id: 440061				
Facility Status: 9- Case Closed				
Global Id: T0608192683				
Global ID: T0608192683				
date9: 6/14/2000				
NOREN PRODUCTS INC	***1010 OBRIEN DR***	***SSE 1/8 - 1/4 (0.144 mi.)***	***K75***	***206***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018				
Facility Id: 449098				

Facility Status: 9- Case Closed
Global ID: T10000010914

WESTBAY STEEL INC ***1 CASEY*** ***ESE 1/8 - 1/4 (0.240 mi.)*** ***140*** ***363***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 440056
Facility Status: 9- Case Closed
Global Id: T0608192691
Global ID: T0608192691
date9: 9/20/2001

JUPITER ENGINEERING 1105 O'BRIEN SE 1/8 - 1/4 (0.244 mi.) T144 367
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 440044
Facility Status: 9- Case Closed
Global Id: T0608100804
Global ID: T0608100804
date9: 12/6/1994

RAYMOND HANDLING SYS 1215 O'BRIEN ESE 1/4 - 1/2 (0.293 mi.) V148 371
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 4/17/1990

RAYMOND HANDLING SYS ***1215 O BRIEN*** ***ESE 1/4 - 1/2 (0.293 mi.)*** ***V149*** ***371***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 440015
Facility Id: 449004
Facility Status: 9- Case Closed
Global Id: T0608100417
Global ID: T0608100417
Global ID: T0608144763

TOLLNER PAINTING INC ***525 HAMILTON*** ***W 1/4 - 1/2 (0.384 mi.)*** ***X154*** ***376***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Status: Remedial action (cleanup) Underway
Facility Id: 440074
Facility Status: 9- Case Closed
Global Id: T0608143678
Global ID: T0608143678

ALANIZ CONSTRUCTION ***519 HAMILTON*** ***W 1/4 - 1/2 (0.399 mi.)*** ***X155*** ***379***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449073
Facility Status: 9- Case Closed
Global ID: SL0608139819

SUNSET HEATING AND A ***511 HAMILTON AVENUE*** ***W 1/4 - 1/2 (0.414 mi.)*** ***X156*** ***380***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018

Facility Id: 449072
Facility Status: 9- Case Closed
Global ID: SL0608109540

SUNSET HEATING AND A ***507 HAMILTON*** ***W 1/4 - 1/2 (0.422 mi.)*** ***X157*** ***382***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Status: Remedial action (cleanup) Underway
Facility Id: 440071
Facility Status: 9- Case Closed
Global Id: T0608179055
Global ID: T0608179055

Lower Elevation	Address	Direction / Distance	Map ID	Page
FEDERAL EXPRESS	***1392 WILLOW RD***	***NE 0 - 1/8 (0.049 mi.)***	***D22***	***51***

Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449002
Facility Status: 9- Case Closed
Global ID: T0608132255

GUY'S ROOFING 831 HAMILTON N 0 - 1/8 (0.057 mi.) E29 58
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 449050
Facility Status: 9- Case Closed
Global Id: T0608175554
Global ID: T0608175554

UST SITE - FORMER WE ***851 HAMILTON*** ***N 0 - 1/8 (0.062 mi.)*** ***E31*** ***61***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 440091
Facility Status: 9- Case Closed
Global Id: T10000005607
Global ID: T10000005607

FORMER HOLLYBURNE AV ***735 HAMILTON AVENUE*** ***NNW 0 - 1/8 (0.105 mi.)*** ***J51*** ***78***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449089
Facility Status: 9- Case Closed
Global ID: T10000005311

WAREHOUSE/COLOMBO BA ***1401 WILLOW*** ***NE 0 - 1/8 (0.111 mi.)*** ***H57*** ***86***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 890002
Facility Status: 9- Case Closed
Global Id: T0608100615
Global ID: T0608100615
date9: 8/16/1994

HAMILTON APARTMENTS ***777 HAMILTON AVENUE*** ***NW 0 - 1/8 (0.122 mi.)*** ***J60*** ***90***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018

Facility Id: 449090
Facility Status: 9- Case Closed
Global ID: T10000005313

MENLO IND. PARK LIFT ***1990 HAMILTON*** ***ENE 1/8 - 1/4 (0.148 mi.)*** ***N79*** ***210***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 440036
Facility Status: 9- Case Closed
Global Id: T0608100643
Global ID: T0608100643
date9: 2/9/1995

LINCOLN WILLOW PARCE ***990 HAMILTON*** ***ENE 1/8 - 1/4 (0.170 mi.)*** ***N93*** ***248***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449049
Facility Status: 9- Case Closed
Global ID: T0608196771

ALLEN EQUIPMENT COMP ***755 HAMILTON*** ***NW 1/8 - 1/4 (0.180 mi.)*** ***Q109*** ***308***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Case Closed
date9: 3/12/1996

ALLEN EQUIPMENT COMP ***755 HAMILTON AVENUE*** ***NW 1/8 - 1/4 (0.180 mi.)*** ***Q111*** ***311***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Database: LUST, Date of Government Version: 12/10/2018
Status: Completed - Case Closed
Facility Id: 440007
Facility Status: 9- Case Closed
Global Id: T0608100013
Global ID: T0608100013

MELCHER'S IRON WORKS ***1520 WILLOW*** ***NE 1/4 - 1/2 (0.279 mi.)*** ***146*** ***369***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449005
Facility Status: 9- Case Closed
Global ID: T0608104269

ROOFING CONTRACTOR 551/555 HAMILTON AVE WNW 1/4 - 1/2 (0.354 mi.) W151 373
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449075
Facility Status: 9- Case Closed
Global ID: SL0608164334

SEGALE BROS WOOD PRO ***535 HAMILTON*** ***WNW 1/4 - 1/2 (0.369 mi.)*** ***W153*** ***374***
Database: SAN MATEO CO. LUST, Date of Government Version: 12/13/2018
Facility Id: 449079
Facility Status: 9- Case Closed
Global ID: SL0608119551

EXECUTIVE SUMMARY

CA CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CA CPS-SLIC list, as provided by EDR, has revealed that there are 13 CA CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NOREN PRODUCTS	1010 O'BRIEN DRIVE	SSE 1/8 - 1/4 (0.144 mi.)	K76	208
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T10000010914 Facility Status: Completed - Case Closed				
KITTY CLEANERS	***910 NEWBRIDGE***	***SSW 1/4 - 1/2 (0.287 mi.)***	***147***	***370***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: SL0608107863 Facility Status: Completed - Case Closed				
RAYMOND HANDLING SYS	***1215 O BRIEN***	***ESE 1/4 - 1/2 (0.293 mi.)***	***V149***	***371***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T0608144763 Facility Status: Completed - Case Closed				
ALANIZ CONSTRUCTION	***519 HAMILTON***	***W 1/4 - 1/2 (0.399 mi.)***	***X155***	***379***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: SL0608139819 Facility Status: Completed - Case Closed				
SUNSET HEATING AND A	***511 HAMILTON AVENUE***	***W 1/4 - 1/2 (0.414 mi.)***	***X156***	***380***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: SL0608109540 Facility Status: Completed - Case Closed				

Lower Elevation	Address	Direction / Distance	Map ID	Page
ENERGY TRANSFORMATIO	***1394 WILLOW***	***NE 0 - 1/8 (0.071 mi.)***	***D38***	***68***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T0608132255 Facility Status: Completed - Case Closed				
FORMER HOLLYBURNE AV	***735 HAMILTON AVENUE***	***NNW 0 - 1/8 (0.105 mi.)***	***J51***	***78***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T10000005311 Facility Status: Completed - Case Closed				
HAMILTON APARTMENTS	***777 HAMILTON AVENUE***	***NW 0 - 1/8 (0.122 mi.)***	***J60***	***90***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T10000005313 Facility Status: Completed - Case Closed				
LINCOLN WILLOW PARCE	***990 HAMILTON***	***ENE 1/8 - 1/4 (0.170 mi.)***	***N93***	***248***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: T0608196771 Facility Status: Completed - Case Closed				
SUN MICROSYSTEMS INC	***1601 WILLOW RD***	***NNE 1/8 - 1/4 (0.233 mi.)***	***S134***	***356***
Database: CPS-SLIC, Date of Government Version: 12/10/2018 Global Id: SLT2O101107 Facility Status: Open - Inactive				
MELCHER'S IRON WORKS	***1520 WILLOW***	***NE 1/4 - 1/2 (0.279 mi.)***	***146***	***369***
Database: CPS-SLIC, Date of Government Version: 12/10/2018				

Global Id: T0608104269
Facility Status: Completed - Case Closed

ROOFING CONTRACTOR ***551/555 HAMILTON*** ***WNW 1/4 - 1/2 (0.354 mi.)*** ***W152*** ***374***
Database: CPS-SLIC, Date of Government Version: 12/10/2018
Global Id: SL0608164334
Facility Status: Completed - Case Closed

SEGALE BROS WOOD PRO ***535 HAMILTON*** ***WNW 1/4 - 1/2 (0.369 mi.)*** ***W153*** ***374***
Database: CPS-SLIC, Date of Government Version: 12/10/2018
Global Id: SL0608119551
Facility Status: Completed - Case Closed

State and tribal registered storage tank lists

CA UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the CA UST list, as provided by EDR, has revealed that there is 1 CA UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON STATION # 20	1399 WILLOW RD	NNE 0 - 1/8 (0.024 mi.)	D10	13
Database: UST, Date of Government Version: 12/10/2018 Facility Id: 41-000-025160 Facility Id: FA0025160				

CA AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the CA AST list, as provided by EDR, has revealed that there are 2 CA AST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PACIFIC BIOSCIENCES	960 HAMILTON AVE	ENE 1/8 - 1/4 (0.133 mi.)	N70	192
Database: AST, Date of Government Version: 07/06/2016				
SUN MICROSYSTEMS	1601 WILLOW	NNE 1/8 - 1/4 (0.233 mi.)	S132	355
Database: AST, Date of Government Version: 07/06/2016				

State and tribal voluntary cleanup sites

CA VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the CA VCP list, as provided by EDR, and dated 01/28/2019 has revealed that there are 2 CA VCP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WILLOW OFFICE PARK	***1350-1390 WILLOW RD.***	***SE 0 - 1/8 (0.025 mi.)***	***A16***	***45***
Status: Active				
Facility Id: 60002595				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MENLO PARK WEST CAMP	***312-314 CONSTITUTION***	***NNW 1/8 - 1/4 (0.220 mi.)***	***125***	***337***
Status: Certified / Operation & Maintenance				
Facility Id: 60001437				

State and tribal Brownfields sites

CA BROWNFIELDS: A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

A review of the CA BROWNFIELDS list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 CA BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KITTY CLEANERS	***910 NEWBRIDGE***	***SSW 1/4 - 1/2 (0.287 mi.)***	***147***	***370***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CA CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CA CERS HAZ WASTE list, as provided by EDR, and dated 04/09/2019 has revealed that there are 7 CA CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SANFORD METAL PROCES	***990 O'BRIEN DRIVE***	***SSE 1/8 - 1/4 (0.131 mi.)***	***K65***	***105***
ELECTRO MOTION INC	***1001 OBRIEN DR***	***SSE 1/8 - 1/4 (0.132 mi.)***	***M68***	***163***
A & B PROPERTY CORP	***990 HAMILTON***	***ESE 1/8 - 1/4 (0.150 mi.)***	***I82***	***216***
AVALANCHE BIOTECHNOL	***1035 OBRIEN DR***	***SSE 1/8 - 1/4 (0.160 mi.)***	***M87***	***230***
C S BIO	***20 KELLY CT***	***SE 1/8 - 1/4 (0.176 mi.)***	***O101***	***274***

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELLE HAVEN CHEVRON	***1399 WILLOW RD***	***NNE 0 - 1/8 (0.024 mi.)***	***D13***	***18***
PACIFIC BIOSCIENCES	***960 HAMILTON AVE***	***ENE 1/8 - 1/4 (0.133 mi.)***	***N69***	***170***

Local Lists of Registered Storage Tanks

CA SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the CA SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 CA SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VACANT COMMERCIAL	***1105 O'BRIEN DR***	***SE 1/8 - 1/4 (0.240 mi.)***	***T139***	***362***
Status: A Tank Status: A Comp Number: 440004				

Lower Elevation	Address	Direction / Distance	Map ID	Page
ALLEN EQUIPMENT	***755 HAMILTON AVE***	***NW 1/8 - 1/4 (0.180 mi.)***	***Q108***	***307***
Comp Number: 440065				

CA HIST UST: Historical UST Registered Database.

A review of the CA HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 4 CA HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SANFORD METAL PROCES	990 OBRIAN DRIVE	SSE 1/8 - 1/4 (0.131 mi.)	K64	104
SANFORD METAL PROCES	***990 O'BRIEN DRIVE***	***SSE 1/8 - 1/4 (0.131 mi.)***	***K65***	***105***
Facility Id: 00000047988				

Lower Elevation	Address	Direction / Distance	Map ID	Page
UST SITE - FORMER WE	***851 HAMILTON***	***N 0 - 1/8 (0.062 mi.)***	***E31***	***61***
Facility Id: 00000068751				
ALLEN EQUIP COMPANY	755 HAMILTON AVE	NW 1/8 - 1/4 (0.180 mi.)	Q110	310
Facility Id: 00000065860				

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ALLEN EQUIPMENT	***755 HAMILTON AVE***	***NW 1/8 - 1/4 (0.180 mi.)***	***Q108***	***307***
Facility Id: 41000053 Status: I				

EXECUTIVE SUMMARY

CA CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CA CERS TANKS list, as provided by EDR, and dated 04/09/2019 has revealed that there are 2 CA CERS TANKS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELLE HAVEN CHEVRON	***1399 WILLOW RD***	***NNE 0 - 1/8 (0.024 mi.)***	***D13***	***18***
PACIFIC BIOSCIENCES	***960 HAMILTON AVE***	***ENE 1/8 - 1/4 (0.133 mi.)***	***N69***	***170***

Local Land Records

CA DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the CA DEED list, as provided by EDR, and dated 03/04/2019 has revealed that there are 2 CA DEED sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LINCOLN WILLOW PARCE	***990 HAMILTON***	***ENE 1/8 - 1/4 (0.170 mi.)***	***N93***	***248***
Status: COMPLETED - CASE CLOSED				
Envirostor ID: T0608196771				
MENLO PARK WEST CAMP	***312-314 CONSTITUTION***	***NNW 1/8 - 1/4 (0.220 mi.)***	***125***	***337***
Status: CERTIFIED / OPERATION & MAINTENANCE				
Envirostor ID: 60001437				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there are 9 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
INVISAGE TECHNOLOGIE	***990 HAMILTON AVE***	***ESE 1/8 - 1/4 (0.150 mi.)***	***I81***	***212***
EPA ID:: CAR000235911				
LINEAR OPTIONS	***1 KELLY CT***	***SE 1/8 - 1/4 (0.194 mi.)***	***O117***	***320***
EPA ID:: CAR000080119				
ALZA CORPORATION	***1050 HAMILTON CT***	***E 1/8 - 1/4 (0.198 mi.)***	***P121***	***327***
EPA ID:: CAD981973712				
QLT PLUG DELIVERY	1098 HAMILTON CT	E 1/8 - 1/4 (0.235 mi.)	R136	359
EPA ID:: CAR000225201				

Lower Elevation	Address	Direction / Distance	Map ID	Page
FACEBOOK	925 HAMILTON AVE	NE 0 - 1/8 (0.107 mi.)	H53	82

EPA ID:: CAL000423096				
CARDIOKINETIX INC EPA ID:: CAL000340777	925 HAMILTON AVE	NE 0 - 1/8 (0.107 mi.)	H54	83
ONSITE DENTAL EPA ID:: CAL000423117	925 HAMILTON AVE	NE 0 - 1/8 (0.107 mi.)	H55	84
CETERIX ORTHOPAEDICS EPA ID:: CAL000388582	959 HAMILTON AVE	ENE 1/8 - 1/4 (0.153 mi.)	L85	226
FACEBOOK EPA ID:: CAL000427994	990 HAMILTON COURT	ENE 1/8 - 1/4 (0.170 mi.)	N94	252

Hazardous Materials Business Plan, Hazardous Waste Generator, Underground Storage tanks

A review of the CA San Mateo Co. BI list, as provided by EDR, and dated 03/04/2019 has revealed that there are 85 CA San Mateo Co. BI sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOLESKA MARKET Facility Id: FA0023769	1305 WILLOW	SSW 0 - 1/8 (0.017 mi.)	C8	13
MENLO CARE INC Facility Id: FA0011207 Facility Id: FA0022600	1350 WILLOW	SE 0 - 1/8 (0.025 mi.)	A18	49
WILLOW CORNERS LLC-U Facility Id: FA0037606	***1283 WILLOW***	***SSW 0 - 1/8 (0.060 mi.)***	***C30***	***59***
WILLOW RD PUMPING ST Facility Id: FA0013867	1298 WILLOW	S 0 - 1/8 (0.070 mi.)	F34	65
WILLOW WINE STORAGE, Facility Id: FA0048917 Facility Id: FA0026961	1320 WILLOW	SSE 0 - 1/8 (0.073 mi.)	G41	70
FACEBOOK MPK58 MICRO Facility Id: FA0061818	1360 WILLOW	ESE 0 - 1/8 (0.101 mi.)	I48	76
PRODUCT HEALTH Facility Id: FA0037247 Facility Id: FA0025673 Facility Id: FA0005480	1360 WILLOW	ESE 0 - 1/8 (0.101 mi.)	I49	76
FORTEBIO INC Facility Id: FA0036754	1360 WILLOW	ESE 0 - 1/8 (0.101 mi.)	I50	77
ALS ROOFING SUPPLY Facility Id: FA0024256	985 OBRIEN	SSE 0 - 1/8 (0.105 mi.)	G52	81
IONPATH INC Facility Id: FA0064675	960 OBRIEN	S 0 - 1/8 (0.117 mi.)	K58	88
SANFORD METAL PROCES Facility Id: FA0017617	***990 O'BRIEN DRIVE***	***SSE 1/8 - 1/4 (0.131 mi.)***	***K65***	***105***
ELECTRO MOTION, INC. Facility Id: FA0055976 Facility Id: FA0023928	1001 OBRIEN	SSE 1/8 - 1/4 (0.132 mi.)	M67	162
NOREN PRODUCTS Facility Id: FA0007584	***1010 OBRIEN DR***	***SSE 1/8 - 1/4 (0.144 mi.)***	***K74***	***204***
DM FIGLEY CO., INC.	10 KELLY	SE 1/8 - 1/4 (0.145 mi.)	O77	209

Facility Id: FA0056976				
D M FIGLEY CO INC Facility Id: FA0005467	10 KELLY	SE 1/8 - 1/4 (0.145 mi.)	O78	209
ADVERUM BIOTECHNOLGI Facility Id: FA0054963	1035 OBRIEN	SSE 1/8 - 1/4 (0.160 mi.)	M88	239
US GEOLOGICAL SURVEY Facility Id: FA0023002	1020 OBRIEN	SSE 1/8 - 1/4 (0.166 mi.)	M91	245
PARSONS MANUFACTURIN Facility Id: FA0012616	1055 OBRIEN	SE 1/8 - 1/4 (0.174 mi.)	M96	253
C S BIO CO Facility Id: FA0029292	***20 KELLY COURT***	***SE 1/8 - 1/4 (0.176 mi.)***	***O100***	***270***
LINEAR OPTIONS Facility Id: FA0022911	***1 KELLY CT***	***SE 1/8 - 1/4 (0.194 mi.)***	***O117***	***320***
ALZA CORPORATION Facility Id: FA0045761 Facility Id: FA0017631 Facility Id: FA0024559 Facility Id: FA0027091	1050 HAMILTON	E 1/8 - 1/4 (0.198 mi.)	P120	326
WESTERN ALLIED CORP Facility Id: FA0027332	22 KELLY	SE 1/8 - 1/4 (0.202 mi.)	T123	336
NOREN PRODUCTS INC Facility Id: FA0022649	1075 OBRIEN	SE 1/8 - 1/4 (0.216 mi.)	T124	337
WESTT INC Facility Id: FA0028360	1090 OBRIEN	SE 1/8 - 1/4 (0.235 mi.)	T135	358
BIOPHARMX Facility Id: FA0045981 Facility Id: FA0055428	1098 HAMILTON	E 1/8 - 1/4 (0.235 mi.)	R137	361
WEST, INC Facility Id: FA0026962	1090 O'BRIEN	SE 1/8 - 1/4 (0.240 mi.)	T138	362
WESTBAY STEEL INC Facility Id: FA0036964 Facility Id: FA0052070 Facility Id: FA0022891	***1 CASEY***	***ESE 1/8 - 1/4 (0.240 mi.)***	***140***	***363***
GUALDULAHARA TAQUERI Facility Id: FA0009160	1211 WILLOW	SSW 1/8 - 1/4 (0.241 mi.)	U142	366
KATEEVA INC Facility Id: FA0055943	1105 OBRIEN	SE 1/8 - 1/4 (0.244 mi.)	T143	367
QUALITY MARKET Facility Id: FA0000552	1209 WILLOW	SSW 1/8 - 1/4 (0.244 mi.)	U145	369

Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
MENLO PARK FIRE DIST Facility Id: FA0050833	1376 WILLOW	NE 0 - 1/8 (0.021 mi.)	B9	13
BELLE HAVEN CHEVRON Facility Id: FA0025160	1399 WILLOW	NNE 0 - 1/8 (0.024 mi.)	D14	44
CHEVRON STATION INC Facility Id: FA0026557	1399 WILLOW	NNE 0 - 1/8 (0.024 mi.)	D15	45
PRIVATE SOCIAL CLUB	871 HAMILTON	NNE 0 - 1/8 (0.046 mi.)	D19	49

Facility Id: FA0024917				
DASHI JAPANESE RESTA Facility Id: FA0025638	873 HAMILTON	NNE 0 - 1/8 (0.047 mi.)	D20	50
VIDA MED Facility Id: FA0057593 Facility Id: FA0023077	1380 WILLOW	ENE 0 - 1/8 (0.048 mi.)	21	50
FEDERAL EXPRESS Facility Id: FA0023003 Facility Id: FA0026893	***1392 WILLOW RD***	***NE 0 - 1/8 (0.049 mi.)***	***D22***	***51***
INCUBE LABS Facility Id: FA0040755	1390 WILLOW	NE 0 - 1/8 (0.049 mi.)	D23	55
INCUBE, INC. Facility Id: FA0015320	1390 WILLOW	NE 0 - 1/8 (0.049 mi.)	D25	57
MI TAQUERIA Facility Id: FA0025652	875 HAMILTON	NNE 0 - 1/8 (0.050 mi.)	D26	57
MS LIZZIES Facility Id: FA0026195	877 HAMILTON	NNE 0 - 1/8 (0.055 mi.)	D27	58
FIVE STAR PIZZA Facility Id: FA0029118	877 HAMILTON	NNE 0 - 1/8 (0.055 mi.)	D28	58
UST SITE - FORMER WE Facility Id: FA0054796	***851 HAMILTON***	***N 0 - 1/8 (0.062 mi.)***	***E31***	***61***
SAJJ Facility Id: FA0054040	879 HAMILTON	NNE 0 - 1/8 (0.066 mi.)	D32	64
BAYLAND DRILLING INC Facility Id: FA0022819	811 HAMILTON	NNW 0 - 1/8 (0.070 mi.)	E35	65
ENERGY TRANSFORMATIO Facility Id: FA0022788	***1394 WILLOW***	***NE 0 - 1/8 (0.071 mi.)***	***D38***	***68***
JACK IN THE BOX #347 Facility Id: FA0024940	1401 WILLOW	NNE 0 - 1/8 (0.072 mi.)	D39	69
STARBUCKS COFFEE CO Facility Id: FA0025614	1401 WILLOW	NNE 0 - 1/8 (0.072 mi.)	D40	69
GOLDEN FALAFEL Facility Id: FA0025570	883 HAMILTON	NE 0 - 1/8 (0.082 mi.)	H42	70
SAJJ Facility Id: FA0051911	883 HAMILTON	NE 0 - 1/8 (0.082 mi.)	H43	70
TOGOS/BASKIN ROBBINS Facility Id: FA0026084	885 HAMILTON	NE 0 - 1/8 (0.083 mi.)	H44	71
TOGOS MENLO PARK Facility Id: FA0040807	885 HAMILTON	NE 0 - 1/8 (0.083 mi.)	H45	71
ADVANCED METAL COMPO Facility Id: FA0022129	***1374 WILLOW RD***	***E 0 - 1/8 (0.095 mi.)***	***46***	***71***
CARDIOKINETIX INC Facility Id: FA0029135 Facility Id: FA0046189	925 HAMILTON	NE 0 - 1/8 (0.100 mi.)	H47	75
ENDOTEX ANNEX Facility Id: FA0024811	931 HAMILTON	NE 0 - 1/8 (0.109 mi.)	H56	85
UST SITE - 777 HAMIL	777 HAMILTON	NW 0 - 1/8 (0.122 mi.)	J61	100

Facility Id: FA0056778				
MEMBRANE TECHNOLOGY Facility Id: FA0046231	943 HAMILTON	NE 1/8 - 1/4 (0.128 mi.)	L62	100
MEMBRANE TECHNOLOGY Facility Id: FA0029449 Facility Id: FA0046230	953 HAMILTON	ENE 1/8 - 1/4 (0.141 mi.)	L73	204
PROFESSIONAL TREE CA Facility Id: FA0046507	767 HAMILTON	NW 1/8 - 1/4 (0.148 mi.)	J80	212
CETERIX ORTHOPAEDICS Facility Id: FA0050420	***959 HAMILTON AVE***	***ENE 1/8 - 1/4 (0.153 mi.)***	***L84***	***224***
HEARTVISTA Facility Id: FA0052963	***998 HAMILTON***	***NE 1/8 - 1/4 (0.154 mi.)***	***L86***	***228***
CHEMETAL Facility Id: FA0017642	***970 HAMILTON COURT***	***ENE 1/8 - 1/4 (0.164 mi.)***	***N90***	***243***
LINCOLN WILLOW BUSIN Facility Id: FA0027189	***978 HAMILTON CT***	***ENE 1/8 - 1/4 (0.166 mi.)***	***N92***	***245***
LINCOLN WILLOW PARCE Facility Id: FA0045096	***990 HAMILTON***	***ENE 1/8 - 1/4 (0.170 mi.)***	***N93***	***248***
MENLO INDUSTRIAL PUM Facility Id: FA0022483	1002 HAMILTON	ENE 1/8 - 1/4 (0.173 mi.)	N95	253
ENDOTEX Facility Id: FA0037329 Facility Id: FA0048436 Facility Id: FA0024220	1010 HAMILTON	ENE 1/8 - 1/4 (0.175 mi.)	N97	254
CONOR MEDSYSTEMS Facility Id: FA0033655	1003 HAMILTON	ENE 1/8 - 1/4 (0.176 mi.)	N102	300
DELTAGEN INC Facility Id: FA0027396 Facility Id: FA0028223 Facility Id: FA0024770 Facility Id: FA0025672	***1003 HAMILTON***	***ENE 1/8 - 1/4 (0.176 mi.)***	***N103***	***300***
PACIFIC BIOSCIENCES Facility Id: FA0048912	1005 HAMILTON	ENE 1/8 - 1/4 (0.177 mi.)	N105	305
CALYDON Facility Id: FA0022632 Facility Id: FA0025311	1014 HAMILTON	ENE 1/8 - 1/4 (0.177 mi.)	N106	306
ANOSYS, INC. Facility Id: FA0027394	1014 HAMILTON	ENE 1/8 - 1/4 (0.177 mi.)	N107	307
ALLEN EQUIPMENT COMP Facility Id: FA0010081 Facility Id: FA0002764	***755 HAMILTON AVENUE***	***NW 1/8 - 1/4 (0.180 mi.)***	***Q111***	***311***
PIXTERRA, INC Facility Id: FA0027966	1020 HAMILTON	ENE 1/8 - 1/4 (0.182 mi.)	N112	313
MPK 20 Facility Id: FA0057642	***1 FACEBOOK***	***NNW 1/8 - 1/4 (0.184 mi.)***	***113***	***313***
OMNI PV INC Facility Id: FA0046446 Facility Id: FA0015319	1030 HAMILTON	ENE 1/8 - 1/4 (0.188 mi.)	R115	319
DEJA QS CAFE	1038 HAMILTON	ENE 1/8 - 1/4 (0.194 mi.)	R116	320

Facility Id: FA0000492				
SATELLITE HEALTHCARE Facility Id: FA0049552	1040 HAMILTON	ENE 1/8 - 1/4 (0.195 mi.)	R118	324
AT & T MOBILITY-PG&E Facility Id: FA0047039	1599 WILLOW	NNE 1/8 - 1/4 (0.200 mi.)	S122	336
MPK 40 Facility Id: FA0060770	1080 HAMILTON	E 1/8 - 1/4 (0.223 mi.)	R126	351
RENNOVIA INC Facility Id: FA0045979	1080 HAMILTON	E 1/8 - 1/4 (0.223 mi.)	R128	353
FUKI SUSHI JAPANESE Facility Id: FA0051502	1601 WILLOW	NNE 1/8 - 1/4 (0.233 mi.)	S129	354
FACEBOOK Facility Id: FA0050313	1601 WILLOW	NNE 1/8 - 1/4 (0.233 mi.)	S130	354
FACEBOOK Facility Id: FA0052240	1601 WILLOW	NNE 1/8 - 1/4 (0.233 mi.)	S131	354
ORACLE AMERICA INC Facility Id: FA0023962	1601 WILLOW	NNE 1/8 - 1/4 (0.233 mi.)	S133	355
SAGEHILL ENGINEERING Facility Id: FA0022473	1115 HAMILTON	ENE 1/8 - 1/4 (0.240 mi.)	141	366

CA HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the CA HAZNET list, as provided by EDR, and dated 12/31/2017 has revealed that there is 1 CA HAZNET site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GATEWAY APARTMENTS GEPAID: CAC002867888	1361 WILLOW RD APT C	0 - 1/8 (0.000 mi.)	B7	12

CA HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the CA HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 9 CA HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VACANT COMMERCIAL Reg Id: 41-0858	***1105 O'BRIEN DR***	***SE 1/8 - 1/4 (0.240 mi.)***	***T139***	***362***
WESTBAY STEEL INC Reg Id: 3261	***1 CASEY***	***ESE 1/8 - 1/4 (0.240 mi.)***	***140***	***363***
RAYMOND HANDLING SYS	***1215 O BRIEN***	***ESE 1/4 - 1/2 (0.293 mi.)***	***V149***	***371***

Reg Id: 41-0438

RAYMOND HANDLING SYS Reg Id: 41-1195	1215 O BRIEN	ESE 1/4 - 1/2 (0.293 mi.)	V150	373

Lower Elevation	Address	Direction / Distance	Map ID	Page
ENERGY TRANSFORMATIO Reg Id: 41-0942	***1394 WILLOW***	***NE 0 - 1/8 (0.071 mi.)***	***D38***	***68***
WAREHOUSE/COLOMBO BA Reg Id: 41-0644	***1401 WILLOW***	***NE 0 - 1/8 (0.111 mi.)***	***H57***	***86***
LINCOLN WILLOW PARCE Reg Id: 41-1165	***990 HAMILTON***	***ENE 1/8 - 1/4 (0.170 mi.)***	***N93***	***248***
ALLEN EQUIPMENT COMP Reg Id: 41-0013	***755 HAMILTON AVENUE***	***NW 1/8 - 1/4 (0.180 mi.)***	***Q111***	***311***
MELCHER'S IRON WORKS Reg Id: 41-0999	***1520 WILLOW***	***NE 1/4 - 1/2 (0.279 mi.)***	***146***	***369***

CA HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the CA HWP list, as provided by EDR, and dated 02/19/2019 has revealed that there is 1 CA HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RAYCHEM CORPORATION EPA Id: CAD009125527 Cleanup Status: CLOSED	***300 CONSTITUTION DRI***	***WNW 1/2 - 1 (0.607 mi.)***	***Y159***	***493***

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 01/01/2019 has revealed that there is 1 NY MANIFEST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALZA CORPORATION EPA ID: CAD981973712	1050 HAMILTON CT	E 1/8 - 1/4 (0.198 mi.)	P119	324

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR

researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BELCHER CLEVIE	1300 WILLOW RD	S 0 - 1/8 (0.070 mi.)	F36	66

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON CSI 1717	1399 WILLOW RD	NNE 0 - 1/8 (0.024 mi.)	D11	14

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
COST-LESS CLEANERS	879 HAMILTON AVE	NNE 0 - 1/8 (0.066 mi.)	D33	65

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
FORMER RAIL SPUR EAST PALO ALTO RI	CA CPS-SLIC
SUN MICROSYSTEMS INC	CA CPS-SLIC

OVERVIEW MAP - 5654286.2S

0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	The Gateway Gardens Apartments	CLIENT:	Integrated Property Analysis
ADDRESS:	1317 - 1345 Willow Road Menlo Park CA 94025	CONTACT:	Michael Atallah
		INQUIRY #:	5654286.2s
LAT/LONG:	37.477617 / 122.152572	DATE:	May 16, 2019 12:34 pm

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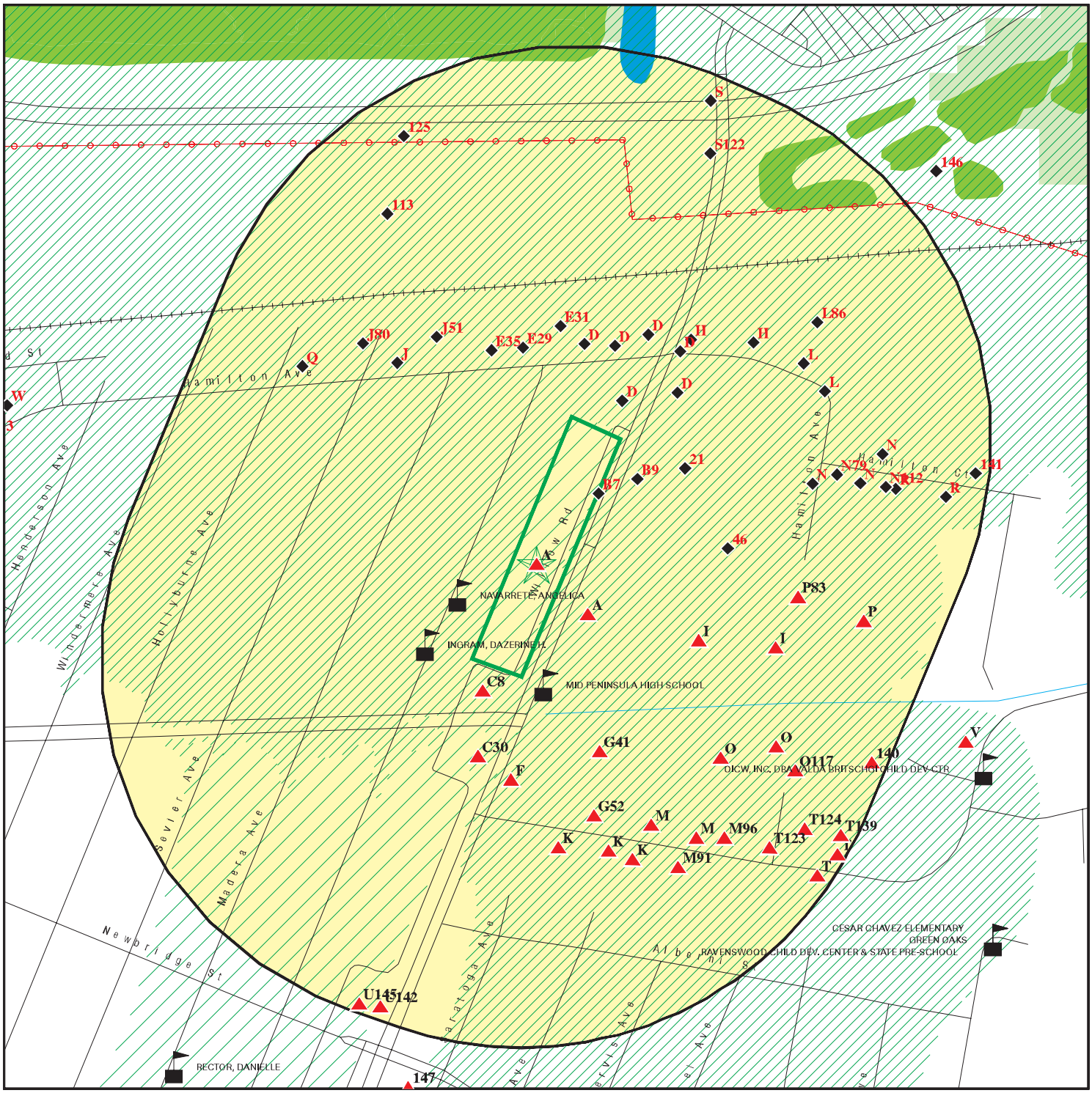
DETAIL MAP - 5654286.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	The Gateway Gardens Apartments	CLIENT:	Integrated Property Analysis
ADDRESS:	1317 - 1345 Willow Road Menlo Park CA 94025	CONTACT:	Michael Atallah
LAT/LONG:	37.477617 / 122.152572	INQUIRY #:	5654286.2s
		DATE:	May 16, 2019 12:35 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	1	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		1	6	NR	NR	NR	7
RCRA-SQG	0.250		6	7	NR	NR	NR	13
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
CA RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
CA ENVIROSTOR	1.000		1	2	0	1	NR	4
State and tribal landfill and/or solid waste disposal site lists								
CA SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
CA LUST	0.500		7	7	9	NR	NR	23

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CA CPS-SLIC	0.500		3	3	7	NR	NR	13
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
CA UST	0.250		1	0	NR	NR	NR	1
CA AST	0.250		0	2	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
CA VCP	0.500		1	1	0	NR	NR	2
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
CA BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	0	NR	0
CA SCH	0.250		0	0	NR	NR	NR	0
CA CDL	0.001		0	NR	NR	NR	NR	0
CA CERS HAZ WASTE	0.250		1	6	NR	NR	NR	7
CA Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
CA PFAS	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA SWEEPS UST	0.250		0	2	NR	NR	NR	2
CA HIST UST	0.250		1	3	NR	NR	NR	4
CA FID UST	0.250		0	1	NR	NR	NR	1
CA CERS TANKS	0.250		1	1	NR	NR	NR	2
Local Land Records								
CA LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
CA DEED	0.500		0	2	0	NR	NR	2
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CA CHMIRS	0.001		0	NR	NR	NR	NR	0
CA LDS	0.001		0	NR	NR	NR	NR	0
CA MCS	0.001		0	NR	NR	NR	NR	0
CA SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		3	6	NR	NR	NR	9
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
CA San Mateo Co. BI	0.250		36	49	NR	NR	NR	85
CA Cortese	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA CUPA Listings	0.250		0	0	NR	NR	NR	0
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA EMI	0.001		0	NR	NR	NR	NR	0
CA ENF	0.001		0	NR	NR	NR	NR	0
CA Financial Assurance	0.001		0	NR	NR	NR	NR	0
CA HAZNET	0.001	6	1	NR	NR	NR	NR	7
CA ICE	0.001		0	NR	NR	NR	NR	0
CA HIST CORTESE	0.500		2	4	3	NR	NR	9
CA HWP	1.000		0	0	0	1	NR	1
CA HWT	0.250		0	0	NR	NR	NR	0
NY MANIFEST	0.250		0	1	NR	NR	NR	1
CA MINES	0.001		0	NR	NR	NR	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
CA NPDES	0.001		0	NR	NR	NR	NR	0
CA PEST LIC	0.001		0	NR	NR	NR	NR	0
CA PROC	0.500		0	0	0	NR	NR	0
CA Notify 65	1.000		0	0	0	0	NR	0
CA UIC	0.001		0	NR	NR	NR	NR	0
CA UIC GEO	0.001		0	NR	NR	NR	NR	0
CA WASTEWATER PITS	0.500		0	0	0	NR	NR	0
CA WDS	0.001		0	NR	NR	NR	NR	0
CA MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
CA PROJECT	0.001		0	NR	NR	NR	NR	0
CA WDR	0.001		0	NR	NR	NR	NR	0
CA CIWQS	0.001		0	NR	NR	NR	NR	0
CA CERS	0.001		0	NR	NR	NR	NR	0
CA NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
CA WIP	0.250		0	0	NR	NR	NR	0
CA OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
CA PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
CA SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
CA WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	0.001		0	NR	NR	NR	NR	0
CA RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		6	68	103	20	3	0	200

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **THE GATEWAY** **CA HAZNET** **S112977678**
Target **1345 WILLOW RD UNIT F** **N/A**
Property **MENLO PARK, CA 94025**

Site 1 of 9 in cluster A

Actual: **10 ft.**

HAZNET:

Site Name:	THE GATEWAY
Year:	2010
GEPAID:	CAC002642005
Contact:	JENNIFER JOHNSON
Telephone:	6503235615
Mailing Name:	Not reported
Mailing Address:	1345 WILLOW RD UNIT F
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	Not reported
TSD EPA ID:	CAD982042475
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	4
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	THE GATEWAY
Year:	2009
GEPAID:	CAC002642005
Contact:	JENNIFER JOHNSON
Telephone:	6503235615
Mailing Name:	Not reported
Mailing Address:	1345 WILLOW RD UNIT F
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	Not reported
TSD EPA ID:	CAD981382732
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	THE GATEWAY
Year:	2009
GEPAID:	CAC002642005
Contact:	JENNIFER JOHNSON
Telephone:	6503235615
Mailing Name:	Not reported
Mailing Address:	1345 WILLOW RD UNIT F
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	Not reported
TSD EPA ID:	CAD982042475
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

THE GATEWAY (Continued) **S112977678**

Tons: 2
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

A2 **MID-PEN HOUSING** **CA HAZNET** **S113778458**
Target **1321 WILLOW RD STE C & F** **N/A**
Property **MENLO PARK, CA 94025**

Site 2 of 9 in cluster A

Actual: **10 ft.**

HAZNET:
Site Name: MID-PEN HOUSING
Year: 2012
GEPAID: CAC002692022
Contact: mike pereira
Telephone: 6502696000
Mailing Name: Not reported
Mailing Address: 303 VINTAGE PARK DR STE 250
Mailing City,St,Zip: FOSTER CITY, CA 944041176
Gen County: San Mateo
TSD EPA ID: CAD981382732
TSD County: Alameda
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

A3 **GATEWAY APARTMENTS** **CA HAZNET** **S117301376**
Target **1345 WILLOW RD UNIT 1317A** **N/A**
Property **MENLO PARK, CA 94025**

Site 3 of 9 in cluster A

Actual: **10 ft.**

HAZNET:
Site Name: GATEWAY APARTMENTS
Year: 2013
GEPAID: CAC002744413
Contact: GATEWAY APARTMENTS
Telephone: 6508340490
Mailing Name: Not reported
Mailing Address: 1345 WILLOW RD UNIT 1317A
Mailing City,St,Zip: MENLO PARK, CA 940251533
Gen County: San Mateo
TSD EPA ID: CAD981382732
TSD County: Alameda
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.8
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

A4 **GATEWAY APARTMENTS** **CA HAZNET** **S121003351**
Target **1339 WILLOW RD** **N/A**
Property **MENLO PARK, CA 94025**

Site 4 of 9 in cluster A

Actual: HAZNET:
10 ft.

Site Name:	GATEWAY APARTMENTS
Year:	2016
GEPAID:	CAC002867231
Contact:	OSMIN ZELAYA
Telephone:	4089531400
Mailing Name:	Not reported
Mailing Address:	1339 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251534
Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.23
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

A5 **MID PEN HOUSING** **CA HAZNET** **S117288536**
Target **1345 WILLOW RD** **N/A**
Property **MENLO PARK, CA 94025**

Site 5 of 9 in cluster A

Actual: HAZNET:
10 ft.

Site Name:	MID PEN HOUSING
Year:	2013
GEPAID:	CAC002725183
Contact:	SHAMETRA ROCHELLE
Telephone:	6503235615
Mailing Name:	Not reported
Mailing Address:	1345 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251533
Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

A6
Target Property

ROBERT MEYERS
1345 WILLOW RD UNIT 1321 A&B
MENLO PARK, CA 94025

CA HAZNET **S112991525**
N/A

Site 6 of 9 in cluster A

Actual:
10 ft.

HAZNET:

Site Name:	ROBERT MEYERS
Year:	2011
GEPAID:	CAC002673482
Contact:	ROBERT MEYERS
Telephone:	6503235615
Mailing Name:	Not reported
Mailing Address:	1345 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251533
Gen County:	Not reported
TSD EPA ID:	CAD981382732
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

B7
< 1/8
0.000 mi.
2 ft.

GATEWAY APARTMENTS
1361 WILLOW RD APT C
MENLO PARK, CA 94025

CA HAZNET **S121003751**
N/A

Site 1 of 2 in cluster B

Relative:
Lower

Actual:
8 ft.

HAZNET:

Site Name:	GATEWAY APARTMENTS
Year:	2016
GEPAID:	CAC002867888
Contact:	OSMIN ZELAYA
Telephone:	4089531400
Mailing Name:	Not reported
Mailing Address:	1361 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251529
Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.23
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

C8
SSW
< 1/8
0.017 mi.
91 ft.

SOLESKA MARKET — **CA San Mateo Co. BI** — **S123180719**
1305 WILLOW — **N/A**
MENLO PARK, CA 94025

Site 1 of 2 in cluster C

Relative:
Higher

Actual:
11 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0023769
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041991
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

B9
NE
< 1/8
0.021 mi.
110 ft.

MENLO PARK FIRE DIST TASK FORCE 3 — **CA San Mateo Co. BI** — **S111711478**
1376 WILLOW — **N/A**
MENLO PARK, CA 94025

Site 2 of 2 in cluster B

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0050833
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0070570
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0050833
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0070569
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Active, billable

D10
NNE
< 1/8
0.024 mi.
125 ft.

CHEVRON STATION # 207718 — **CA UST** — **U004050999**
1399 WILLOW RD — **N/A**
MENLO PARK, CA 94025

Site 1 of 21 in cluster D

Relative:
Lower

Actual:
8 ft.

UST:

Facility ID:	FA0025160
Permitting Agency:	SAN MATEO COUNTY
Latitude:	37.480607
Longitude:	-122.150452

Facility ID:	41-000-025160
Permitting Agency:	San Mateo County Environmental Health
Latitude:	37.479279
Longitude:	-122.15184

D11 **CHEVRON CSI 1717** **EDR Hist Auto** **1021502532**
NNE **1399 WILLOW RD** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.024 mi.
125 ft. **Site 2 of 21 in cluster D**

Relative: EDR Hist Auto
Lower

Actual:
8 ft.

Year:	Name:	Type:
2001	BELLE HAVEN CHEVRON	Gasoline Service Stations
2002	BELLE HAVEN CHEVRON	Gasoline Service Stations
2005	CHEVRON CSI 1717	Gasoline Service Stations, NEC
2006	CHEVRON CSI 1717	Gasoline Service Stations, NEC
2007	CHEVRON CSI 1717	Gasoline Service Stations, NEC
2008	CHEVRON CSI 1717	Gasoline Service Stations, NEC
2009	CHEVRON CSI 1717	Gasoline Service Stations, NEC
2010	CHEVRON CSI 1717	Gasoline Service Stations, NEC

D12 **BELLE HAVEN CHEVRON 207718** **RCRA-SQG** **1006805620**
NNE **1399 WILLOW RD** **FINDS** **CAR000130153**
< 1/8 **MENLO PARK, CA 94025** **ECHO**
0.024 mi. **CA HAZNET**
125 ft. **Site 3 of 21 in cluster D**

Relative: RCRA-SQG:
Lower
Date form received by agency: 11/25/2002

Actual:
8 ft.

Facility name:	CHEVRON 207718
Facility address:	1399 WILLOW RD MENLO PARK, CA 94025
EPA ID:	CAR000130153
Mailing address:	PO BOX 6004 SAN RAMON, CA 94025
Contact:	KATHY L NORRIS
Contact address:	PO BOX 6004 SAN RAMON, CA 94025
Contact country:	US
Contact telephone:	925-842-5931
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CHEVRON
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	10/31/2002
Owner/Op end date:	Not reported

BELLE HAVEN CHEVRON 207718 (Continued) **1006805620**

Owner/operator name: CHEVRON PRODUCTS CO
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/31/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Historical Generators:
Date form received by agency: 11/25/2002
Site name: CHEVRON 207718
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110014377478

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal

BELLE HAVEN CHEVRON 207718 (Continued) **1006805620**

facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1006805620
Registry ID:	110014377478
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110014377478

HAZNET:

Site Name:	CHEVRON 207718
Year:	2017
GEPAID:	CAR000130153
Contact:	KWAME AWUKU
Telephone:	8773866044
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	San Mateo
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.141
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo

Site Name:	CHEVRON 207718
Year:	2017
GEPAID:	CAR000130153
Contact:	KWAME AWUKU
Telephone:	8773866044
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	San Mateo
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.06255

BELLE HAVEN CHEVRON 207718 (Continued) **1006805620**

Cat Decode:	Unspecified oil-containing waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Site Name:	CHEVRON 207718
Year:	2017
GEPAID:	CAR000130153
Contact:	KWAME AWUKU
Telephone:	8773866044
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	San Mateo
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.135
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Site Name:	CHEVRON 207718
Year:	2016
GEPAID:	CAR000130153
Contact:	KWAME AWUKU
Telephone:	8773866044
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	San Mateo
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0815
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo
Site Name:	CHEVRON 207718
Year:	2016
GEPAID:	CAR000130153
Contact:	KWAME AWUKU
Telephone:	8773866044
Mailing Name:	Not reported
Mailing Address:	PO BOX 6004
Mailing City,St,Zip:	SAN RAMON, CA 945830000
Gen County:	San Mateo
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

BELLE HAVEN CHEVRON 207718 (Continued) **1006805620**

(H010-H129) Or (H131-H135)
Tons: 0.1215
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
33 additional CA_HAZNET: record(s) in the EDR Site Report.

D13 **BELLE HAVEN CHEVRON** **CA CERS HAZ WASTE** **S121739921**
NNE **1399 WILLOW RD** **CA CERS TANKS** **N/A**
< 1/8 **MENLO PARK, CA 94025** **CA CERS**
0.024 mi.
125 ft. **Site 4 of 21 in cluster D**

Relative:
Lower

Actual:
8 ft.

CERS HAZ WASTE:
Site ID: 11647
CERS ID: 10067494
CERS Description: Hazardous Waste Generator

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 02-19-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Start reviewing UST installation plans
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-23-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Final review and sign off UST permit
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-08-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-25-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST permit review for piping sump repairs and approvals.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Date: 05-09-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-13-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-03-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-10-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-09-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Notes:	Monitor cert review records
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-13-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-18-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	SB989 report
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-24-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-09-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Diesel STP sump is monitored with 209 in addition to 463. Recommend providing symbol for vent sump and showing both 463 and 208 or 209 monitoring. Map could be improved by increasing scale to allow piping to be shown.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-09-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	docs filed and annual monitor cert report reviewed
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-13-2013
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-24-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-10-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-10-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-07-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Date: 03-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST forms review
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Notes: SB989 report
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Coordinates:
Site ID: 11647
Facility Name: BELLE HAVEN CHEVRON
Env Int Type Code: HWG
Program ID: 10067494
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.479259
Longitude: -122.151802

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: UST Tank Operator
Entity Name: CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title: Not reported

BELLE HAVEN CHEVRON (Continued) **S121739921**

Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	Document Preparer
Entity Name:	TED LAMPH
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC)
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 329-9214
Affiliation Type Desc:	Parent Corporation
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

BELLE HAVEN CHEVRON (Continued) **S121739921**

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	CHARLES BITTLE - 6/7/2016
Entity Title:	RETAIL HES
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	UST Property Owner Name
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	Environmental Contact
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Ted Lamph
Entity Title:	Retail OE/HES Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	UST Tank Owner
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States

BELLE HAVEN CHEVRON (Continued) **S121739921**

Affiliation Zip: 94583
Affiliation Phone: (925) 842-9002

CERS TANKS:
Facility Name: BELLE HAVEN CHEVRON
Site ID: 11647
CERS ID: 10067494
CERS Description: Underground Storage Tank

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 02-19-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Start reviewing UST installation plans
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-23-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Final review and sign off UST permit
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-08-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-25-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST permit review for piping sump repairs and approvals.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Date:	05-12-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-13-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-10-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-09-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Monitor cert review records
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-13-2013
Violations Found:	No
Eval Type:	Routine done by local agency

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 report
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-09-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Diesel STP sump is monitored with 209 in addition to 463. Recommend providing symbol for vent sump and showing both 463 and 208 or 209 monitoring. Map could be improved by increasing scale to allow piping to be shown.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-03-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-09-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: docs filed and annual monitor cert report reviewed
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-07-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-20-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-20-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-24-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	UST forms review
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 report
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Coordinates:
Site ID: 11647
Facility Name: BELLE HAVEN CHEVRON
Env Int Type Code: HWG
Program ID: 10067494
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.479259
Longitude: -122.151802

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: UST Tank Operator
Entity Name: CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title: Not reported
Affiliation Address: P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City: SAN RAMON
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94583
Affiliation Phone: (925) 842-9002

Affiliation Type Desc: Document Preparer
Entity Name: TED LAMPH

BELLE HAVEN CHEVRON (Continued) **S121739921**

Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC)
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 329-9214
Affiliation Type Desc:	Parent Corporation
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	UST Permit Applicant
Entity Name:	CHARLES BITTLE - 6/7/2016
Entity Title:	RETAIL HES
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 842-9002

BELLE HAVEN CHEVRON (Continued) **S121739921**

Affiliation Type Desc:	UST Property Owner Name
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	Environmental Contact
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Ted Lamph
Entity Title:	Retail OE/HES Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	UST Tank Owner
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

CERS TANKS:

Site ID:	11647
CERS ID:	10067494
Site Name:	BELLE HAVEN CHEVRON
CERS Description:	Chemical Storage Facilities

BELLE HAVEN CHEVRON (Continued) **S121739921**

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	02-19-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Start reviewing UST installation plans
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	02-23-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Final review and sign off UST permit
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-08-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-25-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	UST permit review for piping sump repairs and approvals.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	05-09-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-12-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	05-13-2014

BELLE HAVEN CHEVRON (Continued) **S121739921**

Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-03-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-10-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-09-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Monitor cert review records
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 report

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-24-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-09-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Diesel STP sump is monitored with 209 in addition to 463. Recommend providing symbol for vent sump and showing both 463 and 208 or 209 monitoring. Map could be improved by increasing scale to allow piping to be shown.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-31-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-09-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	docs filed and annual monitor cert report reviewed

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-07-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-12-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST forms review
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-10-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2017
Violations Found: No

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-20-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-31-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-13-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 report
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-18-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

BELLE HAVEN CHEVRON (Continued) **S121739921**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-24-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Coordinates:
Site ID: 11647
Facility Name: BELLE HAVEN CHEVRON
Env Int Type Code: HWG
Program ID: 10067494
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.479259
Longitude: -122.151802

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: UST Tank Operator
Entity Name: CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title: Not reported
Affiliation Address: P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City: SAN RAMON
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94583
Affiliation Phone: (925) 842-9002

Affiliation Type Desc: Document Preparer
Entity Name: TED LAMPH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported

BELLE HAVEN CHEVRON (Continued) **S121739921**

Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC)
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 329-9214
Affiliation Type Desc:	Parent Corporation
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	UST Permit Applicant
Entity Name:	CHARLES BITTLE - 6/7/2016
Entity Title:	RETAIL HES
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

BELLE HAVEN CHEVRON (Continued) **S121739921**

Affiliation Type Desc:	Environmental Contact
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Ted Lamph
Entity Title:	Retail OE/HES Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A. INC)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	UST Tank Owner
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

D14 **BELLE HAVEN CHEVRON** **CA San Mateo Co. BI** **S105849878**
NNE **1399 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.024 mi.
125 ft. **Site 5 of 21 in cluster D**

Relative: San Mateo Co. BI:
Lower

Region:	SAN MATEO
Facility ID:	FA0025160
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0042787
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Active, billable

Actual:
8 ft.

Region:	SAN MATEO
Facility ID:	FA0025160
Prog Element Code:	STORES MV FUELS OR WASTE ONLY

BELLE HAVEN CHEVRON (Continued) **S105849878**

Record Id:	PR0042788
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable
Region:	SAN MATEO
Facility ID:	FA0025160
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042789
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0025160
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0034391
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Active, billable

D15 **CHEVRON STATION INC** **CA San Mateo Co. BI** **S123181369**
NNE **1399 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.024 mi.
125 ft. **Site 6 of 21 in cluster D**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0026557
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042023
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

A16 **WILLOW OFFICE PARK** **CA ENVIROSTOR** **S121475158**
SE **1350-1390 WILLOW RD., 925-1098 HAMILTON AVE. & 1005-1275 HAM** **CA VCP** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.025 mi.
130 ft. **Site 7 of 9 in cluster A**

Relative: **Higher**
Actual: **10 ft.**

ENVIROSTOR:

Facility ID:	60002595
Status:	Active
Status Date:	01/04/2018
Site Code:	202169
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	56
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Karen Steen
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Assembly:	, 24
Senate:	, 13
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO

WILLOW OFFICE PARK (Continued) **S121475158**

Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.47841
Longitude: -122.1488
APN: NONE SPECIFIED
Past Use: AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS
Potential COC: Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,2-Dichloroethylene (cis
Confirmed COC: Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,2-Dichloroethylene (cis
Potential Description: OTH, SV
Alias Name: 202169
Alias Type: Project Code (Site Code)
Alias Name: 60002595
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/09/2018
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Facility ID: 60002595
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 56
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Karen Steen
Supervisor: Julie Pettijohn
Division Branch: Cleanup Berkeley
Site Code: 202169
Assembly: , 24
Senate: , 13
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 01/04/2018
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.47841 / -122.1488
APN: NONE SPECIFIED
Past Use: AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS

WILLOW OFFICE PARK (Continued) **S121475158**

Potential COC: 30022, 30027, 30028, 30195
Confirmed COC: 30022,30027,30028,30195
Potential Description: OTH, SV
Alias Name: 202169
Alias Type: Project Code (Site Code)
Alias Name: 60002595
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/09/2018
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

A17 **MENLO CARE INC** **RCRA-SQG** **1000455698**
SE **1350 WILLOW RD** **FINDS** **CAD982430670**
< 1/8 **MENLO PARK, CA 94025** **ECHO**
0.025 mi.
130 ft. **Site 8 of 9 in cluster A**

Relative:
Higher

Actual:
10 ft.

RCRA-SQG:
Date form received by agency: 08/28/1990
Facility name: MENLO CARE INC
Facility address: 1350 WILLOW RD
MENLO PARK, CA 94025
EPA ID: CAD982430670
Contact: ENVIRONMENTAL MANAGER
Contact address: 1350 WILLOW RD
MENLO PARK, CA 94025
Contact country: US
Contact telephone: 415-325-2500
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: LINCOLN PROPERTIES
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported

MENLO CARE INC (Continued) **1000455698**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110001153689

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000455698

MENLO CARE INC (Continued) **1000455698**

Registry ID: 110001153689
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110001153689

A18 **MENLO CARE INC** **CA San Mateo Co. BI** **S103628997**
SE **1350 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.025 mi.
130 ft. **Site 9 of 9 in cluster A**

Relative: **Higher**
Actual: **10 ft.**

San Mateo Co. BI:

Region: SAN MATEO
Facility ID: FA0011207
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0011502
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0011207
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0004159
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022600
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0024987
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022600
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0024988
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

D19 **PRIVATE SOCIAL CLUB** **CA San Mateo Co. BI** **S103957095**
NNE **871 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.046 mi.
243 ft. **Site 7 of 21 in cluster D**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region: SAN MATEO
Facility ID: FA0024917
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0031467
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

D20
NNE
< 1/8
0.047 mi.
246 ft.

DASHI JAPANESE RESTAURANT
873 HAMILTON
MENLO PARK, CA 94025

Site 8 of 21 in cluster D

CA San Mateo Co. BI

S123181020
N/A

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0025638
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042014
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

21
ENE
< 1/8
0.048 mi.
253 ft.

VIDA MED
1380 WILLOW
MENLO PARK, CA 94025

CA San Mateo Co. BI

S106981708
N/A

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0057593
Prog Element Code:	STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id:	PR0079911
Description:	STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0057593
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0079912
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0057593
Prog Element Code:	GEN <1 TONS HAZ WASTE/YR
Record Id:	PR0080311
Description:	GEN <1 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0057593
Prog Element Code:	3091
Record Id:	PR0079913
Description:	STORMWATER ANNUAL INSPECTION FEE
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0023077
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0026233
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0023077
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0026234

VIDA MED (Continued) **S106981708**

Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

D22
NE
< 1/8
0.049 mi.
261 ft.

Relative:
Lower

Actual:
8 ft.

FEDERAL EXPRESS
1392 WILLOW RD
MENLO PARK, CA 94025

Site 9 of 21 in cluster D

RCRA-SQG **1000214109**
CA LUST **CAD982348468**
FINDS
ECHO
CA San Mateo Co. BI
CA HAZNET
CA CIWQS

RCRA-SQG:
Date form received by agency: 08/02/1989
Facility name: FEDERAL EXPRESS
Facility address: 1392 WILLOW RD
MENLO PARK, CA 94025
EPA ID: CAD982348468
Mailing address: 950 TOWERLANE SUITE 1000
FOSTER CITY, CA 94404
Contact: ENVIRONMENTAL MANAGER
Contact address: 1392 WILLOW RD
MENLO PARK, CA 94025
Contact country: US
Contact telephone: 415-430-0244
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: FREDRICK SMITH
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator

FEDERAL EXPRESS (Continued) **1000214109**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 449002
Facility Status: 9- Case Closed
Global ID: T0608132255
APN Number: 055440130
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

FINDS:

Registry ID: 110002798456

Environmental Interest/Information System
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Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000214109
Registry ID: 110002798456
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002798456

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0023003
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT

FEDERAL EXPRESS (Continued) **1000214109**

Record Id: PR0025997
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0023003
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0025998
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0026893
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040667
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0026893
Prog Element Code: STORES HAZ MAT <6999 GAL, 55999 LB, 2799FT^3
Record Id: PR0039943
Description: STORES HAZ MAT <6999 GAL, 55999 LB, 2799CF
Facility Status: Inactive, non-billable

HAZNET:
Site Name: FEDERAL EXPRESS
Year: 1997
GEPAID: CAD982348468
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip: MEMPHIS, TN 381168415
Gen County: Not reported
TSD EPA ID: CAD093459485
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Transfer Station
Tons: .1162
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: FEDERAL EXPRESS
Year: 1997
GEPAID: CAD982348468
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip: MEMPHIS, TN 381168415
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Transfer Station

FEDERAL EXPRESS (Continued) **1000214109**

Tons: .0100
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: FEDERAL EXPRESS
Year: 1996
GEPAID: CAD982348468
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip: MEMPHIS, TN 381168415
Gen County: Not reported
TSD EPA ID: CAD093459485
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Transfer Station
Tons: .1162
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: FEDERAL EXPRESS
Year: 1996
GEPAID: CAD982348468
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip: MEMPHIS, TN 381168415
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .2085
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: FEDERAL EXPRESS
Year: 1996
GEPAID: CAD982348468
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip: MEMPHIS, TN 381168415
Gen County: Not reported
TSD EPA ID: CAD009452657
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Recycler
Tons: .0150
Cat Decode: Not reported
Method Decode: Not reported

FEDERAL EXPRESS (Continued) **1000214109**

Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

CIWQS:

Agency:	Fed Ex
Agency Address:	3750 Haven Ave, Menlo Park, CA 94025
Place/Project Type:	Industrial - Air Courier Services
SIC/NAICS:	4513
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 41I005986
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	04/17/1992
Termination Date:	10/06/1998
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.47968
Longitude:	-122.15089

D23 **INCUBE LABS** **CA San Mateo Co. BI** **S123182417**
NE **1390 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.049 mi.
261 ft. **Site 10 of 21 in cluster D**

Relative: San Mateo Co. BI:
Lower

Region:	SAN MATEO
Facility ID:	FA0040755
Prog Element Code:	SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id:	PR0056565
Description:	SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status:	Inactive, non-billable

Actual:
8 ft.

D24 **OPTICAL SHIELD INC** **RCRA-SQG** **1000857084**
NE **1390 WILLOW RD** **FINDS** **CA0000038158**
< 1/8 **MENLO PARK, CA 94025** **ECHO**
0.049 mi.
261 ft. **Site 11 of 21 in cluster D**

Relative: RCRA-SQG:
Lower

Date form received by agency:	10/25/1993
Facility name:	OPTICAL SHIELD INC
Facility address:	1390 WILLOW RD MENLO PARK, CA 94025
EPA ID:	CA0000038158

Actual:
8 ft.

OPTICAL SHIELD INC (Continued) **1000857084**

Mailing address: WILLOW RD
MENLO PARK, CA 94025
Contact: JOHN CLARK
Contact address: 1390 WILLOW RD
MENLO PARK, CA 94025
Contact country: US
Contact telephone: 415-323-8191
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: JAMES L FERGASON
Owner/operator address: 1390 WILLOW RD
MENLO PARK, CA 94025
Owner/operator country: Not reported
Owner/operator telephone: 415-323-8191
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002611512

Environmental Interest/Information System
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OPTICAL SHIELD INC (Continued) **1000857084**

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000857084
Registry ID: 110002611512
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002611512

D25 **INCUBE, INC.** **CA San Mateo Co. BI** **S100927527**
NE **1390 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.049 mi.
261 ft. **Site 12 of 21 in cluster D**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0015320
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040554
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0015320
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0004181
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0015320
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0011518
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

D26 **MI TAQUERIA** **CA San Mateo Co. BI** **S123181024**
NNE **875 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.050 mi.
264 ft. **Site 13 of 21 in cluster D**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0025652
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0042016
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

D27 **MS LIZZIES** **CA San Mateo Co. BI** **S123181174**
NNE **877 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.055 mi.
293 ft. **Site 14 of 21 in cluster D**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0026195
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042021
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

D28 **FIVE STAR PIZZA** **CA San Mateo Co. BI** **S123181950**
NNE **877 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.055 mi.
293 ft. **Site 15 of 21 in cluster D**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0029118
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0050179
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

E29 **GUY'S ROOFING** **CA LUST** **S106131281**
North **831 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.057 mi.
299 ft. **Site 1 of 3 in cluster E**

Relative: **Lower**
Actual: **8 ft.**

LUST:

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608175554
Global Id:	T0608175554
Latitude:	37.480222105015
Longitude:	-122.152583599091
Status:	Completed - Case Closed
Status Date:	01/30/1997
Case Worker:	Not reported
RB Case Number:	41-1164
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	449050
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

LUST:

Global Id:	T0608175554
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND

GUY'S ROOFING (Continued) **S106131281**

Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608175554
Action Type: Other
Date: 04/23/1989
Action: Leak Reported

Global Id: T0608175554
Action Type: Other
Date: 03/16/1989
Action: Leak Discovery

Global Id: T0608175554
Action Type: ENFORCEMENT
Date: 11/16/1989
Action: * Historical Enforcement - #1

LUST:
Global Id: T0608175554
Status: Completed - Case Closed
Status Date: 01/30/1997

Global Id: T0608175554
Status: Open - Case Begin Date
Status Date: 03/16/1989

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 449050
Facility Status: 9- Case Closed
Global ID: T0608175554
APN Number: 055398090
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

C30 **WILLOW CORNERS LLC-UST SITE** **CA LUST** **S104493836**
SSW **1283 WILLOW** **CA San Mateo Co. BI** **N/A**
< 1/8 **MENLO PARK, CA 94025** **CA CERS**
0.060 mi.
317 ft. **Site 2 of 2 in cluster C**

Relative: Higher
Actual: 12 ft.

LUST:
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608192683
Global Id: T0608192683
Latitude: 37.476435
Longitude: -122.152822
Status: Completed - Case Closed
Status Date: 06/14/2000
Case Worker: Not reported
RB Case Number: 41-1246
Local Agency: Not reported

WILLOW CORNERS LLC-UST SITE (Continued) **S104493836**

File Location: Local Agency
Local Case Number: 440061
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608192683
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608192683
Action Type: Other
Date: 10/12/1999
Action: Leak Reported

Global Id: T0608192683
Action Type: ENFORCEMENT
Date: 02/15/2000
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608192683
Status: Completed - Case Closed
Status Date: 06/14/2000

Global Id: T0608192683
Status: Open - Case Begin Date
Status Date: 10/12/1999

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 440061
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO

WILLOW CORNERS LLC-UST SITE (Continued) **S104493836**

Facility ID: 440061
Facility Status: 9- Case Closed
Global ID: T0608192683
APN Number: 062103600
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0037606
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0054355
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable

CERS TANKS:
Site ID: 254841
CERS ID: T0608192683
Site Name: CLARK PROPERTY
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

E31 **UST SITE - FORMER WEST COAST SCREEN CO SITE** **CA LUST** **U001594227**
North **851 HAMILTON** **CA HIST UST** **N/A**
< 1/8 **MENLO PARK, CA 94025** **CA San Mateo Co. BI**
0.062 mi. **CA CERS**
325 ft. **Site 2 of 3 in cluster E**

Relative: **Lower**
Actual: **8 ft.**

LUST:
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000005607
Global Id: T10000005607
Latitude: 37.479942
Longitude: -122.152276
Status: Completed - Case Closed
Status Date: 01/08/2015
Case Worker: Not reported
RB Case Number: Not reported
Local Agency: Not reported
File Location: Not reported
Local Case Number: 440091
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

UST SITE - FORMER WEST COAST SCREEN CO SITE (Continued) **U001594227**

LUST:
Global Id: T10000005607
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T10000005607
Action Type: RESPONSE
Date: 06/06/2014
Action: Removal Action Work Plan - Regulator Responded

Global Id: T10000005607
Action Type: RESPONSE
Date: 04/28/2014
Action: Soil and Water Investigation Report - Regulator Responded

Global Id: T10000005607
Action Type: RESPONSE
Date: 12/17/2014
Action: Soil and Water Investigation Report - Regulator Responded

Global Id: T10000005607
Action Type: Other
Date: 01/29/2014
Action: Leak Reported

Global Id: T10000005607
Action Type: RESPONSE
Date: 02/28/2014
Action: Verbal Communication

Global Id: T10000005607
Action Type: ENFORCEMENT
Date: 01/30/2014
Action: Staff Letter - #20140130

Global Id: T10000005607
Action Type: ENFORCEMENT
Date: 01/08/2015
Action: Closure/No Further Action Letter - #20150108

Global Id: T10000005607
Action Type: ENFORCEMENT
Date: 10/21/2014
Action: Staff Letter - #20141021

Global Id: T10000005607
Action Type: ENFORCEMENT
Date: 03/26/2014
Action: Staff Letter - #20140326

UST SITE - FORMER WEST COAST SCREEN CO SITE (Continued) **U001594227**

Global Id: T10000005607
Action Type: ENFORCEMENT
Date: 02/20/2014
Action: Notice of Responsibility - #20140220

Global Id: T10000005607
Action Type: Other
Date: 01/29/2014
Action: Leak Began

Global Id: T10000005607
Action Type: ENFORCEMENT
Date: 07/17/2014
Action: Staff Letter - #20140717

Global Id: T10000005607
Action Type: Other
Date: 01/29/2014
Action: Leak Discovery

LUST:
Global Id: T10000005607
Status: Completed - Case Closed
Status Date: 01/08/2015

Global Id: T10000005607
Status: Open - Case Begin Date
Status Date: 01/29/2014

Global Id: T10000005607
Status: Open - Eligible for Closure
Status Date: 10/22/2014

Global Id: T10000005607
Status: Open - Site Assessment
Status Date: 01/30/2014

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440091
Facility Status: 9- Case Closed
Global ID: T10000005607
APN Number: 055398110
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

HIST UST:
File Number: 0002C15B
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002C15B.pdf
Region: STATE
Facility ID: 00000068751
Facility Type: Not reported
Other Type: BUSINESS
Contact Name: Not reported
Telephone: 4153251571

UST SITE - FORMER WEST COAST SCREEN CO SITE (Continued) **U001594227**

Owner Name: PAUL ANGELO
Owner Address: 831 HAMILTON AVENUE
Owner City,St,Zip: MENLO PARK, CA 94025
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: 1960
Tank Capacity: 00000500
Tank Used for: WASTE
Type of Fuel: 2
Container Construction Thickness: X
Leak Detection: 10

Click here for Geo Tracker PDF:

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0054796
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0075567
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable

CERS TANKS:
Site ID: 255801
CERS ID: T10000005607
Site Name: FORMER WEST COAST SCREEN
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

D32 **SAJJ** **CA San Mateo Co. BI** **S123183472**
NNE **879 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.066 mi.
346 ft. **Site 16 of 21 in cluster D**

Relative: San Mateo Co. BI:
Lower Region: SAN MATEO
Actual: Facility ID: FA0054040
8 ft. Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0075458
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

D33 **COST-LESS CLEANERS** **EDR Hist Cleaner** **1018630258**
NNE **879 HAMILTON AVE** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.066 mi.
346 ft. **Site 17 of 21 in cluster D**

Relative: EDR Hist Cleaner
Lower

Actual:
8 ft.

Year:	Name:	Type:
2001	COST-LESS CLEANERS	Laundry And Drycleaner Agents
2002	COST-LESS CLEANERS	Laundry And Drycleaner Agents
2003	COST-LESS CLEANERS	Laundry And Drycleaner Agents

F34 **WILLOW RD PUMPING STATION** **CA San Mateo Co. BI** **S103171409**
South **1298 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.070 mi.
367 ft. **Site 1 of 2 in cluster F**

Relative: San Mateo Co. BI:
Higher

Actual:
12 ft.

Region:	SAN MATEO
Facility ID:	FA0013867
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0028442
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0013867
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0005148
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0013867
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041195
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0013867
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0080692
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

E35 **BAYLAND DRILLING INC** **CA San Mateo Co. BI** **S106981672**
NNW **811 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.070 mi.
368 ft. **Site 3 of 3 in cluster E**

Relative: San Mateo Co. BI:
Lower

Actual:
8 ft.

Region:	SAN MATEO
Facility ID:	FA0022819
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3

BAYLAND DRILLING INC (Continued) **S106981672**

Record Id: PR0025590
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

F36 **BELCHER CLEVIE** **EDR Hist Auto** **1020671387**
South **1300 WILLOW RD** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.070 mi.
370 ft. **Site 2 of 2 in cluster F**

Relative: EDR Hist Auto
Higher

Actual: Year: Name: Type:
12 ft. 1971 BELCHER CLEVIE Gasoline Service Stations
1972 BELCHER CLEVIE Gasoline Service Stations

D37 **ALZA CORPORATION** **RCRA-LQG** **1012175763**
NE **1392 WILLOW ROAD (MP4)** **CAL000307981**
< 1/8 **MENLO PARK, CA 94025**
0.070 mi.
372 ft. **Site 18 of 21 in cluster D**

Relative: RCRA-LQG:
Lower Date form received by agency: 02/14/2008
Facility name: ALZA CORPORATION
Actual: Facility address: 1392 WILLOW ROAD (MP4)
8 ft. MENLO PARK, CA 94025
EPA ID: CAL000307981
Mailing address: 1010 JOAQUIN ROAD,
P.O. BOX 7210
MOUNTAIN VIEW, CA 94043
Contact: ESTHER T PHAM
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: 650-564-2129
Contact email: EPHAM2@ALZUS.JNJ.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: ALZA CORPORATION
Owner/operator address: Not reported
Not reported

ALZA CORPORATION (Continued) **1012175763**

Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/01/1999
Owner/Op end date: Not reported

Owner/operator name: ALZA CORPORATION
Owner/operator address: P.O. BOX 7210
MOUNTAIN VIEW, CA 94043
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 03/01/1999
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D002
. Waste name: CORROSIVE WASTE

ALZA CORPORATION (Continued) **1012175763**

Violation Status: No violations found

D38 **ENERGY TRANSFORMATION SYSTEMS** **CA CPS-SLIC** **S101842031**
NE **1394 WILLOW** **CA San Mateo Co. BI** **N/A**
< 1/8 **MENLO PARK, CA 94025** **CA HIST CORTESE**
0.071 mi. **CA CERS**
376 ft. **Site 19 of 21 in cluster D**

Relative:
Lower

Actual:
8 ft.

CPS-SLIC:

Site Name:	NORTHWOOD
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	11/17/1994
Global Id:	T0608132255
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449002
Latitude:	37.478891
Longitude:	-122.151656
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0022788
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0025479
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022788
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0025480
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

HIST CORTESE:

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-0942

CERS TANKS:

Site ID:	202227
CERS ID:	T0608132255
Site Name:	NORTHWOOD
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker

ENERGY TRANSFORMATION SYSTEMS (Continued) **S101842031**

Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

D39 **JACK IN THE BOX #3477** **CA San Mateo Co. BI** **S118584897**
NNE **1401 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.072 mi.
378 ft. **Site 20 of 21 in cluster D**

Relative: San Mateo Co. BI:
Lower

Region:	SAN MATEO
Facility ID:	FA0024940
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042007
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Actual:
8 ft.

Region:	SAN MATEO
Facility ID:	FA0024940
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0082510
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable

D40 **STARBUCKS COFFEE CO** **CA San Mateo Co. BI** **S123181018**
NNE **1401 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.072 mi.
378 ft. **Site 21 of 21 in cluster D**

Relative: San Mateo Co. BI:
Lower

Region:	SAN MATEO
Facility ID:	FA0025614
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042013
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Actual:
8 ft.

G41 **WILLOW WINE STORAGE, LLC** **CA San Mateo Co. BI** **S106982168**
SSE **1320 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.073 mi.
383 ft. **Site 1 of 2 in cluster G**

Relative: **Higher**
Actual: **12 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0048917
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0066770
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0048917
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0066769
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0026961
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0040061
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable

H42 **GOLDEN FALAFEL** **CA San Mateo Co. BI** **S123181015**
NE **883 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.082 mi.
432 ft. **Site 1 of 10 in cluster H**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0025570
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042012
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

H43 **SAJJ** **CA San Mateo Co. BI** **S123183218**
NE **883 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.082 mi.
432 ft. **Site 2 of 10 in cluster H**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0051911
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0072725
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

H44
NE
< 1/8
0.083 mi.
436 ft.

TOGOS/BASKIN ROBBINS
885 HAMILTON
MENLO PARK, CA 94025

Site 3 of 10 in cluster H

CA San Mateo Co. BI

S123181126
N/A

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0026084
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0042019
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

H45
NE
< 1/8
0.083 mi.
436 ft.

TOGOS MENLO PARK
885 HAMILTON
MENLO PARK, CA 94025

Site 4 of 10 in cluster H

CA San Mateo Co. BI

S123182425
N/A

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0040807
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0056644
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

46
East
< 1/8
0.095 mi.
502 ft.

ADVANCED METAL COMPONENTS INC
1374 WILLOW RD
MENLO PARK, CA 94025

RCRA-SQG
FINDS
ECHO
CA San Mateo Co. BI
CA EMI
CA HAZNET

1000598050
CAD983620915

Relative:
Lower

Actual:
9 ft.

RCRA-SQG:

Date form received by agency:	03/09/1992
Facility name:	ADVANCED METAL COMPONENTS INC
Facility address:	1374 WILLOW RD MENLO PARK, CA 94025
EPA ID:	CAD983620915
Contact:	JIM BLACKFORD
Contact address:	1374 WILLOW RD MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	415-617-8935
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	E G L HOLDINGS
Owner/operator address:	3030 RED HILL AVE

ADVANCED METAL COMPONENTS INC (Continued) **1000598050**

SANTA ANA, CA 92705
Owner/operator country: Not reported
Owner/operator telephone: 714-250-2144
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002413004

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000598050
Registry ID: 110002413004
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002413004

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0022129
Prog Element Code: GEN 6-25 TONS HAZ WASTE/YR
Record Id: PR0023188

ADVANCED METAL COMPONENTS INC (Continued) **1000598050**

Description: GEN 6-25 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022129
Prog Element Code: STORES HAZ MAT <6999 GAL, 55999 LB, 2799FT^3
Record Id: PR0023189
Description: STORES HAZ MAT <6999 GAL, 55999 LB, 2799CF
Facility Status: Inactive, non-billable

EMI:

Year:	1993
County Code:	41
Air Basin:	SF
Facility ID:	7527
Air District Name:	BA
SIC Code:	3479
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1996
County Code:	41
Air Basin:	SF
Facility ID:	7527
Air District Name:	BA
SIC Code:	3479
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1997
County Code:	41
Air Basin:	SF
Facility ID:	7527
Air District Name:	BA
SIC Code:	3479
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0

ADVANCED METAL COMPONENTS INC (Continued) **1000598050**

NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

HAZNET:

Site Name: ADVANCED METAL COMPONENTS INC
Year: 1999
GEPAID: CAD983620915
Contact: ADVANCED METAL COMPONENTS INC
Telephone: 7142502144
Mailing Name: Not reported
Mailing Address: 1374 WILLOW RD
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: CAD059494310
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Tons: .4500
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: ADVANCED METAL COMPONENTS INC
Year: 1999
GEPAID: CAD983620915
Contact: ADVANCED METAL COMPONENTS INC
Telephone: 7142502144
Mailing Name: Not reported
Mailing Address: 1374 WILLOW RD
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: CAD059494310
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: .5000
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: ADVANCED METAL COMPONENTS INC
Year: 1999
GEPAID: CAD983620915
Contact: ADVANCED METAL COMPONENTS INC
Telephone: 7142502144
Mailing Name: Not reported
Mailing Address: 1374 WILLOW RD
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: CAD059494310
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: .3750
Cat Decode: Not reported

ADVANCED METAL COMPONENTS INC (Continued) **1000598050**

Method Decode: Not reported
Facility County: San Mateo

Site Name: ADVANCED METAL COMPONENTS INC
Year: 1999
GEPAID: CAD983620915
Contact: ADVANCED METAL COMPONENTS INC
Telephone: 7142502144
Mailing Name: Not reported
Mailing Address: 1374 WILLOW RD
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: CAD093459485
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank
Tons: .0708
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: ADVANCED METAL COMPONENTS INC
Year: 1999
GEPAID: CAD983620915
Contact: ADVANCED METAL COMPONENTS INC
Telephone: 7142502144
Mailing Name: Not reported
Mailing Address: 1374 WILLOW RD
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 7.0473
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
32 additional CA_HAZNET: record(s) in the EDR Site Report.

H47 **CARDIOKINETIX INC** **CA San Mateo Co. BI** **S106982293**
NE **925 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.100 mi.
528 ft. **Site 5 of 10 in cluster H**

Relative: San Mateo Co. BI:
Lower
Actual:
8 ft.

Region: SAN MATEO
Facility ID: FA0029135
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0049353
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0029135

CARDIOKINETIX INC (Continued) **S106982293**

Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049354
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0046189
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0061993
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0046189
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0061994
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0046189
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0061995
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

I48 **FACEBOOK MPK58 MICRO-KITCHENS** **CA San Mateo Co. BI** **S123184235**
ESE **1360 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.101 mi.
531 ft. **Site 1 of 5 in cluster I**

Relative: **Higher**
Actual: **11 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0061818
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0084556
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

I49 **PRODUCT HEALTH** **CA San Mateo Co. BI** **1000164601**
ESE **1360 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.101 mi.
531 ft. **Site 2 of 5 in cluster I**

Relative: **Higher**
Actual: **11 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0037247
Prog Element Code: GEN 1-5 TONS HAZ WASTE/YR
Record Id: PR0054099
Description: GEN 1-5 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0037247

PRODUCT HEALTH (Continued) **1000164601**

Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0054100
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0037247
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0054098
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025673
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0034654
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025673
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0035987
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0005480
Prog Element Code: GEN 1-5 TONS HAZ WASTE/YR
Record Id: PR0011483
Description: GEN 1-5 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0005480
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040526
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0005480
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0004157
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

I50 **FORTEBIO INC** **CA San Mateo Co. BI** **S123182269**
ESE **1360 WILLOW** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.101 mi.
531 ft. **Site 3 of 5 in cluster I**

Relative: San Mateo Co. BI:
Higher
Region: SAN MATEO
Actual: Facility ID: FA0036754
11 ft. Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0053730

FORTEBIO INC (Continued) **S123182269**

Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Inactive, non-billable

J51 **FORMER HOLLYBURNE AVENUE** **CA LUST** **S114532205**
NNW **735 HAMILTON AVENUE** **CA CPS-SLIC** **N/A**
< 1/8 **MENLO PARK, CA 94025** **CA CERS**
0.105 mi.
555 ft. **Site 1 of 4 in cluster J**

Relative:
Lower

Actual:
9 ft.

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 449089
Facility Status: 9- Case Closed
Global ID: T10000005311
APN Number: 055396060
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

CPS-SLIC:
Site Name: FORMER HOLLYBURNE AVENUE
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 08/26/2016
Global Id: T10000005311
Lead Agency: SAN MATEO COUNTY LOP
Lead Agency Case Number: 449089
Latitude: 37.4797688875223
Longitude: -122.155533071442
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Not reported
Potential Media Affected: Soil
Potential Contaminants of Concern: Arsenic, Copper
Site History: Information taken from Green Environment's 11/19/2013 Phase II Environemntal Site Assessment Report, 711 to 851 Hamilton Avenue, Menlo Park. San mateo County does not take responsiblity for the accuracy of the information taken from the report. The 735 763 Hamilton Site is identified by a block of contiguous parcels comprised of APNs 055-396-030, 055-396-060, 055-397-010, 055-396-020 and 055-397-030. The site of approximately 1.71 acres is improved with commercial warehouse-type buildings, one at 755 Hamilton Avenue and the other at 763 Hamilton Avenue, and paved and unpaved storage yards. Historical records reviewed by GEI indicate the 735 763 Hamilton Site was first developed with the building at 755 Hamilton Avenue in the early 1950s, with the building at 763 Hamilton Avenue added by 1965. Since the 1950s, the site has been primarily occupied by construction equipment sales and rental companies. Gasoline and diesel fuel were once stored in three (3) underground storage tanks (USTs) and dispensed onsite for fueling vehicles and equipment in the area of the 755 Hamilton Building. The fuel USTs were formerly located in the Hamilton Avenue frontage area and connected to fuel dispensers located approximately 30 feet north of the USTs. In the 1980s, the USTs were discovered to be leaking and the lead regulatory agency, the San Mateo County Environmental Health Agency (SMCoEH) opened a Leaking Underground Storage Tank (LUST) case referenced as

FORMER HOLLYBURNE AVENUE (Continued) **S114532205**

LUST Case #440007, Allen Equipment Company. The USTs and some contaminated soil were removed in the 1980s with SMCoEH oversight. Based on soil and groundwater sampling and analyses performed during and after the USTs and soil removal, SMCoEH issued case closure in 1996. The closure letter for the two (2) fuel USTs formerly located in the Hamilton frontage area, stated that an estimated five (5) cubic yards of fuel-affected soil remained in-situ, specified that development or excavation required agency notification, and promulgated that appropriate corrective actions would be reviewed by the regulatory agency if land use were to change in the future. Public records reviewed by GEI and the types of historical operations suggest that motor oil, waste oil, antifreeze, fuels, degreasing solvents, and waste products were used or generated onsite in the past. In GEIs site inspection in November 2012, GEI observed an outdoor washrack area equipped with a sump and used for equipment and vehicle washing, located to the north of the 755 Hamilton Building. A total of nine (9) borings (B-4 to B-12) were completed in December 2012 at the 735 763 Hamilton Site. The results of soil and groundwater sample analyses are summarized in Table 2 to Table 8. Soil Samples Borings B-6 to B-10 were completed in the vicinity of former USTs, outdoor equipment storage areas, and an outdoor washrack associated with the 755 Hamilton Building. Petroleum hydrocarbons in excess of residential ESLs were detected in soil samples from one (1) to five (5) feet depth at Borings B-7, B-9 and B-10. For Boring B-7 in the former equipment storage yard, the TPH analytical results indicated 2.8 mg/Kg TPHg, 2,200 mg/Kg TPHd, and 1,300 mg/Kg TPHmo in Sample B7-1/1.5. VOCs detected above laboratory reporting limits (3.7 to 44 "g/Kg) included 80 "g/Kg acetone, 110 "g/Kg naphthalene, 95 "g/Kg butylbenzene, 56 "g/Kg propylbenzene, and 16 "g/Kg 1,2,4-trimethylbenzene. The vertical extent of petroleum hydrocarbons and VOCs impact at Boring B-7 appears to be limited inasmuch as a deeper soil sample from 3.5 to 4.0 feet depth had no petroleum hydrocarbons and naphthalene above laboratory reporting limits of 1.3 to 64 mg/Kg for TPH and 9.5 "g/Kg for naphthalene (Table 2 and Table 3). For Boring B-10 in the equipment washrack area, the TPH analytical results indicated 90 mg/Kg TPHg, 2,100 mg/Kg TPHd, and 2,600 mg/Kg TPHmo in Sample B10-3/3.5 from 3.0 to 3.5 feet depth, and 14 mg/Kg TPHg, 790 mg/Kg TPHd, and 1,000 mg/Kg TPHmo in Sample B10-4.5/5 from 4.5 to 5.0 feet depth. VOCs were only detected in Sample B10-4.5/5 and included 86 "g/Kg acetone, 20 "g/Kg naphthalene, 94 "g/Kg butylbenzene, and 30 "g/Kg propylbenzene (Table 2 and Table 3). For Boring B-9 in the area of former fuel dispensers and piping, the TPH analytical results indicated 1,700 mg/Kg TPHd and 270 "g/Kg naphthalene in Sample B9-5.25/5.75 from 5.25 to 5.75 feet depth, and 120 mg/Kg TPHd in Sample B9-3/3.5 from 3.0 to 3.5 feet depth (Table 2 and Table 3). The deeper of the two (2) soil samples is suspected to represent the smear zone about the top of the saturated zone, reflecting the occurrence of petroleum hydrocarbons in solution in groundwater around Boring B-9. Borings B-4, B-5, B-11 and B-12 were completed in other historical operational areas of the 755 763 Hamilton Site. The TPH analytical results of soil samples from these borings meet ESLs for residential land use. Maximum TPH results were 100 mg/Kg TPHd and 300 mg/Kg TPHmo in Sample B12-1.5/2 from 1.5 to 2.0 feet depth at Boring B-12 along the sites north perimeter with the DRC drainage swale. VOCs and SVOCs were not detected in Sample B12-1.5/2 above laboratory reporting limits of 3.7 to 37 "g/Kg for VOCs, and 0.40 to 4.9 "g/Kg for SVOCs. Similarly, Boring B-5 was

FORMER HOLLYBURNE AVENUE (Continued) **S114532205**

completed near the DRC drainage swale at sites north perimeter. Except for traces of di-n-butyl phthalate (0.50 "g/Kg), SVOCs and VOCs were not detected above laboratory reporting limits (0.16 to 1.5 "g/Kg for SVOCs and 5.2 to 52 "g/Kg for VOCs) in Sample B5-1/1.5 from 1.0 to 1.5 feet depth at Boring B-5. OCPs were not detected above laboratory reporting limits (2.3 to 240 "g/Kg) in the soil samples from Borings B-5 and B-12 (Table 2, Table 3 and Table 4). Except for traces in Sample B12-1.5/2 (83 "g/Kg), PCBs were not detected in soil samples collected from the 755 763 Hamilton Site. Laboratory reporting limits for PCBs ranged between 59 and 65 "g/Kg (Table 2). Metals analytical results identified the occurrence of the following metals in fill and soil sampled from the 755 763 Hamilton Site (Table 5): arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc. Except for copper, the metal results meet available CHHSLs and ESLs for residential land use, and are in the range of background screening levels. Although arsenic results (27 mg/Kg maximum) in excess of residential CHHSLs and ESLs are noted in the sample set, arsenic is naturally occurring in soils throughout California. The arsenic results for the 755 763 Hamilton Site are comparable to background levels reported elsewhere in California. Background screening levels for arsenic and other metals in soil are available in Scott (1995), Bradford et al (March 1996), LBNL (April 2008), and SLAC (August 23, 2003). Although the copper analytical result of Sample B5/1/1.5 (890 mg/Kg) meets CHHSLs and ESLs for potential residential human exposure risk, the sample result exceeds the urban ecotoxicity-based ESL of 230 mg/Kg in RWQCB (May 2013). Furthermore, the sample result exceeds background screening levels for copper published in Scott (1995), Bradford et al (March 1996), LBNL (April 2008), and SLAC (August 23, 2003). Sample B5-1/1.5 represents fill intermixed with clay collected in the former equipment storage yard near the DRC drainage swale along the north perimeter of the subject property. The anomalous copper result suggests a localized release of copper, or the occurrence of copper-bearing constituents in the near-surface fill in the area of Boring B-5. Asbestos was not detected above the laboratory reporting limit of 0.25% in Sample B5-1/1.5 from Boring B-5 and in Sample B12-1.5/2 from Boring B-12; both samples representing fill intermixed with clayey soil (Table 6). Groundwater Samples Except for groundwater sampled from Borings B-9 and B-10, the groundwater analytical results for the 755 763 Hamilton Site indicated no detectable levels of petroleumhydrocarbons and VOCs above laboratory reporting limits of 50 to 120 "g/L for TPH, and 0.50 to 50 "g/L for VOCs (Table 7). For Boring B-10 in the equipment washrack area, the analytical results indicated 590 "g/L TPHg, 1,200 "g/L TPHd, and 1,900 "g/L TPHmo along with traces of chloroform (5.5 "g/L) and tetrachloroethene (PCE, 0.69 "g/L). For Boring B-9 in the former fuel dispenser area, the laboratory reported 330 "g/L TPHg and 1,200 "g/L TPHd with traces of naphthalene (5.0 "g/L). These groundwater results complement the soil sampling data and indicate a historical release of petroleum hydrocarbons, dominated by diesel to oil range products, in the area of the 755 Hamilton Building. Although the TPH results of the groundwater samples from Borings B-9 and B-10 exceed ESLs for drinking water resource protection, the sample results for VOCs meet MCLs and ESLs for drinking water resource protection (Table 7). Other chemical characterization of groundwater sampled from the 755 763 Hamilton Site include PCBs results for Borings B-4 to B-7, B-10 and B-11, and SVOCs and OCPs results for Borings B-5 and B-12. The

FORMER HOLLYBURNE AVENUE (Continued) **S114532205**

groundwater analytical results indicated no detectable levels of these COCs above laboratory reporting limits of 0.54 to 0.77 "g/L for PCBs, 2.1 to 11 "g/L for SVOCs, and 0.066 to 1.1 "g/L for OCPs (Table 7). Metals analytical results identified the occurrence of the following metals in solution in one or more of the groundwater samples collected from the 755 763 Hamilton Site (Table 8): barium, chromium, lead, molybdenum, and zinc. Except for the lead result for Boring B-8, the metal results meet the corresponding MCLs and ESLs for drinking water resource protection. The lead result for Sample B8-GW (36 "g/L) exceeds the drinking water toxicity-based MCL and ESL of 15 "g/L.

Click here to access the California GeoTracker records for this facility:

CERS TANKS:

Site ID:	218373
CERS ID:	T10000005311
Site Name:	FORMER HOLLYBURNE AVENUE
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

G52 **ALS ROOFING SUPPLY** **CA San Mateo Co. BI** **S102445207**
SSE **985 OBRIEN** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.105 mi.
556 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
12 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0024256
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040636
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0024256
Prog Element Code:	HAZARDOUS WASTE PROGRAM - GENERAL
Record Id:	PR0066474
Description:	HAZARDOUS WASTE PROGRAM - GENERAL
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0024256
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0028804
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF

ALS ROOFING SUPPLY (Continued) **S102445207**

Facility Status: Inactive, non-billable

H53 **FACEBOOK** **RCRA NonGen / NLR** **1024857578**
NE **925 HAMILTON AVE** **CAL000423096**
< 1/8 **MENLO PARK, CA 94025**
0.107 mi.
564 ft. **Site 6 of 10 in cluster H**

Relative: **Lower**

Actual: **8 ft.**

RCRA NonGen / NLR:

Date form received by agency:	12/21/2016
Facility name:	FACEBOOK
Facility address:	925 HAMILTON AVE MENLO PARK, CA 94025
EPA ID:	CAL000423096
Mailing address:	1 HACKER WAY MENLO PARK, CA 94025
Contact:	KAREN SIEVERSON
Contact address:	1 HACKER WAY MENLO PARK, CA 94025
Contact country:	Not reported
Contact telephone:	650-460-9327
Contact email:	KASIEVER@FB.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	TOM WIRTH
Owner/operator address:	1 HACKER WAY MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-391-3750
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	KAREN SIEVERSON
Owner/operator address:	1 HACKER WAY MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-460-9327
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No

FACEBOOK (Continued) **1024857578**

Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

H54 **CARDIOKINETIX INC** **RCRA NonGen / NLR** **1024822517**
NE **925 HAMILTON AVE** **CAL000340777**
< 1/8 **MENLO PARK, CA 94025**
0.107 mi.
564 ft. **Site 7 of 10 in cluster H**

Relative: **Lower**

Actual: **8 ft.**

RCRA NonGen / NLR:

Date form received by agency:	02/23/2009
Facility name:	CARDIOKINETIX INC
Facility address:	925 HAMILTON AVE MENLO PARK, CA 94025-1431
EPA ID:	CAL000340777
Mailing address:	1360 OBRIEN DRIVE MENLO PARK, CA 94025-1431
Contact:	ROBERT NICHOLAS
Contact address:	1360 OBRIEN DRIVE MENLO PARK, CA 94025
Contact country:	Not reported
Contact telephone:	650-364-7016
Contact email:	BNICHOLAS@CARDIOKINETIX.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ROBERT NICHOLAS
Owner/operator address:	1360 OBRIEN DRIVE MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-364-7016
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	CARDIOKINETIX INC
Owner/operator address:	1360 OBRIEN DRIVE MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-364-7016

CARDIOKINETIX INC (Continued) **1024822517**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

H55 **ONSITE DENTAL** **RCRA NonGen / NLR** **1024857584**
NE **925 HAMILTON AVE** **CAL000423117**
< 1/8 **MENLO PARK, CA 94025**
0.107 mi.
564 ft. **Site 8 of 10 in cluster H**

Relative:
Lower

Actual:
8 ft.

RCRA NonGen / NLR:
Date form received by agency: 12/22/2016
Facility name: ONSITE DENTAL
Facility address: 925 HAMILTON AVE
MENLO PARK, CA 94025
EPA ID: CAL000423117
Mailing address: 85 ARGONAUT SUITE 220
ALISO VIEJO, CA 92656
Contact: CAMIE WORLEY
Contact address: 85 ARGONAUT SUITE 220
ALISO VIEJO, CA 92656
Contact country: Not reported
Contact telephone: 801-573-3323
Contact email: CWORLEY@ONSITEDENTAL.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ONSITE DENTAL
Owner/operator address: 85 ARGONAUT STE 220
ALISO VIEJO, CA 92656
Owner/operator country: Not reported
Owner/operator telephone: 949-315-3427
Owner/operator email: Not reported

ONSITE DENTAL (Continued) **1024857584**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CAMIE WORLEY
Owner/operator address: 85 ARGONAUT SUITE 220
ALISO VIEJO, CA 92656
Owner/operator country: Not reported
Owner/operator telephone: 801-573-3323
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

H56 **ENDOTEX ANNEX** **CA San Mateo Co. BI** **S106981947**
NE **931 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.109 mi.
576 ft. **Site 9 of 10 in cluster H**

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0024811
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0030745
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0024811
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0030746
Description: GEN <1 TONS HAZ WASTE/YR

ENDOTEX ANNEX (Continued) **S106981947**

Facility Status: Inactive, non-billable

H57 **WAREHOUSE/COLOMBO BAKERY** **CA LUST** **S104234109**
NE **1401 WILLOW** **CA HIST CORTESE** **N/A**
< 1/8 **E PALO ALTO, CA 94303** **CA CERS**
0.111 mi.
584 ft. **Site 10 of 10 in cluster H**

Relative:
Lower

Actual:
8 ft.

LUST:
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100615
Global Id: T0608100615
Latitude: 37.479783
Longitude: -122.149912
Status: Completed - Case Closed
Status Date: 08/16/1994
Case Worker: Not reported
RB Case Number: 41-0644
Local Agency: Not reported
File Location: Local Agency
Local Case Number: 890002
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608100615
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100615
Action Type: Other
Date: 12/26/1986
Action: Leak Reported

Global Id: T0608100615
Action Type: Other
Date: 01/16/1987
Action: Leak Discovery

Global Id: T0608100615
Action Type: ENFORCEMENT
Date: 09/27/1990
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608100615
Status: Completed - Case Closed
Status Date: 08/16/1994

WAREHOUSE/COLOMBO BAKERY (Continued) **S104234109**

Global Id: T0608100615
Status: Open - Case Begin Date
Status Date: 12/26/1986

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 890002
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 890002
Facility Status: 9- Case Closed
Global ID: T0608100615
APN Number: 055441010
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

HIST CORTESE:
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 41-0644

CERS TANKS:
Site ID: 214058
CERS ID: T0608100615
Site Name: WAREHOUSE/COLOMBO BAKERY
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

K58 **IONPATH INC** **CA San Mateo Co. BI** **S122980373**
South **960 OBRIEN** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.117 mi.
620 ft. **Site 1 of 9 in cluster K**

Relative: **Higher**

Actual: **13 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0064675
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0087530
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Active, billable
Region:	SAN MATEO
Facility ID:	FA0064675
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0087531
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Active, billable
Region:	SAN MATEO
Facility ID:	FA0064675
Prog Element Code:	SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id:	PR0087813
Description:	SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status:	Active, billable

K59 **IONPATH INC** **RCRA-SQG** **1024877095**
South **960 O'BRIEN DRIVE** **CAR000286393**
< 1/8 **MENLO PARK, CA 94025**
0.117 mi.
620 ft. **Site 2 of 9 in cluster K**

Relative: **Higher**

Actual: **13 ft.**

RCRA-SQG:

Date form received by agency:	07/31/2018
Facility name:	IONPATH INC
Facility address:	960 O'BRIEN DRIVE MENLO PARK, CA 94025
EPA ID:	CAR000286393
Mailing address:	O'BRIEN DRIVE MENLO PARK, CA 94025
Contact:	JASON PTACEK
Contact address:	O'BRIEN DRIVE MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	833-466-7284
Contact email:	JPTACEK@IONPATH.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	BALCO PROPERTIES LTD LLC
Owner/operator address:	FRANKLIN STREET STE 1115

IONPATH INC (Continued) **1024877095**

	OAKLAND, CA 94612
Owner/operator country:	US
Owner/operator telephone:	510-663-6191
Owner/operator email:	CORISSA.LUTZ@BALCOPROPERTIES.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	IONPATH INC.
Owner/operator address:	O'BRIEN DRIVE
	MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	214
. Waste name:	Unspecified solvent mixture
. Waste code:	331
. Waste name:	Off-specification, aged, or surplus organics
. Waste code:	352
. Waste name:	Other organic solids
. Waste code:	551
. Waste name:	Laboratory waste chemicals
. Waste code:	D002
. Waste name:	CORROSIVE WASTE
. Waste code:	F003

IONPATH INC (Continued) **1024877095**

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

J60 **HAMILTON APARTMENTS** **CA LUST** **S114532206**
NW **777 HAMILTON AVENUE** **CA CPS-SLIC** **N/A**
< 1/8 **MENLO PARK, CA 94025** **CA NPDES**
0.122 mi. **CA CIWQS**
643 ft. **Site 2 of 4 in cluster J** **CA CERS**

Relative:
Lower

Actual:
9 ft.

SAN MATEO CO. LUST:

Region:	SAN MATEO
Facility ID:	449090
Facility Status:	9- Case Closed
Global ID:	T10000005313
APN Number:	055398020
Case Type:	SAN MATEO CO. LUST
EDR Link ID:	SAN MATEO CO. LUST

CPS-SLIC:

Site Name:	FORMER UNDEVELOPED LOT
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	08/26/2016
Global Id:	T10000005313
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449090
Latitude:	37.4797439
Longitude:	-122.154356
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Not reported
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Polychlorinated biphenyls (PCBs)
Site History:	Information from Green Environemnt's 11/19/2013 Phase II Environemntal Site Assessment Report, 711 to 855 Hamilton Avenue, Menlo Park. San Mateo County does not take responsibility for the accuracy of the information from the report. The 771 821 Hamilton Site is identified by the following block of parcels: APNs 055-398-020, 055-398-030, 055-398-040, 055-398-050, 055-398-060, 055-398-070, 055-398-080 and 055-398-250. The total contiguous area is approximately 2.18 acres. The site was undeveloped open ground in disuse since approximately 2002 when the former onsite buildings were demolished and removed by the City of Menlo Park. Historical records reviewed by GEI indicate the 777 821 Hamilton Site was first developed in circa 1948 with a single building in the vicinity of the parcels referenced to 811 821 Hamilton Avenue. Other buildings

HAMILTON APARTMENTS (Continued) **S114532206**

constructed after 1948 include an additional small commercial building at 807 811 Hamilton Avenue, a commercial building and several smaller structures at 791 Hamilton Avenue, and a retail market building at 735 or 785 Hamilton Avenue. The initial building was occupied by a redwood tub manufacturer from circa 1948 until 1954. After 1965, 821 Hamilton Avenue was integrated into the storage yard of 811 Hamilton Avenue. Subsequent occupants at 801, 811 and 821 Hamilton Avenue included electrical contractors, auto repair businesses, and a drilling company. Historical occupants of 791 Hamilton Avenue included a heating and ventilation contractor, an electronic spray painting business, drilling companies, and an equipment transport service provider. Historical occupants at 735 or 785 Hamilton Avenue included food markets. The western-most parcel at 777 Hamilton Avenue was apparently never fully developed. Documented past hazardous materials usage and storage includes gasoline and diesel fuel in USTs, and above-ground storage of transmission fluid, motor oil, and diesel at 811 Hamilton Avenue; and above-ground storage of oil (including waste oil) and diesel at 791 Hamilton Avenue where vehicle maintenance reportedly occurred at the rear of the parcel. GEI also discovered a record of several drums containing unknown liquids present in 1998 at 777 Hamilton Avenue. All hazardous materials storage tanks and containers were reportedly removed under the oversight of SMCoEH. A complaint received by SMCoEH on October 30, 1998 claimed improper discharge to the sewer, and two (2) 55-gallon drums buried at 811 Hamilton Avenue. Past subsurface sampling (latest in March 2000) discovered low concentrations of polychlorinated biphenyls (PCBs) in soil at 777 Hamilton Avenue; benzene, toluene, xylenes and methyl tert butyl ether (MTBE) in soil at 811 Hamilton Avenue; MTBE in groundwater at 811 Hamilton Avenue; and diesel-range hydrocarbons in soil at 791 Hamilton Avenue. Buried construction debris was reportedly encountered in the eastern portion of 811 Hamilton Avenue. In GEIs site inspection in November 2012, the 777 821 Hamilton Site was vacant, unoccupied land in disuse. GEI observed an abandoned, unlabeled 55-gallon drum lying on its side on dirt at the north edge of the western portion of the site. There was no visible evidence of a release from the drum. GEI observed polyvinyl chloride (PVC) conduit piping mounted to the interior side of solid metal fencing on the north edge of the central portion of the site with observed labeling suggesting that the piping may have been once connected to a compressor(s); if true, the piping may at one time have contained compressor oil. GEI did not observe any visible staining on the asphalt pavement beneath the piping, although mulched and landscaping debris covered much of the existing pavement. GEI observed the eastern portion of the site was largely covered with vegetative mulch debris. Borings B-15 through B-32, and A through O were completed at the 777 821 Hamilton Site which is currently vacant ground with no building or structures. The results of soil and groundwater sample analyses are summarized in Table 2 to Table 8. Soil Samples: 777 and 735/785 Hamilton Avenue Area Borings B-16, B-17, and A through F were completed in the area of 777 and 735/785 Hamilton Avenue, the western portion of the block of parcels represented by 777 to 821 Hamilton Avenue. Although the TPH, VOCs, and SVOCs results of soil samples collected from this set of borings meet the CHHSLs and ESLs for residential land use, PCBs results for samples from within 1.5 feet depth at Boring B-16, B and C exceed risk-based screening levels for potential human health exposure. The PCBs results of Sample B16-1 (950 "g/Kg) from 1 to 1.5 feet depth at

HAMILTON APARTMENTS (Continued) **S114532206**

Boring B-16, Sample B-0-6 (440 "g/Kg) from within 0.5 feet depth at Boring B, Sample B-12-18 (120 "g/Kg) from 1.0 to 1.5 feet depth at Boring B, and Sample C-0-6 (97 "g/Kg) from within 0.5 feet depth at Boring C exceed the residential CHHSL of 89 "g/Kg. Samples B16-1 and B-0-6 also exceed the residential ESL of 220 "g/Kg. PCBs appear to be concentrated in the area of 777 Hamilton Avenue and limited to within 1.5 feet depth inasmuch as PCBs were not reported present above detection limits (11 to 34 "g/Kg range) in deeper soil samples collected from 1.5 to 3.75 feet depth at Borings B-16, B, and C. Furthermore, PCBs were not detected above the laboratory reporting limits (10 to 250 "g/Kg) in soil samples from Borings A, D, E and F (Table 2, Table 3, and Table 4). Chemical characterization via EPA 8270C identified traces of the following SVOCs in Sample A-12-18 from 1.0 to 1.5 feet depth at Boring A: benzo(a)pyrene (0.019 "g/Kg), benzo(b)fluoranthene (0.016 "g/Kg), bis (2-ethylhexyl) phthalate (0.020 "g/Kg), fluoranthene (0.023 "g/Kg), phenanthrene (0.014 "g/Kg), and pyrene (0.023 "g/Kg). In addition, traces of bis (2-ethylhexyl) phthalate (0.012 "g/Kg) and pyrene (0.0084 "g/Kg) were reported in Sample E-12-18 from 1.0 to 1.5 feet depth at Boring E, and pyrene (0.008 "g/Kg) in Sample D-12-18 from 1.0 to 1.5 feet depth at Boring D. The SVOCs results of soil samples, however, meet available ESLs for residential land use (Table 4). The laboratory reported no detectable levels of OCPs above laboratory reporting limits of 2.4 to 510 "g/Kg, except for 4,4-DDE (59 "g/Kg), dieldrin (41 "g/Kg), and chlordane (270 "g/Kg technical, 54 "g/Kg alpha, and 71 "g/Kg gamma isomers) in Sample A-12-18; and dieldrin (5.2 "g/Kg) and chlordane (46 "g/Kg technical, 6.2 "g/Kg alpha, and 8.7 "g/Kg gamma isomers) in Sample E-12-18. Except for dieldrin in Sample A-12-18 above the CHHSL of 35 "g/Kg and ESL of 2.3 "g/Kg, and dieldrin in Sample E-12-18 only above the ESL of 2.3 "g/Kg, the OCPs data for soil samples from the area of 777 and 735/785 Hamilton Avenue meet CHHSLs and ESLs for residential land use (Table 2). CAM 17 metals analytical results for Sample B16-1 from 1.0 to 1.5 feet depth at Boring B-16 detected the following metals (Table 5): barium (130 mg/Kg), cadmium (0.98 mg/Kg), chromium (64 mg/Kg), cobalt (13 mg/Kg), copper (66 mg/Kg), lead (27 mg/Kg), mercury (0.067 mg/Kg), nickel (54 mg/Kg), vanadium (58 mg/Kg) and zinc (130 mg/Kg). LUFT 5 metals analytical results detected chromium (64 mg/Kg), lead (10 mg/Kg), nickel (54 mg/Kg), and zinc (81 mg/Kg) in Sample B15-3.5/4 from 3.5 to 4.0 feet depth at Boring B-15; and chromium (66 mg/Kg), lead (44 mg/Kg), nickel (58 mg/Kg), and zinc (210 mg/Kg) in Sample B17-2.25/3.75 from 2.25 to 3.75 feet depth at Boring B-17. Soil samples from 1.0 to 1.5 feet depth at Borings A, C, D and E were only analyzed for arsenic and lead, and the analytical results ranged from 4.3 to 8.7 mg/Kg arsenic and 11 to 35 mg/Kg lead. The metal results meet the corresponding CHHSLs and ESLs for residential land use, and are within the upper range of background screening levels for metals. The arsenic results also appear not to be significant inasmuch as arsenic is naturally occurring in California soils and the arsenic results for the area of 777 and 735/785 Hamilton Avenue are comparable to background levels. Background screening levels for arsenic and other metals in soil are available in Scott (1995), Bradford et al (March 1996), LBNL (April 2008), and SLAC (August 23, 2003). Asbestos was not detected above the laboratory reporting limit of 0.25% in Sample B16-1, representing fill intermixed with clay from 1.0 to 1.5 feet depth at Boring B-16 (Table 6). Groundwater Samples: 777 and 735/785 Hamilton Avenue Area The groundwater analytical

HAMILTON APARTMENTS (Continued) **S114532206**

results for Borings B-15, B-16 and B-17 indicated no detectable levels of organic COCs above laboratory reporting limits of 50 to 120 "g/L for TPH, 0.54 to 0.60 "g/L for PCBs, 0.50 to 50 "g/L for VOCs, 2.2 to 11 "g/L for SVOCs, and 0.063 to 1.0 "g/L for OCPs (Table 7). Except for barium at 110 "g/L, molybdenum at 14 "g/L, and zinc at 29 "g/L, the laboratory reported no detectable levels of CAM 17 metals in groundwater sampled from Boring B-16. Except for zinc at 33 "g/L in the groundwater sample from Boring B-17, the analytical results of LUFT 5 metals for Borings B-15 and B-17 indicated no detectable levels of metals above laboratory reporting limits of 2 to 20 "g/L. With respect to risk-based screening levels, the metals data for groundwater sampled from the area of 777 and 735/785 Hamilton Avenue meet MCLs and ESLs for drinking water resource protection (Table 8).

Click here to access the California GeoTracker records for this facility:

NPDES:

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41C370197
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	03/21/2017
Operator Name:	Bayfront Investments
Operator Address:	1777 Oakland Blvd
Operator City:	Walnut Creek
Operator State:	California
Operator Zip:	94596

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	447229
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C370197
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported

HAMILTON APARTMENTS (Continued) **S114532206**

Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	03/21/2017
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	06/30/2014
Processed Date:	07/09/2014
Status:	Terminated
Status Date:	03/21/2017
Place Size:	6.52
Place Size Unit:	Acres
Contact:	Ken Dean
Contact Title:	Sr. Project Manager
Contact Phone:	510-246-6459
Contact Phone Ext:	Not reported
Contact Email:	ken.dean@wlbutler.com
Operator Name:	Bayfront Investments
Operator Address:	1777 Oakland Blvd
Operator City:	Walnut Creek
Operator State:	California
Operator Zip:	94596
Operator Contact:	Robert Burke
Operator Contact Title:	Principal
Operator Contact Phone:	650-681-9334
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	burke@greenheart.bz
Operator Type:	Private Business
Developer:	Greenheart Land Company
Developer Address:	941 E Charleston Road
Developer City:	Palo Alto
Developer State:	California
Developer Zip:	94303
Developer Contact:	Robert Burke
Developer Contact Title:	Principal
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	Y
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay

HAMILTON APARTMENTS (Continued) **S114532206**

Certifier:	Robert Burke
Certifier Title:	Principal
Certification Date:	30-JUN-14
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	447229
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C370197
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/09/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	03/21/2017
Discharge Name:	Bayfront Investments
Discharge Address:	1777 Oakland Blvd
Discharge City:	Walnut Creek
Discharge State:	California
Discharge Zip:	94596
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported

HAMILTON APARTMENTS (Continued) **S114532206**

Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Facility Status:	Terminated
NPDES Number:	CAS000002
Region:	2
Agency Number:	0
Regulatory Measure ID:	447229
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	2 41C370197
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/09/2014
Termination Date Of Regulatory Measure:	03/21/2017
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	1777 Oakland Blvd
Discharge Name:	Bayfront Investments
Discharge City:	Walnut Creek
Discharge State:	California
Discharge Zip:	94596
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported

HAMILTON APARTMENTS (Continued) **S114532206**

Region:	2
Regulatory Measure ID:	447229
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C370197
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	03/21/2017
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	06/30/2014
Processed Date:	07/09/2014
Status:	Terminated
Status Date:	03/21/2017
Place Size:	6.52
Place Size Unit:	Acres
Contact:	Ken Dean
Contact Title:	Sr. Project Manager
Contact Phone:	510-246-6459
Contact Phone Ext:	Not reported
Contact Email:	ken.dean@wlbutler.com
Operator Name:	Bayfront Investments
Operator Address:	1777 Oakland Blvd
Operator City:	Walnut Creek
Operator State:	California
Operator Zip:	94596
Operator Contact:	Robert Burke
Operator Contact Title:	Principal
Operator Contact Phone:	650-681-9334
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	burke@greenheart.bz
Operator Type:	Private Business
Developer:	Greenheart Land Company
Developer Address:	941 E Charleston Road
Developer City:	Palo Alto
Developer State:	California
Developer Zip:	94303
Developer Contact:	Robert Burke
Developer Contact Title:	Principal
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported

HAMILTON APARTMENTS (Continued) **S114532206**

Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	Y
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	Robert Burke
Certifier Title:	Principal
Certification Date:	30-JUN-14
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	447229
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C370197
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/09/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	03/21/2017
Discharge Name:	Bayfront Investments
Discharge Address:	1777 Oakland Blvd
Discharge City:	Walnut Creek
Discharge State:	California
Discharge Zip:	94596
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported

HAMILTON APARTMENTS (Continued) **S114532206**

Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Agency:	Bayfront Investments
Agency Address:	1777 Oakland Blvd Suite 100, Walnut Creek, CA 94596
Place/Project Type:	Construction - Residential
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 41C370197
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	07/09/2014
Termination Date:	03/21/2017
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0

HAMILTON APARTMENTS (Continued) **S114532206**

Violations within 5 years: 0
Latitude: 37.479853
Longitude: -122.154489

CERS TANKS:
Site ID: 218895
CERS ID: T10000005313
Site Name: FORMER UNDEVELOPED LOT
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

J61 **UST SITE - 777 HAMILTON AVE** **CA San Mateo Co. BI** **S117398840**
NW **777 HAMILTON** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.122 mi.
643 ft. **Site 3 of 4 in cluster J**

Relative:
Lower

Actual:
9 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0056778
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0078778
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable

L62 **MEMBRANE TECHNOLOGY & RESEARCH** **CA San Mateo Co. BI** **S110275463**
NE **943 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.128 mi.
674 ft. **Site 1 of 6 in cluster L**

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0046231
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0062560
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0046231
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0062561
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

MEMBRANE TECHNOLOGY & RESEARCH (Continued) **S110275463**

Region:	SAN MATEO
Facility ID:	FA0046231
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0062559
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

K63 **SANFORD METAL PROCESSING INC** **RCRA-SQG** **1001486823**
SSE **990 O BRIEN DR** **CA ENVIROSTOR** **CAD981425580**
1/8-1/4 **MENLO PARK, CA 94025**
0.131 mi.
691 ft. **Site 3 of 9 in cluster K**

Relative:
Higher

Actual:
13 ft.

RCRA-SQG:

Date form received by agency:	05/12/1999
Facility name:	SANFORD METAL PROCESSING INC
Facility address:	990 O BRIEN DR MENLO PARK, CA 94025
EPA ID:	CAD981425580
Contact:	JOSE SANDOVAL
Contact address:	990 O BRIEN DR MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	650-327-5172
Contact email:	Not reported
EPA Region:	09
Land type:	Private
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	JOSE SANDOVAL
Owner/operator address:	990 O BRIEN DR MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-327-5172
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

SANFORD METAL PROCESSING INC (Continued) **1001486823**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

. Waste code: F007
. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

. Waste code: F008
. Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: F009
. Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

SANFORD METAL PROCESSING INC (Continued) **1001486823**

Historical Generators:
Date form received by agency: 02/21/1996
Site name: SANFORD METAL PROCESSING, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/03/1992
Site name: SANFORD METAL PROCESSING CO.
Classification: Large Quantity Generator

Date form received by agency: 04/30/1990
Site name: SANFORD METAL PROCESSING INC.
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/11/2005
Date achieved compliance: 03/11/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/11/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 02/11/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/11/2005
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/31/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

ENVIROSTOR:
Facility ID: 71002837
Status: Refer: Other Agency
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Berkeley
Assembly: 24

SANFORD METAL PROCESSING INC (Continued) **1001486823**

Senate: 13
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.47493
Longitude: -122.1516
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD981425580
Alias Type: EPA Identification Number
Alias Name: 110021329463
Alias Type: EPA (FRS #)
Alias Name: 71002837
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 08/31/1998
Comments: Inspection report sent on 8/31/1998

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

K64 **SANFORD METAL PROCESSING** **CA HIST UST** **S118415110**
SSE **990 OBRIAN DRIVE** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.131 mi.
691 ft. **Site 4 of 9 in cluster K**

Relative:
Higher

Actual:
13 ft.

HIST UST:
File Number: 0002C259
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002C259.pdf
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported

SANFORD METAL PROCESSING (Continued) **S118415110**

Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

K65 **SANFORD METAL PROCESSING CO** **CA CERS HAZ WASTE** **1000230207**
SSE **990 O'BRIEN DRIVE** **CA HIST UST** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CHMIRS**
0.131 mi. **CA San Mateo Co. BI**
691 ft. **Site 5 of 9 in cluster K** **CA EMI**
Relative: **CA NPDES**
Higher **CA WDS**
CA CIWQS
Actual: **CA CERS**
13 ft.

CERS HAZ WASTE:
Site ID: 401399
CERS ID: 10066081
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 02/26/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: 22 CCR 15 66265.32 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.32
Violation Description: Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes: Returned to compliance on 02/26/2015.

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/06/2017. Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (lliquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Returned to compliance on 04/06/2017. Several rinse water (Z-1) and bath tanks (Z-3) were observed to be bulging and deteriorated. Please replace these tanks and provide confirmation to the inspector within the next 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Leaks in roof of rear chemical stg bins have allowed entry of rain water. In corrosives bin, contaminated runoff from open or improperly closed containers was observed on the floor. Clean bin floors, dispose of waste/cleaned up materials as hazardous waste and repair storage bin roofs to prevent leaks. Provide confirmation (photos and manifests) to inspector within 30 days. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	Returned to compliance on 04/06/2017. 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were open. Please close all containers of hazardous waste unless adding waste; submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes:	Returned to compliance on 06/08/2017. Observations of the hazardous waste storage issues (incorrect accumulation start date on acetone waste drum, unlabeled and open hazardous waste containers, etc.) indicate that weekly inspections are not occurring. Weekly inspections of hazardous waste storage areas are required. Begin these inspection immediately and provide records in the inspector after 30 days have passed.

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (liquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 06/08/2017. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills at the end of every day and clean up these small spills within 48 hours. The system should also schedule regular cleanup of the non-RCRA hazardous waste solids (precipitate near the caustic tanks or "other organic solids"), and non-RCRA regulated solid, known as "floor sweep" or "other inorganic solids." Please develop and train your staff on a written procedure for cleanup of [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Description: Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes: Returned to compliance on 04/12/2017. Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-01-2017
Citation: 40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description: Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes: Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-07-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 06/08/2017.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes: Returned to compliance on 02/26/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 02/26/2015. Eyewash not maintained
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Observed 5-gallon containers of hazardous waste sludge and precipitate intended for the hazardous waste super-sac (tri-wall box). Prior to disposal in super-sac these hazardous waste containers must be properly labeled and closed. Train staff to either label and close these HW containers or dispose immediately in the super-sac. Provide evidence of this training within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: 22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description: Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes: Returned to compliance on 02/26/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Started inspection, to be completed in 2 days
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-09-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Research and letter draft for PBR closure
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2016
Violations Found: No

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-02-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-16-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Water analysis review for TP decision
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-12-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw/eval/dwnload compli photos email
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-20-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-21-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-07-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: says map/plans provided to reg - current?
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-28-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-02-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-07-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval General Type:	Other/Unknown
Eval Date:	03-13-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Once volumes of potential CalARP chemicals are correct, the facility will be evaluated for CalARP requirements.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewing compliance submittals
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: A few items missing from inventory and map - muriatic acid near D-2, Manganese phosphate, HW in large tank (see HW inspection regarding the HW tank).
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-03-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw past vios; fill gaps; consult LM
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-21-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Observed disassembled evaporator and discussed documention
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-19-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: extend deadline
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-04-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw CUPA and St online history
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-24-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HW
Enf Action Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-25-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Coordinates:

Site ID:	401399
Facility Name:	SANFORD METAL PROCESSING CO
Env Int Type Code:	SMSWIND
Program ID:	255539
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	37.474910
Longitude:	-122.151040

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Jose A. Sandoval
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 492-0982

Affiliation Type Desc:	Parent Corporation
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Entity Name:	Luis A. Alcaraz
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Jose A. Sandoval
Entity Title:	Not reported
Affiliation Address:	990 Obrien Drive
Affiliation City:	Menlo park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Owner/Operator
Entity Name:	Jose Sandoval
Entity Title:	Operator
Affiliation Address:	990 Obrien Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	990 O'BRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Luis A. Alcaraz
Entity Title:	Office Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: SANFORD METAL PROCESSING CO
Entity Title: Not reported
Affiliation Address: 990 OBRIEN DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94025
Affiliation Phone: (650) 327-5172

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000047988
Facility Type: Other
Other Type: METAL FINISHING
Contact Name: GLEN HARTLE
Telephone: 4153275172
Owner Name: SANFORD METAL PROCESSING
Owner Address: 990 O'BRIAN DRIVE
Owner City,St,Zip: MENLO PARK, CA 94025
Total Tanks: 0002

Tank Num: 001
Container Num: 01
Year Installed: 1982
Tank Capacity: 00000220
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 5
Leak Detection: Visual

Tank Num: 002
Container Num: 02
Year Installed: 1982
Tank Capacity: 00000020
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 5
Leak Detection: Visual

CHMIRS:
OES Incident Number: 8-1777
OES notification: 04/16/1998
OES Date: Not reported
OES Time: Not reported
Date Completed: **Not reported**
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1998
Agency:	San Mateo Co OES
Incident Date:	4/16/199812:00:00 AM
Admin Agency:	San Mateo County Environmental Health
Amount:	Not reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	Phosphuric acid, ni-hydride, sodium hydroxide solution
Gallons:	50
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Overheated drum burst, allowing substance to spill.

SANFORD METAL PROCESSING CO (Continued) **1000230207**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	STORES HAZ MAT >32000GAL, 240001LB, 112000FT3
Record Id:	PR0004098
Description:	STORES HAZ MAT >32000GAL, 224000LB, 112000CF
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	GEN <1 TONS HAZ WASTE/YR
Record Id:	PR0011447
Description:	GEN <1 TONS HAZ WASTE/YR
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	3091
Record Id:	PR0040579
Description:	STORMWATER ANNUAL INSPECTION FEE
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	PERMIT BY RULE (PBR)
Record Id:	PR0065542
Description:	PERMIT BY RULE (PBR)
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	RISK MANAGEMENT AND PREVENTION PLAN - GENERAL
Record Id:	PR0053921
Description:	CALARP - GENERAL
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	CONDITIONAL AUTHORIZED (CA)
Record Id:	PR0048830
Description:	CONDITIONAL AUTHORIZED (CA)
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	CONDITIONAL AUTHORIZED (CA)
Record Id:	PR0030726
Description:	CONDITIONAL AUTHORIZED (CA)
Facility Status:	Inactive, non-billable

EMI:

Year:	1987
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA

SANFORD METAL PROCESSING CO (Continued) **1000230207**

SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1995
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1997
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA
SIC Code:	3471
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2003
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2004
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.099
Reactive Organic Gases Tons/Yr:	0.0987096
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Year:	2005
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.099
Reactive Organic Gases Tons/Yr:	.0987096
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2006
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.214
Reactive Organic Gases Tons/Yr:	.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2007
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.214
Reactive Organic Gases Tons/Yr:	.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2008
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.214
Reactive Organic Gases Tons/Yr:	.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2009
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.214
Reactive Organic Gases Tons/Yr:	0.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2010
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.32100000000000001
Reactive Organic Gases Tons/Yr:	0.31865260000000001
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2011
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321
Reactive Organic Gases Tons/Yr:	0.3186526
Carbon Monoxide Emissions Tons/Yr:	0

SANFORD METAL PROCESSING CO (Continued) **1000230207**

NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2012
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321
Reactive Organic Gases Tons/Yr:	0.3186526
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2013
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321
Reactive Organic Gases Tons/Yr:	0.3186526
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2014
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321986389
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year: 2015

SANFORD METAL PROCESSING CO (Continued) **1000230207**

County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.350017976
Reactive Organic Gases Tons/Yr:	0.239543653
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2016
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.350017999
Reactive Organic Gases Tons/Yr:	0.2375363504
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

NPDES:

Facility Status:	Active
NPDES Number:	CAS000001
Region:	2
Agency Number:	0
Regulatory Measure ID:	182879
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	2 41I005327
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/10/1992
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	990 Obrien Dr
Discharge Name:	Jose Sandoval
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	182879
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41I005327
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/10/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Jose Sandoval
Discharge Address:	990 Obrien Dr
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	182879
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 41I005327
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/10/1992
Status:	Active
Status Date:	04/10/1992
Place Size:	29900
Place Size Unit:	SqFt
Contact:	Jose Sandoval
Contact Title:	Not reported
Contact Phone:	650-327-5172
Contact Phone Ext:	Not reported
Contact Email:	sanfordmetal@aol.com
Operator Name:	Jose Sandoval
Operator Address:	990 Obrien Dr
Operator City:	Menlo Park
Operator State:	California

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Operator Zip:	94025
Operator Contact:	JOSE Sandoval
Operator Contact Title:	President
Operator Contact Phone:	650-327-5172
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	sanfordmetal@aol.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	650-521-3131
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	Luis Alcaraz
Certifier Title:	Office Manager
Certification Date:	13-FEB-15
Primary Sic:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41I005327
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	04/10/1992
Operator Name:	Jose Sandoval
Operator Address:	990 Obrien Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	182879
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41I005327
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/10/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Jose Sandoval
Discharge Address:	990 Obrien Dr
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	182879
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 41I005327
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	04/10/1992
Status:	Active
Status Date:	04/10/1992
Place Size:	29900
Place Size Unit:	SqFt

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Contact:	Jose Sandoval
Contact Title:	Not reported
Contact Phone:	650-327-5172
Contact Phone Ext:	Not reported
Contact Email:	sanfordmetal@aol.com
Operator Name:	Jose Sandoval
Operator Address:	990 Obrien Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	JOSE Sandoval
Operator Contact Title:	President
Operator Contact Phone:	650-327-5172
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	sanfordmetal@aol.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	650-521-3131
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	Luis Alcaraz
Certifier Title:	Office Manager
Certification Date:	13-FEB-15
Primary Sic:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

WDS:

Facility ID:	San Francisco Bay 41I005327
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel

SANFORD METAL PROCESSING CO (Continued) **1000230207**

	washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	4153275172
Facility Contact:	JOSE SANDOVAL
Agency Name:	SANFORD METAL PROCESSING CO
Agency Address:	990 Obrien Dr
Agency City,St,Zip:	Menlo Park 940251407
Agency Contact:	JOSE SANDOVAL
Agency Telephone:	4153275172
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Agency:	Jose Sandoval
Agency Address:	990 Obrien Dr, Menlo Park, CA 94025
Place/Project Type:	Industrial - Electroplating, Plating, Polishing, Anodizing, and Coloring
SIC/NAICS:	3471
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 41I005327
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	04/10/1992

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.47491
Longitude:	-122.15104

CERS TANKS:

Site ID:	401399
CERS ID:	10066081
Site Name:	SANFORD METAL PROCESSING CO
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.32 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.32
Violation Description:	Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Date:	03-07-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/06/2017. Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (lliquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Returned to compliance on 04/06/2017. Several rinse water (Z-1) and bath tanks (Z-3) were observed to be bulging and deteriorated. Please replace these tanks and provide confirmation to the inspector within the next 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Leaks in roof of rear chemical stg bins have allowed entry of rain

SANFORD METAL PROCESSING CO (Continued) **1000230207**

water. In corrosives bin, contaminated runoff from open or improperly closed containers was observed on the floor. Clean bin floors, dispose of waste/cleaned up materials as hazardous waste and repair storage bin roofs to prevent leaks. Provide confirmation (photos and manifests) to inspector within 30 days. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills [Truncated]

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-07-2017
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 04/06/2017. 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were open. Please close all containers of hazardous waste unless adding waste; submit confirmation to the inspector within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-07-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes: Returned to compliance on 06/08/2017. Observations of the hazardous waste storage issues (incorrect accumulation start date on acetone waste drum, unlabeled and open hazardous waste containers, etc.) indicate that weekly inspections are not occurring. Weekly inspections of hazardous waste storage areas are required. Begin these inspection immediately and provide records in the inspector after 30 days have passed.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Date:	03-01-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (liquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 06/08/2017. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills at the end of every day and clean up these small spills within 48 hours. The system should also schedule regular cleanup of the non-RCRA hazardous waste solids (precipitate near the caustic tanks or "other organic solids"), and non-RCRA regulated solid, known as "floor sweep" or "other inorganic solids." Please develop and train your staff on a written procedure for cleanup of [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Returned to compliance on 04/12/2017. Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm

SANFORD METAL PROCESSING CO (Continued) **1000230207**

	with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 06/08/2017.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 02/26/2015. Eyewash not maintained

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-01-2017
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description: Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes: According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-07-2017
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description: Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes: According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-01-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Observed 5-gallon containers of hazardous waste sludge and precipitate intended for the hazardous waste super-sac (tri-wall box). Prior to disposal in super-sac these hazardous waste containers must be

SANFORD METAL PROCESSING CO (Continued) **1000230207**

properly labeled and closed. Train staff to either label and close these HW containers or dispose immediately in the super-sac. Provide evidence of this training within 30 days.

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: 22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description: Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes: Returned to compliance on 02/26/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Started inspection, to be completed in 2 days
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-09-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Research and letter draft for PBR closure
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-02-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-16-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Water analysis review for TP decision
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-12-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw/eval/dwnload compli photos email
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-20-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-21-2018
Violations Found: No

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-07-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: says map/plans provided to reg - current?
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-28-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-02-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-07-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-13-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Once volumes of potential CalARP chemicals are correct, the facility will be evaluated for CalARP requirements.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewing compliance submittals
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	A few items missing from inventory and map - muriatic acid near D-2, Manganese phosphate, HW in large tank (see HW inspection regarding the HW tank).
Eval Division:	San Mateo County Environmental Health

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-03-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw past vios; fill gaps; consult LM
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-21-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Observed disassembled evaporator and discussed documention
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-19-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: extend deadline
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-04-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw CUPA and St online history
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Site Address: 990 OBRIEN DR
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 02-24-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Site Address: 990 OBRIEN DR
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 02-25-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 401399
Facility Name: SANFORD METAL PROCESSING CO
Env Int Type Code: SMSWIND
Program ID: 255539
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.474910
Longitude: -122.151040

Affiliation:
Affiliation Type Desc: Operator
Entity Name: Jose A. Sandoval
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 492-0982

Affiliation Type Desc: Parent Corporation
Entity Name: SANFORD METAL PROCESSING CO
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: Luis A. Alcaraz
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Jose A. Sandoval
Entity Title: Not reported
Affiliation Address: 990 Obrien Drive
Affiliation City: Menlo park
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Owner/Operator
Entity Name: Jose Sandoval
Entity Title: Operator
Affiliation Address: 990 Obrien Dr
Affiliation City: Menlo Park
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 990 O'BRIEN DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Luis A. Alcaraz
Entity Title: Office Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: SANFORD METAL PROCESSING CO
Entity Title: Not reported
Affiliation Address: 990 OBRIEN DR

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94025
Affiliation Phone: (650) 327-5172

Site ID: 492322
CERS ID: 110000831459
Site Name: SANFORD METAL PROCESSING INC.
CERS Description: US EPA Air Emission Inventory System (EIS)

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Jose Sandoval
Entity Title: Not reported
Affiliation Address: 990 O BRIEN DRIVE
Affiliation City: MENLOPK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Public Contact
Entity Name: ED DUNNE/FRANK UNQUERA
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 401399
CERS ID: 255539
Site Name: SANFORD METAL PROCESSING CO
CERS Description: Industrial Facility Storm Water

Violations:
Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 02/26/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: 22 CCR 15 66265.32 - California Code of Regulations, Title 22, Chapter

SANFORD METAL PROCESSING CO (Continued) **1000230207**

	15, Section(s) 66265.32
Violation Description:	Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/06/2017. Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (lliquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Returned to compliance on 04/06/2017. Several rinse water (Z-1) and bath tanks (Z-3) were observed to be bulging and deteriorated. Please replace these tanks and provide confirmation to the inspector within the next 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Leaks in roof of rear chemical stg bins have allowed entry of rain water. In corrosives bin, contaminated runoff from open or improperly closed containers was observed on the floor. Clean bin floors, dispose of waste/cleaned up materials as hazardous waste and repair storage bin roofs to prevent leaks. Provide confirmation (photos and manifests) to inspector within 30 days. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	Returned to compliance on 04/06/2017. 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were open. Please close all containers of hazardous waste unless adding waste; submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes:	Returned to compliance on 06/08/2017. Observations of the hazardous waste storage issues (incorrect accumulation start date on acetone waste drum, unlabeled and open hazardous waste containers, etc.) indicate that weekly inspections are not occurring. Weekly inspections of hazardous waste storage areas are required. Begin these inspection immediately and provide records in the inspector after 30 days have passed.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (liquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 06/08/2017. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills at the end of every day and clean up these small spills within 48 hours. The system should also

SANFORD METAL PROCESSING CO (Continued) **1000230207**

	schedule regular cleanup of the non-RCRA hazardous waste solids (precipitate near the caustic tanks or "other organic solids"), and non-RCRA regulated solid, known as "floor sweep" or "other inorganic solids." Please develop and train your staff on a written procedure for cleanup of [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Returned to compliance on 04/12/2017. Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 06/08/2017.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter

SANFORD METAL PROCESSING CO (Continued) **1000230207**

	1, Section(s) 265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 02/26/2015. Eyewash not maintained
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding

SANFORD METAL PROCESSING CO (Continued) **1000230207**

waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 03-01-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Observed 5-gallon containers of hazardous waste sludge and precipitate intended for the hazardous waste super-sac (tri-wall box). Prior to disposal in super-sac these hazardous waste containers must be properly labeled and closed. Train staff to either label and close these HW containers or dispose immediately in the super-sac. Provide evidence of this training within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Violation Date: 02-24-2015
Citation: 22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description: Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes: Returned to compliance on 02/26/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Started inspection, to be completed in 2 days
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-10-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-09-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Research and letter draft for PBR closure
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-02-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-16-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Water analysis review for TP decision
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Date: 04-12-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw/eval/dwnload compli photos email
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-20-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-21-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-07-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: says map/plans provided to reg - current?
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-24-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-28-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-02-2017
Violations Found: Yes
Eval Type: Routine done by local agency

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-07-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-13-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Once volumes of potential CalARP chemicals are correct, the facility will be evaluated for CalARP requirements.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewing compliance submittals
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	A few items missing from inventory and map - muriatic acid near D-2, Manganese phosphate, HW in large tank (see HW inspection regarding the HW tank).
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-03-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw past vios; fill gaps; consult LM
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-21-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Observed disassembled evaporator and discussed documention
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-19-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	extend deadline
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-04-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: rvw CUPA and St online history
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Site Address: 990 OBRIEN DR
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 02-24-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 401399
Site Name: SANFORD METAL PROCESSING CO
Site Address: 990 OBRIEN DR
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 02-25-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 401399
Facility Name: SANFORD METAL PROCESSING CO
Env Int Type Code: SMSWIND
Program ID: 255539
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.474910
Longitude: -122.151040

Affiliation:
Affiliation Type Desc: Operator
Entity Name: Jose A. Sandoval
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Affiliation Zip:	Not reported
Affiliation Phone:	(650) 492-0982
Affiliation Type Desc:	Parent Corporation
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Luis A. Alcaraz
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Jose A. Sandoval
Entity Title:	Not reported
Affiliation Address:	990 Obrien Drive
Affiliation City:	Menlo park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Owner/Operator
Entity Name:	Jose Sandoval
Entity Title:	Operator
Affiliation Address:	990 Obrien Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	990 O'BRIEN DR

SANFORD METAL PROCESSING CO (Continued) **1000230207**

Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Luis A. Alcaraz
Entity Title:	Office Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not reported
Affiliation Address:	990 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 327-5172

K66 **SANFORD METAL PROCESSING INC.** **RCRA-LQG** **1019899296**
SSE **990 O'BRIEN DRIVE** **CAD981425560**
1/8-1/4 **MENLO PARK, CA 94025**
0.131 mi.
691 ft. **Site 6 of 9 in cluster K**

Relative: **Higher**

Actual: **13 ft.**

RCRA-LQG:

Date form received by agency:	06/22/2016
Facility name:	SANFORD METAL PROCESSING INC.
Facility address:	990 O'BRIEN DRIVE MENLO PARK, CA 94025
EPA ID:	CAD981425560
Mailing address:	O'BRIEN DRIVE MENLO PARK, CA 94025
Contact:	JOSE SANDOVAL
Contact address:	O"BRIEN DRIVE MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	650-327-5172
Contact email:	SANFORDMETAL@AOL.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

SANFORD METAL PROCESSING INC. (Continued) **1019899296**

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	JOSE SANDOVAL
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	10/01/1997
Owner/Op end date:	Not reported

Owner/operator name:	JOSE SANDOVAL
Owner/operator address:	O"BRIEN
	MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	650-327-5172
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	10/01/1997
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	722
. Waste name:	Liquids with cadmium > 100 mg/l

. Waste code:	D006
. Waste name:	CADMIUM

. Waste code:	D007
. Waste name:	CHROMIUM

SANFORD METAL PROCESSING INC. (Continued) **1019899296**

. Waste code: D008
. Waste name: LEAD

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 4581.7

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 4581.7

Waste code: D008
Waste name: LEAD
Amount (Lbs): 4581.7

Waste code: D010
Waste name: SELENIUM
Amount (Lbs): 4581.7

Waste code: D011
Waste name: SILVER
Amount (Lbs): 4581.7

Violation Status: No violations found

M67 **ELECTRO MOTION, INC.** **CA San Mateo Co. BI** **S102445202**
SSE **1001 OBRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.132 mi.
699 ft. **Site 1 of 6 in cluster M**

Relative:
Higher

Actual:
12 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0055976
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0077147
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Active, billable

Region: SAN MATEO
Facility ID: FA0055976
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0077148
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Active, billable

Region: SAN MATEO

ELECTRO MOTION, INC. (Continued) **S102445202**

Facility ID: FA0055976
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0077149
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0023928
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040629
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0023928
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0028074
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0023928
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0028075
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

M68 **ELECTRO MOTION INC** **CA CERS HAZ WASTE** **S121739517**
SSE **1001 OBRIEN DR** **CA CERS** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.132 mi.
699 ft. **Site 2 of 6 in cluster M**

Relative: **Higher**
Actual: **12 ft.**

CERS HAZ WASTE:
Site ID: 114200
CERS ID: 10615870
CERS Description: Hazardous Waste Generator

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-21-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Facility generates used oil (avg 200 gal/month), waste coolant (avg 100gal/month), oil filters (avg 50-100 pounds/month combined), and batteries (5-10 cores/month). Adjust inspection date to May or June.
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-21-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

ELECTRO MOTION INC (Continued) **S121739517**

Eval General Type: Other/Unknown
Eval Date: 12-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-18-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-21-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-20-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-18-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 114200
Facility Name: ELECTRO MOTION INC

ELECTRO MOTION INC (Continued) **S121739517**

Env Int Type Code: HWG
Program ID: 10615870
Coord Name: Not reported
Ref Point Type Desc: Entrance point of a facility or station
Latitude: 37.475251
Longitude: -122.151080

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: LISA MISKINIS
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1001 OBRIEN DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: Balco Properties, Ltd., LLC
Entity Title: Not reported
Affiliation Address: 1624 FRANKLIN STREET SUITE 1115
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 763-2911

Affiliation Type Desc: Environmental Contact
Entity Name: LYLE HUGHES
Entity Title: Not reported
Affiliation Address: 1001 O'Brien Dr.
Affiliation City: Menlo Park
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

ELECTRO MOTION INC (Continued) **S121739517**

Affiliation Type Desc:	Identification Signer
Entity Name:	LISA MISKINIS
Entity Title:	CONTROLLER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	ELECTRO-MOTION, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 321-6169

Affiliation Type Desc:	Legal Owner
Entity Name:	PHELPS, DAN
Entity Title:	Not reported
Affiliation Address:	1001 OBRIEN
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 321-6169

Affiliation Type Desc:	Parent Corporation
Entity Name:	ELECTRO MOTION, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

CERS TANKS:

Site ID:	114200
CERS ID:	10615870
Site Name:	ELECTRO MOTION INC
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Facility generates used oil (avg 200 gal/month), waste coolant (avg 100gal/month), oil filters (avg 50-100 pounds/month combined), and batteries (5-10 cores/month). Adjust inspection date to May or June.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW

ELECTRO MOTION INC (Continued) **S121739517**

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-21-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-18-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-21-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-20-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

ELECTRO MOTION INC (Continued) **S121739517**

Eval Date:	12-18-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	114200
Facility Name:	ELECTRO MOTION INC
Env Int Type Code:	HWG
Program ID:	10615870
Coord Name:	Not reported
Ref Point Type Desc:	Entrance point of a facility or station
Latitude:	37.475251
Longitude:	-122.151080

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	LISA MISKINIS
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1001 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	Balco Properties, Ltd., LLC
Entity Title:	Not reported
Affiliation Address:	1624 FRANKLIN STREET SUITE 1115
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	United States

ELECTRO MOTION INC (Continued) **S121739517**

Affiliation Zip:	94612
Affiliation Phone:	(510) 763-2911
Affiliation Type Desc:	Environmental Contact
Entity Name:	LYLE HUGHES
Entity Title:	Not reported
Affiliation Address:	1001 O'Brien Dr.
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	LISA MISKINIS
Entity Title:	CONTROLLER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	ELECTRO-MOTION, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 321-6169
Affiliation Type Desc:	Legal Owner
Entity Name:	PHELPS, DAN
Entity Title:	Not reported
Affiliation Address:	1001 OBRIEN
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 321-6169
Affiliation Type Desc:	Parent Corporation
Entity Name:	ELECTRO MOTION, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

N69 **PACIFIC BIOSCIENCES OF CA INC** **CA CERS HAZ WASTE** **S121787803**
ENE **960 HAMILTON AVE** **CA CERS TANKS** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CERS**
0.133 mi.
702 ft. **Site 1 of 19 in cluster N**

Relative:
Lower

Actual:
8 ft.

CERS HAZ WASTE:
Site ID: 54618
CERS ID: 10341724
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Violation Date: 02-17-2017
Citation: HSC 6.5 25123.3(h)(1)(c) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)(c)
Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal of acute/extremely hazardous waste after the first 1-kilogram threshold amount was accumulated within a 90 day period.
Violation Notes: Returned to compliance on 03/03/2017. Observed 3 containers of hazardous waste in chip manufacturing room that had exceeded their storage threshold. R Stager took photos of these containers during the inspection. Please dispose of these within 2 weeks and send inspector manifests.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Violation Date: 07-26-2013
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 08/29/2013.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Violation Date: 02-17-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 03/03/2017. Observed container labeled for liquid hazardous waste that contained lab debris instead. Please address this issue through training. (See training violation.)
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Violation Date:	07-26-2013
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	19 CCR 4 2729.2(a)(1) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(1)
Violation Description:	Owner/Operator failed to complete and/or submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 08/29/2013. emergency contact phone numbers are outdated.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to ensure incompatible waste and/or materials are not placed or stored in the same container or nearby or into an unwashed container, which previously contained incompatible waste and/or materials, so that it does not potentially result in the following: 1) Generate extreme heat or pressure, fire or explosion, or violent reaction; 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; 3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; 4) Damage the structural integrity of the device or facility containing the waste; or 5) Through other like means threaten human health or the environment.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	02-17-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 04/12/2017. Mislabeled containers and exceeded storage thresholds for hazardous materials in chip manufacturing and reagent manufacturing areas indicate that training may be a problem. Please address this problem by retrain any handlers

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

and generators of hazardous waste that are involved in these violations and any others that have not yet been trained or for whom training is overdue. Provide records to inspector within 30 days.

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:

Eval General Type: Other/Unknown
Eval Date: 02-17-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-17-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-27-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-26-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-17-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Met with Rebecca to further discuss relocation
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-13-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-17-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	This inspection address SPCC at buildings 940, 960, 1005 Hamilton, and 1305 O'Brien. Spill prevention during filling should mention how Pacific Bio ensure proper filling. Provide more specific identity of the party identified in case of a leak. Ensure any tank integrity testing results are included in the SPCC appendix.
Eval Division:	San Mateo County Environmental Health
Eval Program:	APSA
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-27-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-24-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Follow up on AST violations, all corrected
Eval Division:	San Mateo County Environmental Health
Eval Program:	APSA
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-25-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	change request
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-26-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-18-2016
Violations Found:	No

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Started inspection for campus
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-05-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-17-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-26-2013
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-22-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-04-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP and permit review
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-21-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Site Address: 960 HAMILTON AVE
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 07-26-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Site Address: 960 HAMILTON AVE
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 07-26-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 54618
Facility Name: PACIFIC BIOSCIENCES OF CA INC
Env Int Type Code: HWG
Program ID: 10341724
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.479350

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Longitude: -122.149260

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200

Affiliation Type Desc:	Legal Owner
Entity Name:	PACIFIC BIOSCIENCES OF CA INC
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 521-8000

Affiliation Type Desc:	Parent Corporation
Entity Name:	PACIFIC BIOSCIENCES OF CA INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Pacific Biosciences of California, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 521-8000

Affiliation Type Desc:	Environmental Contact
Entity Name:	Rebecca Stager
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Rebecca Stager
Entity Title:	Manager, EHS
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Rebecca Stager
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

CERS TANKS:

Facility Name:	PACIFIC BIOSCIENCES OF CA INC
Site ID:	54618
CERS ID:	10341724
CERS Description:	Aboveground Petroleum Storage

Violations:

Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	02-17-2017
Citation:	HSC 6.5 25123.3(h)(1)(c) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)(c)
Violation Description:	Failure to send hazardous waste offsite for treatment, storage, or disposal of acute/extremely hazardous waste after the first 1-kilogram threshold amount was accumulated within a 90 day period.
Violation Notes:	Returned to compliance on 03/03/2017. Observed 3 containers of hazardous waste in chip manufacturing room that had exceeded their storage threshold. R Stager took photos of these containers during the inspection. Please dispose of these within 2 weeks and send inspector manifests.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to maintain uniform hazardous waste manifest, consolidated

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

	manifest, or bills of lading copies for three years.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	02-17-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 03/03/2017. Observed container labeled for liquid hazardous waste that contained lab debris instead. Please address this issue through training. (See training violation.)
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	19 CCR 4 2729.2(a)(1) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(1)
Violation Description:	Owner/Operator failed to complete and/or submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 08/29/2013. emergency contact phone numbers are outdated.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to ensure incompatible waste and/or materials are not placed or stored in the same container or nearby or into an unwashed container, which previously contained incompatible waste and/or materials, so that it does not potentially result in the following: 1)

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Generate extreme heat or pressure, fire or explosion, or violent reaction; 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; 3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; 4) Damage the structural integrity of the device or facility containing the waste; or 5) Through other like means threaten human health or the environment.

Violation Notes: Returned to compliance on 08/29/2013.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Violation Date: 02-17-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 04/12/2017. Mislabeled containers and exceeded storage thresholds for hazardous materials in chip manufacturing and reagent manufacturing areas indicate that training may be a problem. Please address this problem by retrain any handlers and generators of hazardous waste that are involved in these violations and any others that have not yet been trained or for whom training is overdue. Provide records to inspector within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 02-17-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-17-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-27-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-26-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-17-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Met with Rebecca to further discuss relocation
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-13-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-17-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	This inspection address SPCC at buildings 940, 960, 1005 Hamilton, and 1305 O'Brien. Spill prevention during filling should mention how Pacific Bio ensure proper filling. Provide more specific identity of the party identified in case of a leak. Ensure any tank integrity testing results are included in the SPCC appendix.
Eval Division:	San Mateo County Environmental Health
Eval Program:	APSA
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-27-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-24-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Follow up on AST violations, all corrected

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Division: San Mateo County Environmental Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-25-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: change request
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-26-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-18-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Started inspection for campus
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-05-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-17-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-26-2013
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-22-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-04-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP and permit review
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-21-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Site Address: 960 HAMILTON AVE
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 07-26-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Enf Action Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Site Address: 960 HAMILTON AVE
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 07-26-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 54618
Facility Name: PACIFIC BIOSCIENCES OF CA INC
Env Int Type Code: HWG
Program ID: 10341724
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.479350
Longitude: -122.149260

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Legal Owner
Entity Name: PACIFIC BIOSCIENCES OF CA INC
Entity Title: Not reported
Affiliation Address: 1380 WILLOW RD
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94025
Affiliation Phone: (650) 521-8000

Affiliation Type Desc: Parent Corporation
Entity Name: PACIFIC BIOSCIENCES OF CA INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Affiliation Type Desc:	Operator
Entity Name:	Pacific Biosciences of California, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 521-8000

Affiliation Type Desc:	Environmental Contact
Entity Name:	Rebecca Stager
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Rebecca Stager
Entity Title:	Manager, EHS
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	Rebecca Stager
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

CERS TANKS:

Site ID:	54618
CERS ID:	10341724
Site Name:	PACIFIC BIOSCIENCES OF CA INC
CERS Description:	Chemical Storage Facilities

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Violations:

Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	02-17-2017
Citation:	HSC 6.5 25123.3(h)(1)(c) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)(c)
Violation Description:	Failure to send hazardous waste offsite for treatment, storage, or disposal of acute/extremely hazardous waste after the first 1-kilogram threshold amount was accumulated within a 90 day period.
Violation Notes:	Returned to compliance on 03/03/2017. Observed 3 containers of hazardous waste in chip manufacturing room that had exceeded their storage threshold. R Stager took photos of these containers during the inspection. Please dispose of these within 2 weeks and send inspector manifests.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	02-17-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 03/03/2017. Observed container labeled for liquid hazardous waste that contained lab debris instead. Please address this issue through training. (See training violation.)
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	19 CCR 4 2729.2(a)(1) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(1)
Violation Description:	Owner/Operator failed to complete and/or submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 08/29/2013. emergency contact phone numbers are outdated.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	07-26-2013
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to ensure incompatible waste and/or materials are not placed or stored in the same container or nearby or into an unwashed container, which previously contained incompatible waste and/or materials, so that it does not potentially result in the following: 1) Generate extreme heat or pressure, fire or explosion, or violent reaction; 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; 3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; 4) Damage the structural integrity of the device or facility containing the waste; or 5) Through other like means threaten human health or the environment.
Violation Notes:	Returned to compliance on 08/29/2013.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	54618
Site Name:	PACIFIC BIOSCIENCES OF CA INC
Violation Date:	02-17-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 04/12/2017. Mislabeled containers and exceeded storage thresholds for hazardous materials in chip manufacturing and reagent manufacturing areas indicate that training may be a problem. Please address this problem by retrain any handlers and generators of hazardous waste that are involved in these violations and any others that have not yet been trained or for whom training is overdue. Provide records to inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	02-17-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	02-17-2017
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	05-27-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-26-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-17-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Met with Rebecca to further discuss relocation
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	02-13-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-17-2017

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: This inspection address SPCC at buildings 940, 960, 1005 Hamilton, and 1305 O'Brien. Spill prevention during filling should mention how Pacific Bio ensure proper filling. Provide more specific identity of the party identified in case of a leak. Ensure any tank integrity testing results are included in the SPCC appendix.
Eval Division: San Mateo County Environmental Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-27-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Follow up on AST violations, all corrected
Eval Division: San Mateo County Environmental Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-25-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: change request
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-26-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-18-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Date: 02-25-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Started inspection for campus
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-05-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-17-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-26-2013
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-22-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-04-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Eval Notes: HMBP and permit review
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-21-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Site Address: 960 HAMILTON AVE
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 07-26-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 54618
Site Name: PACIFIC BIOSCIENCES OF CA INC
Site Address: 960 HAMILTON AVE
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 07-26-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 54618
Facility Name: PACIFIC BIOSCIENCES OF CA INC
Env Int Type Code: HWG
Program ID: 10341724
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.479350
Longitude: -122.149260

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Legal Owner
Entity Name:	PACIFIC BIOSCIENCES OF CA INC
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 521-8000
Affiliation Type Desc:	Parent Corporation
Entity Name:	PACIFIC BIOSCIENCES OF CA INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Pacific Biosciences of California, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 521-8000
Affiliation Type Desc:	Environmental Contact
Entity Name:	Rebecca Stager
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1380 WILLOW RD
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer

PACIFIC BIOSCIENCES OF CA INC (Continued) **S121787803**

Entity Name:	Rebecca Stager
Entity Title:	Manager, EHS
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Rebecca Stager
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

N70 **PACIFIC BIOSCIENCES OF CA INC** **CA AST** **A100423083**
ENE **960 HAMILTON AVE** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.133 mi.
702 ft. **Site 2 of 19 in cluster N**

Relative: **Lower**

Actual: **8 ft.**

AST:

Certified Unified Program Agencies:	Not reported
Owner:	PACIFIC BIOSCIENCES OF CA INC
Total Gallons:	Not reported
CERSID:	10341724
Facility ID:	Not reported
Business Name:	PACIFIC BIOSCIENCES OF CA INC
Phone:	6505218000
Fax:	6503239420
Mailing Address:	1380 WILLOW RD
Mailing Address City:	MENLO PARK
Mailing Address State:	CA
Mailing Address Zip Code:	94025
Operator Name:	Pacific Biosciences of California, Inc.
Operator Phone:	6505218000
Owner Phone:	6505218000
Owner Mail Address:	1380 WILLOW RD
Owner State:	CA
Owner Zip Code:	94025
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAR000218412

N71 **PACIFIC BIOSCIENCES OF CALIFORNIA** **RCRA-LQG** **1014465377**
ENE **960 HAMILTON AVE** **CA HAZNET** **CAR000218412**
1/8-1/4 **MENLO PARK, CA 94025**
0.133 mi.
702 ft. **Site 3 of 19 in cluster N**

Relative:
Lower

Actual:
8 ft.

RCRA-LQG:

Date form received by agency:	02/26/2018
Facility name:	PACIFIC BIOSCIENCES OF CALIFORNIA
Facility address:	960 HAMILTON AVE MENLO PARK, CA 94025-0000
EPA ID:	CAR000218412
Mailing address:	O'BRIEN DRIVE MENLO PARK, CA 94025
Contact:	REBECCA J STAGER
Contact address:	O'BRIEN DRIVE MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	650-521-8480
Contact email:	RSTAGER@PACB.COM
EPA Region:	09
Land type:	Private
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	AMB PROPERTY CORP
Owner/operator address:	1360 WILLOW RD STE 100 MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	650-330-9000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	County
Owner/Operator Type:	Owner
Owner/Op start date:	09/24/1998
Owner/Op end date:	Not reported

Owner/operator name:	PACIFIC BIOSCIENCES OF CALIFORNIA
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	County

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

Owner/Operator Type: Operator
Owner/Op start date: 03/25/2011
Owner/Op end date: Not reported

Owner/operator name: PENINSULA INNOVATION PARTNERS, LLC
Owner/operator address: HACKER WAY
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-543-4912
Owner/operator email: TOMWIRTH@FB.COM
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/30/2015
Owner/Op end date: Not reported

Owner/operator name: PACIFIC BIOSCIENCES OF CA, INC.
Owner/operator address: O'BRIEN DRIVE
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-521-8480
Owner/operator email: RSTAGER@PACB.COM
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/25/2011
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 791

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D026
. Waste name: CRESOL

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U052
. Waste name: CRESOL (CRESYLIC ACID) (OR) PHENOL, METHYL-

Historical Generators:
Date form received by agency: 01/18/2018
Site name: PACIFIC BIOSCIENCES
Classification: Not a generator, verified

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 291
. Waste name: Latex waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D025
. Waste name: P-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/02/2017
Site name: PACIFIC BIOSCIENCES
Classification: Large Quantity Generator

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 291
. Waste name: Latex waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D025
. Waste name: P-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

Date form received by agency: 09/03/2014
Site name: PACIFIC BIOSCIENCES
Classification: Small Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 291
. Waste name: Latex waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D025
. Waste name: P-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 05/02/2011
Site name: PACIFIC BIOSCIENCES
Classification: Small Quantity Generator

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D026
. Waste name: CRESOL

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 11/18/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

HAZNET:
Site Name: PACIFIC BIOSCIENCES OF CALIFORNIA
Year: 2017
GEPAID: CAR000218412
Contact: REBECCA STAGER
Telephone: 6505218480
Mailing Name: Not reported
Mailing Address: 1305 O'BRIEN DRIVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.021
Cat Decode: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: PACIFIC BIOSCIENCES OF CALIFORNIA
Year: 2017
GEPAID: CAR000218412
Contact: REBECCA STAGER
Telephone: 6505218480
Mailing Name: Not reported
Mailing Address: 1305 O'BRIEN DRIVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.095
Cat Decode: Other organic solids
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: San Mateo

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

Site Name:	PACIFIC BIOSCIENCES OF CALIFORNIA
Year:	2017
GEPAID:	CAR000218412
Contact:	REBECCA STAGER
Telephone:	6505218480
Mailing Name:	Not reported
Mailing Address:	1305 O'BRIEN DRIVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.021
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo

Site Name:	PACIFIC BIOSCIENCES OF CALIFORNIA
Year:	2017
GEPAID:	CAR000218412
Contact:	REBECCA STAGER
Telephone:	6505218480
Mailing Name:	Not reported
Mailing Address:	1305 O'BRIEN DRIVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	4.2035
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	San Mateo

Site Name:	PACIFIC BIOSCIENCES OF CALIFORNIA
Year:	2017
GEPAID:	CAR000218412
Contact:	REBECCA STAGER
Telephone:	6505218480
Mailing Name:	Not reported
Mailing Address:	1305 O'BRIEN DRIVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	4.2035
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Fuel Blending Prior To Energy Recovery At Another Site
Facility County:	San Mateo

PACIFIC BIOSCIENCES OF CALIFORNIA (Continued) **1014465377**

Click this hyperlink while viewing on your computer to access
101 additional CA_HAZNET: record(s) in the EDR Site Report.

L72 **AMB WILLOW BUSINESS PARK** **RCRA-SQG** **1000472926**
NE **933 HAMILTON AVE** **FINDS** **CAD982435562**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.134 mi.
705 ft. **Site 2 of 6 in cluster L**

Relative:
Lower

Actual:
8 ft.

RCRA-SQG:

Date form received by agency:	07/28/2004
Facility name:	AMB WILLOW BUSINESS PARK
Facility address:	933 HAMILTON AVE MENLO PARK, CA 94025
EPA ID:	CAD982435562
Mailing address:	PIER 1 BAY 1 SAN FRANCISCO, CA 94111
Contact:	STEVEN E CAMPBELL
Contact address:	PIER 1 BAY 1 SAN FRANCISCO, CA 94111
Contact country:	US
Contact telephone:	415-394-9000
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	AMB PROP CORP
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1999
Owner/Op end date:	Not reported

Owner/operator name:	AMB PROP CORP
Owner/operator address:	PIER 1 BAY 1 SAN FRANCISCO, CA 94111
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1999

AMB WILLOW BUSINESS PARK (Continued) **1000472926**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D002
. Waste name: CORROSIVE WASTE

Historical Generators:
Date form received by agency: 11/21/1990
Site name: P S I STAR DBA STAR ETCH
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002811529

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000472926
Registry ID: 110002811529
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002811529

L73 **MEMBRANE TECHNOLOGY & RESEARCH** **CA San Mateo Co. BI** **S107472764**
ENE **953 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.141 mi.
746 ft. **Site 3 of 6 in cluster L**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0029449
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0050128
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0029449
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0050127
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0046230
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0062555
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0046230
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0062556
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0046230
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0062554
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

K74 **NOREN PRODUCTS** **RCRA-SQG** **1000206774**
SSE **1010 OBRIEN DR** **FINDS** **CAD981985765**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.144 mi. **CA San Mateo Co. BI**
759 ft. **Site 7 of 9 in cluster K**

Relative: **Higher**
Actual: **13 ft.**

RCRA-SQG:

Date form received by agency:	03/25/1987
Facility name:	NOREN PRODUCTS
Facility address:	1010 OBRIEN DR MENLO PARK, CA 94025
EPA ID:	CAD981985765
Contact:	ENVIRONMENTAL MANAGER
Contact address:	1010 OBRIEN DR MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	415-322-9500
Contact email:	Not reported

NOREN PRODUCTS (Continued) **1000206774**

EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: DON NOREN
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002765455

NOREN PRODUCTS (Continued) **1000206774**

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000206774
Registry ID:	110002765455
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002765455

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0007584
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0011489
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0007584
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040532
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0007584
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0004155
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Inactive, non-billable

K75 **NOREN PRODUCTS INC** **CA LUST** **S113011437**
SSE **1010 OBRIEN DR** **CA HAZNET** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CERS**
0.144 mi.
759 ft. **Site 8 of 9 in cluster K**

Relative: **Higher**
Actual: **13 ft.**

SAN MATEO CO. LUST:

Region:	SAN MATEO
Facility ID:	449098
Facility Status:	9- Case Closed
Global ID:	T10000010914

NOREN PRODUCTS INC (Continued) **S113011437**

APN Number: 055422100
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

HAZNET:
Site Name: NOREN PRODUCTS INC
Year: 2014
GEPAID: CAD981985765
Contact: MIKE TATE
Telephone: 6504444689
Mailing Name: Not reported
Mailing Address: 1010 OBRIEN DR
Mailing City,St,Zip: MENLO PARK, CA 940251409
Gen County: San Mateo
TSD EPA ID: ARD981057870
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.198
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: NOREN PRODUCTS INC
Year: 2009
GEPAID: CAD981985765
Contact: MIKE TATE
Telephone: 6504444689
Mailing Name: Not reported
Mailing Address: 1010 OBRIEN DR
Mailing City,St,Zip: MENLO PARK, CA 940251409
Gen County: Not reported
TSD EPA ID: CAD059494310
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.072
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: NOREN PRODUCTS INC
Year: 2009
GEPAID: CAD981985765
Contact: MIKE TATE
Telephone: 6504444689
Mailing Name: Not reported
Mailing Address: 1010 OBRIEN DR
Mailing City,St,Zip: MENLO PARK, CA 940251409
Gen County: Not reported
TSD EPA ID: UTD981552177
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.085
Cat Decode: Not reported

NOREN PRODUCTS INC (Continued) **S113011437**

Method Decode: Not reported
Facility County: San Mateo

Site Name: NOREN PRODUCTS INC
Year: 2009
GEPAID: CAD981985765
Contact: MIKE TATE
Telephone: 6504444689
Mailing Name: Not reported
Mailing Address: 1010 OBRIEN DR
Mailing City,St,Zip: MENLO PARK, CA 940251409
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Other Treatment
Tons: 0.4
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: NOREN PRODUCTS INC
Year: 2006
GEPAID: CAD981985765
Contact: KIMBERLEY DAWN, C.E.O.
Telephone: 6503229500
Mailing Name: Not reported
Mailing Address: 1010 OBRIEN DR
Mailing City,St,Zip: MENLO PARK, CA 940251409
Gen County: Not reported
TSD EPA ID: CAD009452657
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Recycler
Tons: 0.22
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
6 additional CA_HAZNET: record(s) in the EDR Site Report.

K76 **NOREN PRODUCTS** **CA CPS-SLIC** **S121308068**
SSE **1010 O'BRIEN DRIVE** **N/A**
1/8-1/4 **MENLO PARK, CA**
0.144 mi.
759 ft. **Site 9 of 9 in cluster K**

Relative:
Higher

Actual:
13 ft.

CPS-SLIC:
Site Name: NOREN PRODUCTS
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 09/19/2018
Global Id: T10000010914
Lead Agency: SAN MATEO COUNTY LOP
Lead Agency Case Number: 449098
Latitude: 37.47461
Longitude: -122.15145

NOREN PRODUCTS (Continued) **S121308068**

Case Type:	Cleanup Program Site
Case Worker:	BG
Local Agency:	SAN MATEO COUNTY LOP
RB Case Number:	Not reported
File Location:	Not reported
Potential Media Affected:	Soil Vapor, Under Investigation
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

O77 **DM FIGLEY CO., INC.** **CA San Mateo Co. BI** **S117398859**
SE **10 KELLY** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.145 mi.
763 ft. **Site 1 of 6 in cluster O**

Relative: **Higher**
Actual: **12 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0056976
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0078966
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0056976
Prog Element Code:	GEN <1 TONS HAZ WASTE/YR
Record Id:	PR0078965
Description:	GEN <1 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0056976
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0078964
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Active, billable

O78 **D M FIGLEY CO INC** **CA San Mateo Co. BI** **S103619537**
SE **10 KELLY** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.145 mi.
763 ft. **Site 2 of 6 in cluster O**

Relative: **Higher**
Actual: **12 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0005467
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040525
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0005467
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3

D M FIGLEY CO INC (Continued) **S103619537**

Record Id: PR0004124
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0005467
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0031243
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

N79 **MENLO IND. PARK LIFT STATION** **CA LUST S103472753**
ENE **1990 HAMILTON** **CA CERS N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.148 mi.
781 ft. **Site 4 of 19 in cluster N**

Relative: **Lower**
Actual: **8 ft.**

LUST:
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100643
Global Id: T0608100643
Latitude: 37.4784922937394
Longitude: -122.14888705014
Status: Completed - Case Closed
Status Date: 02/09/1995
Case Worker: Not reported
RB Case Number: 41-0676
Local Agency: Not reported
File Location: Local Agency
Local Case Number: 440036
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608100643
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100643
Action Type: Other
Date: 11/20/1992
Action: Leak Reported

Global Id: T0608100643
Action Type: Other
Date: 12/11/1992
Action: Leak Discovery

Global Id: T0608100643
Action Type: ENFORCEMENT

MENLO IND. PARK LIFT STATION (Continued) **S103472753**

Date: 12/11/1992
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608100643
Status: Completed - Case Closed
Status Date: 02/09/1995

Global Id: T0608100643
Status: Open - Case Begin Date
Status Date: 11/20/1992

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 440036
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440036
Facility Status: 9- Case Closed
Global ID: T0608100643
APN Number: 055440090
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

CERS TANKS:
Site ID: 245424
CERS ID: T0608100643
Site Name: MENLO IND. PARK LIFT STATION
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

J80 **PROFESSIONAL TREE CARE CO** **CA San Mateo Co. BI** **S110376409**
NW **767 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.148 mi.
783 ft. **Site 4 of 4 in cluster J**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0046507
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0063287
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0046507
Prog Element Code:	BUSINESS PLAN - GENERAL
Record Id:	PR0069274
Description:	BUSINESS PLAN - GENERAL
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0046507
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0063286
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Inactive, non-billable

I81 **INVISAGE TECHNOLOGIES INC** **RCRA NonGen / NLR** **1016140009**
ESE **990 HAMILTON AVE** **FINDS** **CAR000235911**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.150 mi.
793 ft. **Site 4 of 5 in cluster I**

Relative: **Higher**
Actual: **12 ft.**

RCRA NonGen / NLR:

Date form received by agency:	03/06/2017
Facility name:	INVISAGE TECHNOLOGIES INC
Facility address:	990 HAMILTON AVE MENLO PARK, CA 94025
EPA ID:	CAR000235911
Contact:	WOODY K CHUNG
Contact address:	990 HAMILTON AVE MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	408-217-0453
Contact email:	WOODY.CHUNG@INVISAGE.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	INVISAGE TECHNOLOGIES INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported

INVISAGE TECHNOLOGIES INC (Continued) **1016140009**

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/01/2008
Owner/Op end date: Not reported

Owner/operator name: PROLOGIS
Owner/operator address: 3353 GATEWAY BLVD
FREMONT, CA 94538
Owner/operator country: US
Owner/operator telephone: 510-656-1900
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/24/1998
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551

INVISAGE TECHNOLOGIES INC (Continued) **1016140009**

. Waste name: Laboratory waste chemicals

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U135
. Waste name: HYDROGEN SULFIDE (OR) HYDROGEN SULFIDE H2S

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

Historical Generators:
Date form received by agency: 02/14/2013
Site name: INVISAGE TECHNOLOGIES INC
Classification: Small Quantity Generator

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

INVISAGE TECHNOLOGIES INC (Continued) **1016140009**

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

INVISAGE TECHNOLOGIES INC (Continued) **1016140009**

. Waste code: U135
. Waste name: HYDROGEN SULFIDE (OR) HYDROGEN SULFIDE H2S

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

Violation Status: No violations found

FINDS:

Registry ID: 110055438281

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016140009
Registry ID: 110055438281
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110055438281

I82 **A & B PROPERTY CORP** **CA CERS HAZ WASTE** **S112914825**
ESE **990 HAMILTON** **CA HAZNET** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CERS**
0.150 mi.
793 ft. **Site 5 of 5 in cluster I**

Relative:
Higher

Actual:
12 ft.

CERS HAZ WASTE:
Site ID: 519694
CERS ID: 10766353
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 519694
Site Name: FACEBOOK MPK59
Violation Date: 08-31-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 11/30/2018. On-boarding training does not provide training in spill response. Please complete the remaining quarter (roughly 4000 employees) of staff training within 90 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

A & B PROPERTY CORP (Continued) **S112914825**

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	08-17-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-31-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Facebook
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 681-7904

Affiliation Type Desc:	Document Preparer
Entity Name:	Karen Sieverson
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Karen Sieverson
Entity Title:	EHS Manager, MPK
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported

A & B PROPERTY CORP (Continued) **S112914825**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Facebook
Entity Title:	Not reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 543-4800
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Sam Nordberg
Entity Title:	Not reported
Affiliation Address:	1 Hacker Way Attn: Sam Nordberg
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	FACEBOOK MPK59
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HAZNET:

Site Name:	INVISAGE TECHNOLOGIES INC
Year:	2017
GEPAID:	CAR000235911
Contact:	DAVID JONES
Telephone:	4089869000
Mailing Name:	Not reported
Mailing Address:	990 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles

A & B PROPERTY CORP (Continued) **S112914825**

Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.005
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: INVISAGE TECHNOLOGIES INC
Year: 2017
GEPAID: CAR000235911
Contact: DAVID JONES
Telephone: 4089869000
Mailing Name: Not reported
Mailing Address: 990 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.3025
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: INVISAGE TECHNOLOGIES INC
Year: 2017
GEPAID: CAR000235911
Contact: DAVID JONES
Telephone: 4089869000
Mailing Name: Not reported
Mailing Address: 990 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAT080014079
TSD County: Contra Costa
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0455
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: INVISAGE TECHNOLOGIES INC
Year: 2017
GEPAID: CAR000235911
Contact: DAVID JONES
Telephone: 4089869000
Mailing Name: Not reported
Mailing Address: 990 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000

A & B PROPERTY CORP (Continued) **S112914825**

Gen County: San Mateo
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0425
Cat Decode: Unspecified solvent mixture
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: INVISAGE TECHNOLOGIES INC
Year: 2017
GEPAID: CAR000235911
Contact: DAVID JONES
Telephone: 4089869000
Mailing Name: Not reported
Mailing Address: 990 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.2
Cat Decode: Other inorganic solid waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
44 additional CA_HAZNET: record(s) in the EDR Site Report.

CERS TANKS:
Site ID: 519694
CERS ID: 10766353
Site Name: FACEBOOK MPK59
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 519694
Site Name: FACEBOOK MPK59
Violation Date: 08-31-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 11/30/2018. On-boarding training does not provide training in spill response. Please complete the remaining quarter (roughly 4000 employees) of staff training within 90 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

A & B PROPERTY CORP (Continued) **S112914825**

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	08-17-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-31-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Facebook
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 681-7904

Affiliation Type Desc:	Document Preparer
Entity Name:	Karen Sieverson
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Karen Sieverson
Entity Title:	EHS Manager, MPK
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported

A & B PROPERTY CORP (Continued) **S112914825**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Facebook
Entity Title:	Not reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 543-4800
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Sam Nordberg
Entity Title:	Not reported
Affiliation Address:	1 Hacker Way Attn: Sam Nordberg
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	FACEBOOK MPK59
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

P83 **RAYCHEM CORPORATION** **RCRA-SQG** **1000170337**
East **980 HAMILTON AVE** **CAT000617456**
1/8-1/4 **MENLO PARK, CA 94025**
0.151 mi.
798 ft. **Site 1 of 4 in cluster P**

Relative: RCRA-SQG:
Higher

Date form received by agency:	09/01/1996
Facility name:	RAYCHEM CORPORATION
Facility address:	980 HAMILTON AVE MENLO PARK, CA 94025
EPA ID:	CAT000617456
Contact:	Not reported

Actual:
11 ft.

RAYCHEM CORPORATION (Continued) **1000170337**

Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: LINCOLN PROPERTIES CO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No

RAYCHEM CORPORATION (Continued) **1000170337**

Used oil transporter: No

Historical Generators:
Date form received by agency: 04/30/1990
Site name: RAYCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Site name: RAYCHEM CORPORATION
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 03/20/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

L84 **CETERIX ORTHOPAEDICS** **CA San Mateo Co. BI** **S113145527**
ENE **959 HAMILTON AVE** **CA HAZNET** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.153 mi.
806 ft. **Site 4 of 6 in cluster L**

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0050420
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0074707
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0050420
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0069776
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0050420
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0074703
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0050420
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0074706
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

HAZNET:
Site Name: CETERIX ORTHOPAEDICS

CETERIX ORTHOPAEDICS (Continued) **S113145527**

Year:	2016
GEPAID:	CAL000388582
Contact:	SCOTT KING
Telephone:	6503963478
Mailing Name:	Not reported
Mailing Address:	6500 KAISER DRIVE
Mailing City,St,Zip:	FREMONT, CA 945550000
Gen County:	San Mateo
TSD EPA ID:	NMD002208627
TSD County:	99
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0875
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	CETERIX ORTHOPAEDICS
Year:	2015
GEPAID:	CAL000388582
Contact:	SCOTT KING
Telephone:	6503963478
Mailing Name:	Not reported
Mailing Address:	959 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	NMD002208627
TSD County:	99
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.152
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	CETERIX ORTHOPAEDICS
Year:	2014
GEPAID:	CAL000388582
Contact:	MICHAEL HENDRICKSEN
Telephone:	6503168662
Mailing Name:	Not reported
Mailing Address:	959 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	NMD002208627
TSD County:	99
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.1156
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name: CETERIX ORTHOPAEDICS

CETERIX ORTHOPAEDICS (Continued) **S113145527**

Year:	2013
GEPAID:	CAL000388582
Contact:	RICH FERRICK
Telephone:	6506145207
Mailing Name:	Not reported
Mailing Address:	959 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	San Mateo
TSD EPA ID:	NMD002208627
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0612
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

Site Name:	CETERIX ORTHOPAEDICS
Year:	2013
GEPAID:	CAC002729488
Contact:	RICH FERRICK
Telephone:	6503168660
Mailing Name:	Not reported
Mailing Address:	959 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940251431
Gen County:	San Mateo
TSD EPA ID:	NMD002208627
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0714
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

Click this hyperlink while viewing on your computer to access
5 additional CA_HAZNET: record(s) in the EDR Site Report.

L85 **CETERIX ORTHOPAEDICS** **RCRA NonGen / NLR** **1024840137**
ENE **959 HAMILTON AVE** **CAL000388582**
1/8-1/4 **MENLO PARK, CA 94025**
0.153 mi.
806 ft. **Site 5 of 6 in cluster L**

Relative: RCRA NonGen / NLR:
Lower

Date form received by agency:	08/13/2013
Facility name:	CETERIX ORTHOPAEDICS
Facility address:	959 HAMILTON AVE MENLO PARK, CA 94025
EPA ID:	CAL000388582
Mailing address:	6500 KAISER DRIVE SUITE 120 FREMONT, CA 94555-0000
Contact:	MALVINA LIBMAN
Contact address:	6500 KAISER DR. STE 120 FREMONT, CA 94555

Actual:
8 ft.

CETERIX ORTHOPAEDICS (Continued) **1024840137**

Contact country: Not reported
Contact telephone: 510-449-0055
Contact email: MLIBMAN@CETERIX.VOM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: CETERIX ORTHOPAEDICS INC
Owner/operator address: 6500 KAISER DRIVE SUITE 120
FREMONT, CA 94555
Owner/operator country: Not reported
Owner/operator telephone: 510-449-0055
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MALVINA LIBMAN
Owner/operator address: 6500 KAISER DR. STE 120
FREMONT, CA 94555
Owner/operator country: Not reported
Owner/operator telephone: 510-449-0055
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

L86 **HEARTVISTA** **CA San Mateo Co. BI** **S113407649**
NE **998 HAMILTON** **CA CERS** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.154 mi.
813 ft. **Site 6 of 6 in cluster L**

Relative:
Lower

Actual:
8 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0052963
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0073319
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0052963
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0073318
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

CERS TANKS:

Site ID:	368468
CERS ID:	10507381
Site Name:	HEARTVISTA
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	04-15-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	09-10-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	PORTAL HMBP review
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Ellen L Ackerman
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Juan Santos

HEARTVISTA (Continued) **S113407649**

Entity Title:	Not reported
Affiliation Address:	998 HAMILTON
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Juan Santos
Entity Title:	CEO
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	HeartVista
Entity Title:	Not reported
Affiliation Address:	998 HAMILTON
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 336-6543
Affiliation Type Desc:	Operator
Entity Name:	HeartVista
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 336-6543
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	998 HAMILTON
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

HEARTVISTA (Continued) **S113407649**

Affiliation Type Desc:	Parent Corporation
Entity Name:	HeartVista
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

M87 **AVALANCHE BIOTECHNOLGIES INC** **CA CERS HAZ WASTE** **S121768578**
SSE **1035 OBRIEN DR** **CA CERS** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.160 mi.
844 ft. **Site 3 of 6 in cluster M**

Relative: **Higher**
Actual: **12 ft.**

CERS HAZ WASTE:

Site ID:	369454
CERS ID:	10508254
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-18-2015
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain and/or maintain an Active EPA ID.
Violation Notes:	Returned to compliance on 09/06/2016. Your EPA number is inactive. You must have an active EPA number. Contact the DTSC and have your EPA number activated and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-18-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 01/21/2016. Waste labels must contain all of the information required. Your current waste labels are missing 2 items: state (ie. Liquid or solid) and hazardous properties (I, C, R, T). Update your labeling and provide verification of labeling compliance to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-19-2017
Citation:	HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95,

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Section(s) 25505.1
Violation Description: Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.
Violation Notes: Returned to compliance on 01/26/2018. Facility has not formally notified the landlord of the storage of hazardous materials and availability of the business plan. Within 30 days, please use the template provided by the inspector to notify your landlord and copy the inspector.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 02-18-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: new facility compliance review and report submittals/.
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-19-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-10-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-30-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-20-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: new facility portal approvals
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-28-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: portal approval
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-06-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-18-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-10-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP review from old dist.
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-18-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-19-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Facility is a small quantity generator. Disposal of NaOH wastewater can reach more than 800 pounds in a month. Adverum is considering a permit for a NaOH waterwater neutralization system. Other wastes include flammable liquids, some acid waste, and non-RCRA solids in much lower volumes.
Eval Division: San Mateo County Environmental Health

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 369454
Facility Name: AVALANCHE BIOTECHNOLGIES INC
Env Int Type Code: HWG
Program ID: 10508254
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.474810
Longitude: -122.150250

Affiliation:
Affiliation Type Desc: Operator
Entity Name: Avalanche Biotechnologies
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 656-9356

Affiliation Type Desc: Document Preparer
Entity Name: Mehdi Gasmi
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Environmental Contact
Entity Name: Mehdi Gasmi VP Pharmcuetical DEvelopment
Entity Title: Not reported
Affiliation Address: 1035 Obrein Dr
Affiliation City: Menlo Park
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Entity Title: Not reported
Affiliation Address: 1035 OBRIEN DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: AVALANCHE BIOTECHNOLGIES INC
Entity Title: Not reported
Affiliation Address: 1035 OBRIEN DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94025
Affiliation Phone: (650) 656-9356

Affiliation Type Desc: Identification Signer
Entity Name: Mehdi Gasmi
Entity Title: VP Pharmaceutical Dev
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: AVALANCHE BIOTECHNOLGIES INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:
Site ID: 369454
CERS ID: 10508254
Site Name: AVALANCHE BIOTECHNOLGIES INC
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 369454
Site Name: AVALANCHE BIOTECHNOLGIES INC
Violation Date: 12-18-2015
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain and/or maintain an Active EPA ID.
Violation Notes: Returned to compliance on 09/06/2016. Your EPA number is inactive. You must have an active EPA number. Contact the DTSC and have your EPA number activated and provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Violation Source: CERS

Site ID: 369454
Site Name: AVALANCHE BIOTECHNOLGIES INC
Violation Date: 12-18-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 01/21/2016. Waste labels must contain all of the information required. Your current waste labels are missing 2 items: state (ie. Liquid or solid) and hazardous properties (I, C, R, T). Update your labeling and provide verification of labeling compliance to the County within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 369454
Site Name: AVALANCHE BIOTECHNOLGIES INC
Violation Date: 12-19-2017
Citation: HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95, Section(s) 25505.1
Violation Description: Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.
Violation Notes: Returned to compliance on 01/26/2018. Facility has not formally notified the landlord of the storage of hazardous materials and availability of the business plan. Within 30 days, please use the template provided by the inspector to notify your landlord and copy the inspector.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 02-18-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: new facility compliance review and report submittals/.
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-19-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Eval Date: 06-10-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-30-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-20-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: new facility portal approvals
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-28-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: portal approval
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-06-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-18-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-10-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Eval Notes:	HMBP review from old dist.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-19-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Facility is a small quantity generator. Disposal of NaOH wastewater can reach more than 800 pounds in a month. Adverum is considering a permit for a NaOH waterwater neutralization system. Other wastes include flammable liquids, some acid waste, and non-RCRA solids in much lower volumes.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Coordinates:

Site ID:	369454
Facility Name:	AVALANCHE BIOTECHNOLGIES INC
Env Int Type Code:	HWG
Program ID:	10508254
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.474810
Longitude:	-122.150250

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Avalanche Biotechnologies
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 656-9356
Affiliation Type Desc:	Document Preparer
Entity Name:	Mehdi Gasmi
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mehdi Gasmi VP Pharmcuetical DEvelopment
Entity Title:	Not reported
Affiliation Address:	1035 Obrein Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1035 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	AVALANCHE BIOTECHNOLGIES INC
Entity Title:	Not reported
Affiliation Address:	1035 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 656-9356
Affiliation Type Desc:	Identification Signer
Entity Name:	Mehdi Gasmi
Entity Title:	VP Pharmaceutical Dev
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	AVALANCHE BIOTECHNOLGIES INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported

AVALANCHE BIOTECHNOLGIES INC (Continued) **S121768578**

Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

M88 **ADVERUM BIOTECHNOLGIES INC** **CA San Mateo Co. BI** **S119781695**
SSE **1035 OBRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.160 mi.
844 ft. **Site 4 of 6 in cluster M**

Relative: **Higher**
Actual: **12 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0054963
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0075781
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0054963
Prog Element Code: LARGE QTY GEN >200 LB/MO OFFSITE TREATMENT
Record Id: PR0077384
Description: LQG OFF-SITE TREATMENT >200 LB/MO
Facility Status: Active, billable

Region: SAN MATEO
Facility ID: FA0054963
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0075779
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Active, billable

Region: SAN MATEO
Facility ID: FA0054963
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0075780
Description: GENERATES <27 GAL/YEAR
Facility Status: Active, billable

N89 **CHEMETAL, INC** **RCRA-SQG** **1000298704**
ENE **970 HAMILTON CT** **CA HAZNET** **CAD981375447**
1/8-1/4 **MENLO PARK, CA 94025**
0.164 mi.
868 ft. **Site 5 of 19 in cluster N**

Relative: **Lower**
Actual: **9 ft.**

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: CHEMETAL, INC
Facility address: 970 HAMILTON CT
MENLO PARK, CA 94025
EPA ID: CAD981375447
Contact: Not reported
Contact address: Not reported
Not reported

CHEMETAL, INC (Continued) **1000298704**

Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: LINCOLN PROPERTIES
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

CHEMETAL, INC (Continued) **1000298704**

Historical Generators:
Date form received by agency: 09/01/1996
Site name: CHEMETAL, INC
Classification: Small Quantity Generator

Date form received by agency: 01/24/1994
Site name: CHEMETAL, INC.
Classification: Large Quantity Generator

Date form received by agency: 04/15/1992
Site name: CHEMETAL
Classification: Large Quantity Generator

Date form received by agency: 01/29/1986
Site name: CHEMETAL, INC
Classification: Small Quantity Generator

Violation Status: No violations found

HAZNET:
Site Name: CHEMETAL, INC
Year: 1995
GEPAID: CAD981375447
Contact: JONATHAN ROSSITER
Telephone: 4153286060
Mailing Name: Not reported
Mailing Address: 970 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940251430
Gen County: Not reported
TSD EPA ID: AZD980735500
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .1750
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: CHEMETAL, INC
Year: 1995
GEPAID: CAD981375447
Contact: JONATHAN ROSSITER
Telephone: 4153286060
Mailing Name: Not reported
Mailing Address: 970 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940251430
Gen County: Not reported
TSD EPA ID: AZD009015389
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Recycler
Tons: .0100
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: CHEMETAL, INC

CHEMETAL, INC (Continued) **1000298704**

Year:	1995
GEPAID:	CAD981375447
Contact:	JONATHAN ROSSITER
Telephone:	4153286060
Mailing Name:	Not reported
Mailing Address:	970 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940251430
Gen County:	Not reported
TSD EPA ID:	CAD009452657
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Recycler
Tons:	.1500
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	CHEMETAL, INC
Year:	1995
GEPAID:	CAD981375447
Contact:	JONATHAN ROSSITER
Telephone:	4153286060
Mailing Name:	Not reported
Mailing Address:	970 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940251430
Gen County:	Not reported
TSD EPA ID:	CAD981375983
TSD County:	Not reported
Waste Category:	Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	Recycler
Tons:	3.5445
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	CHEMETAL, INC
Year:	1995
GEPAID:	CAD981375447
Contact:	JONATHAN ROSSITER
Telephone:	4153286060
Mailing Name:	Not reported
Mailing Address:	970 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940251430
Gen County:	Not reported
TSD EPA ID:	CAD009452657
TSD County:	Not reported
Waste Category:	Liquids with chromium (VI) >= 500 Mg./L
Disposal Method:	Recycler
Tons:	2.5228
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Click this hyperlink while viewing on your computer to access
32 additional CA_HAZNET: record(s) in the EDR Site Report.

N90 **CHEMETAL** **CA CHMIRS** **S100220650**
ENE **970 HAMILTON COURT** **CA San Mateo Co. BI** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA EMI**
0.164 mi.
868 ft. **Site 6 of 19 in cluster N**

Relative:
Lower

Actual:
9 ft.

CHMIRS:

OES Incident Number:	013422
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**10-OCT-90**
Property Use:	600
Agency Id Number:	41050
Agency Incident Number:	1698
Time Notified:	6
Time Completed:	527
Surrounding Area:	600
Estimated Temperature:	55
Property Management:	P
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	1
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	2
Others Number Of Injuries:	2
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	RONALD KEEFER
Report Date:	15-OCT-90
Facility Telephone:	415 688-8400
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	10-OCT-90
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	12-JUN-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported

CHEMETAL (Continued) **S100220650**

Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	N
Description:	Not reported

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0017642
Prog Element Code:	GEN 1-5 TONS HAZ WASTE/YR
Record Id:	PR0026918
Description:	GEN 1-5 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017642
Prog Element Code:	STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id:	PR0026919
Description:	STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017642
Prog Element Code:	PERMIT BY RULE (PBR)
Record Id:	PR0029913
Description:	PERMIT BY RULE (PBR)
Facility Status:	Inactive, non-billable

EMI:

Year:	1993
County Code:	41
Air Basin:	SF
Facility ID:	7773
Air District Name:	BA
SIC Code:	8999
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1995
County Code:	41

CHEMETAL (Continued) **S100220650**

Air Basin:	SF
Facility ID:	7773
Air District Name:	BA
SIC Code:	8999
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

M91 **US GEOLOGICAL SURVEY WAREHOUS** **CA San Mateo Co. BI** **S103620606**
SSE **1020 OBRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.166 mi.
876 ft. **Site 5 of 6 in cluster M**

Relative: **Higher**
Actual: **13 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0023002
Prog Element Code:	STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id:	PR0025996
Description:	STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status:	Inactive, non-billable

N92 **LINCOLN WILLOW BUSINESS PARK** **RCRA-SQG** **1000686389**
ENE **978 HAMILTON CT** **FINDS** **CAD983636721**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.166 mi. **CA San Mateo Co. BI**
879 ft. **Site 7 of 19 in cluster N** **CA HAZNET**

Relative: **Lower**
Actual: **9 ft.**

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	LINCOLN WILLOW BUSINESS PARK
Facility address:	978 HAMILTON CT MENLO PARK, CA 94025
EPA ID:	CAD983636721
Mailing address:	101 LINCOLN CENTER DR FOSTER CITY, CA 94404-1167
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

LINCOLN WILLOW BUSINESS PARK (Continued) **1000686389**

Owner/Operator Summary:
Owner/operator name: LINCOLN MENLO IV AND V ASSOCIATES
Owner/operator address: 101 LINCOLN CENTRE DR
FOSTER CITY, CA 94404
Owner/operator country: Not reported
Owner/operator telephone: 415-571-2200
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 05/07/1992
Site name: LINCOLN WILLOW BUSINESS PARK
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002876629

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000686389

LINCOLN WILLOW BUSINESS PARK (Continued) **1000686389**

Registry ID: 110002876629
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002876629

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0027189
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0042876
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0027189
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0042877
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

HAZNET:
Site Name: LINCOLN WILLOW BUSINESS PARK
Year: 1993
GEPAID: CAD983636721
Contact: LINCOLN MENLO IV AND V ASSOCIA
Telephone: 4155712200
Mailing Name: Not reported
Mailing Address: 101 LINCOLN CENTRE DR
Mailing City,St,Zip: FOSTER CITY, CA 944041130
Gen County: Not reported
TSD EPA ID: UTD991301748
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Disposal, Land Fill
Tons: 33.7120000000
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: LINCOLN WILLOW BUSINESS PARK
Year: 1993
GEPAID: CAD983636721
Contact: LINCOLN MENLO IV AND V ASSOCIA
Telephone: 4155712200
Mailing Name: Not reported
Mailing Address: 101 LINCOLN CENTRE DR
Mailing City,St,Zip: FOSTER CITY, CA 944041130
Gen County: Not reported
TSD EPA ID: UT0991301748
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Not reported
Tons: 30.3408000000
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: LINCOLN WILLOW BUSINESS PARK

LINCOLN WILLOW BUSINESS PARK (Continued) **1000686389**

Year:	1993
GEPAID:	CAD983636721
Contact:	LINCOLN MENLO IV AND V ASSOCIA
Telephone:	4155712200
Mailing Name:	Not reported
Mailing Address:	101 LINCOLN CENTRE DR
Mailing City,St,Zip:	FOSTER CITY, CA 944041130
Gen County:	Not reported
TSD EPA ID:	UT0991301748
TSD County:	Not reported
Waste Category:	Contaminated soil from site clean-up
Disposal Method:	Disposal, Land Fill
Tons:	30.3408000000
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

N93 **LINCOLN WILLOW PARCEL F-2** **CA LUST** **S103890676**
ENE **990 HAMILTON** **CA CPS-SLIC** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA DEED**
0.170 mi. **CA San Mateo Co. BI**
896 ft. **Site 8 of 19 in cluster N** **CA HAZNET**
CA HIST CORTESE
Relative: **CA CERS**
Lower

Actual: **9 ft.**

SAN MATEO CO. LUST:

Region:	SAN MATEO
Facility ID:	449049
Facility Status:	9- Case Closed
Global ID:	T0608196771
APN Number:	055440330
Case Type:	SAN MATEO CO. LUST
EDR Link ID:	SAN MATEO CO. LUST

CPS-SLIC:

Site Name:	LINCOLN WILLOW PARCEL F-2
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	09/03/1996
Global Id:	T0608196771
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449049
Latitude:	37.477814
Longitude:	-122.149223
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

DEED:
Envirostor ID: T0608196771

LINCOLN WILLOW PARCEL F-2 (Continued) **S103890676**

Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/28/2015
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Not reported
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996

LINCOLN WILLOW PARCEL F-2 (Continued) **S103890676**

File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

Envirostor ID: T0608196771
Area: Not reported
Sub Area: Not reported
Site Type: SLIC
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 01/23/1996
File Name: Geotracker Land Use/Deed Restrictions

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0045096
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0057726
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0045096
Prog Element Code: 2233
Record Id: PR0057725
Description: GEN 6-25 TONS HAZ WASTE/YR - RCRA
Facility Status: Inactive, non-billable

LINCOLN WILLOW PARCEL F-2 (Continued) **S103890676**

Region: SAN MATEO
Facility ID: FA0045096
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0057724
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

HAZNET:
Site Name: FACEBOOK
Year: 2017
GEPAID: CAL000427994
Contact: KAREN SIEVERSON
Telephone: 6504609327
Mailing Name: Not reported
Mailing Address: 1 HACKER WAY
Mailing City,St,Zip: MENLO PARK, CA 94025
Gen County: San Mateo
TSD EPA ID: CAT000646117
TSD County: Kings
Waste Category: Other inorganic solid waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.0875
Cat Decode: Other inorganic solid waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: San Mateo

HIST CORTESE:
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 41-1165

CERS TANKS:
Site ID: 207629
CERS ID: T0608196771
Site Name: LINCOLN WILLOW PARCEL F-2
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

N94 **FACEBOOK** **RCRA NonGen / NLR** **1024860093**
ENE **990 HAMILTON COURT** **CAL000427994**
1/8-1/4 **MENLO PARK, CA 94025**
0.170 mi.
896 ft. **Site 9 of 19 in cluster N**

Relative: **Lower**

Actual: **9 ft.**

RCRA NonGen / NLR:

Date form received by agency:	05/24/2017
Facility name:	FACEBOOK
Facility address:	990 HAMILTON COURT MENLO PARK, CA 94025
EPA ID:	CAL000427994
Mailing address:	1 HACKER WAY MENLO PARK, CA 94025
Contact:	KAREN SIEVERSON
Contact address:	1 HACKER WAY MENLO PARK, CA 94025
Contact country:	Not reported
Contact telephone:	650-460-9327
Contact email:	KASIEVER@FB.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	TOM WIRTH
Owner/operator address:	1 HACKER WAY MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-391-3750
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	KAREN SIEVERSON
Owner/operator address:	1 HACKER WAY MENLO PARK, CA 94025
Owner/operator country:	Not reported
Owner/operator telephone:	650-460-9327
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No

FACEBOOK (Continued) **1024860093**

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

N95 **MENLO INDUSTRIAL PUMP STATION** **CA San Mateo Co. BI** **S103171368**
ENE **1002 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.173 mi.
912 ft. **Site 10 of 19 in cluster N**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0022483
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0028444
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022483
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0024611
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0022483
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0043968
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

M96 **PARSONS MANUFACTURING CORP** **CA San Mateo Co. BI** **S102268344**
SE **1055 OBRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.174 mi.
919 ft. **Site 6 of 6 in cluster M**

Relative: **Higher**
Actual: **12 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0012616
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040542
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0012616
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT

PARSONS MANUFACTURING CORP (Continued) **S102268344**

Record Id: PR0028793
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0012616
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0004168
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

N97 **ENDOTEX** **CA San Mateo Co. BI** **S103620289**
ENE **1010 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.175 mi.
923 ft. **Site 11 of 19 in cluster N**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0037329
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0054179
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0037329
Prog Element Code: STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id: PR0054177
Description: STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0037329
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0054178
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048436
Prog Element Code: STORES HAZ MAT <6999 GAL, 55999 LB, 2799FT^3
Record Id: PR0066189
Description: STORES HAZ MAT <6999 GAL, 55999 LB, 2799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048436
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0066192
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048436
Prog Element Code: 2352
Record Id: PR0067570
Description: TIER I: TANK STOR CAP =>1,320 & <5,000 GAL

ENDOTEX (Continued) **S103620289**

Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048436
Prog Element Code: 2233
Record Id: PR0066191
Description: GEN 6-25 TONS HAZ WASTE/YR - RCRA
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048436
Prog Element Code: ABOVE GROUND TANK/SPCC
Record Id: PR0066190
Description: ABOVE GROUND TANK/SPCC
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0024220
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0028713
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0024220
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0028714
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

N98 **PACIFIC BIOSCIENCES OF CALIFORNIA INC** **RCRA-LQG** **1010562018**
ENE **1010 HAMILTON CT** **CAR000185785**
1/8-1/4 **MENLO PARK, CA 94025**
0.175 mi.
923 ft. **Site 12 of 19 in cluster N**

Relative:
Lower

Actual:
9 ft.

RCRA-LQG:
Date form received by agency: 02/26/2018
Facility name: PACIFIC BIOSCIENCES OF CALIFORNIA INC
Facility address: 1010 HAMILTON CT
MENLO PARK, CA 94025-0000
EPA ID: CAR000185785
Mailing address: O'BRIEN DRIVE
MENLO PARK, CA 94025
Contact: REBECCA STAGER
Contact address: O'BRIEN DRIVE
MENLO PARK, CA 94025
Contact country: US
Contact telephone: 650-521-8480
Contact email: RSTAGER@PACB.COM
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	PACIFIC BIOSCIENCES OF CA, INC
Owner/operator address:	O'BRIEN DRIVE
	MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	650-521-8480
Owner/operator email:	RSTAGER@PACB.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	03/25/2011
Owner/Op end date:	Not reported
Owner/operator name:	CONOR MEDSYSTEMS
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	05/01/2007
Owner/Op end date:	Not reported
Owner/operator name:	PENINSULA INNOVATION PARTNERS, LLC
Owner/operator address:	HACKER WAY
	MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	650-543-4912
Owner/operator email:	TOMWIRTH@FB.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	04/30/2015
Owner/Op end date:	Not reported
Owner/operator name:	WILLOW PARK HOLDING CO LLC
Owner/operator address:	4000 E 3RD AVE STE 600
	FOSTER CITY, CA 94404
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

Owner/Operator Type: Owner
Owner/Op start date: 01/01/1998
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 211
. Waste name: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 511
. Waste name: Empty pesticide containers 30 gallons or more

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D018
. Waste name: BENZENE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P048
. Waste name: 2,4-DINITROPHENOL (OR) PHENOL, 2,4-DINITRO-

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U019
. Waste name: BENZENE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U068
. Waste name: METHANE, DIBROMO- (OR) METHYLENE BROMIDE

. Waste code: U112
. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U133
. Waste name: HYDRAZINE (R,T)

. Waste code: U144
. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U196
. Waste name: PYRIDINE

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

. Waste code: U211
. Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

Historical Generators:
Date form received by agency: 04/25/2011
Site name: PACIFIC BIOSCIENCES OF CALIFORNIA INC
Classification: Small Quantity Generator

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D026
. Waste name: CRESOL

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: 551
. Waste name: Laboratory waste chemicals

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 181
. Waste name: Other inorganic solid waste

Date form received by agency: 07/12/2007
Site name: CONOR MEDSYSTEMS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D002
. Waste name: CORROSIVE WASTE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 11/18/2016
Date achieved compliance: 01/31/2017
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport

PACIFIC BIOSCIENCES OF CALIFORNIA INC (Continued) **1010562018**

Date violation determined: 11/18/2016
Date achieved compliance: 01/31/2017
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 05/25/2017
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/25/2017
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/18/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/18/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 01/31/2017
Evaluation lead agency: State

Evaluation date: 11/18/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/31/2017
Evaluation lead agency: State

Evaluation date: 06/07/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

O99 **C S BIO CO** **RCRA-LQG** **1000181792**
SE **20 KELLY CT** **TRIS** **9402WCSBCX2KELL**
1/8-1/4 **MENLO PARK, CA 94025** **FINDS**
0.176 mi. **ECHO**
930 ft. **Site 3 of 6 in cluster O**

Relative:
Higher

Actual:
12 ft.

RCRA-LQG:

Date form received by agency:	10/22/2018
Facility name:	C S BIO CO
Facility address:	20 KELLY CT. MENLO PARK, CA 94025-1418
EPA ID:	CAD982053183
Mailing address:	KELLY CT. MENLO PARK, CA 94025-1418
Contact:	ELLEN L ACKERMAN
Contact address:	KELLY CT. MENLO PARK, CA 94025-1418
Contact country:	US
Contact telephone:	650-508-8018
Contact email:	ELLEN@GREENENVIRONMENT.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	C S BIO
Owner/operator address:	KELLY CT. MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	650-322-1111
Owner/operator email:	JCHANG@CSBIO.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	07/01/2004
Owner/Op end date:	Not reported

Owner/operator name:	C S BIO CO
Owner/operator address:	KELLY CT. MENLO PARK, CA 94025
Owner/operator country:	US
Owner/operator telephone:	650-322-1111
Owner/operator email:	JCHANG@CSBIO.COM
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator

C S BIO CO (Continued) **1000181792**

Owner/Op start date: 07/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D002
. Waste name: CORROSIVE WASTE

C S BIO CO (Continued) **1000181792**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 741
. Waste name: Liquids with halogenated organic compounds > 1000 mg/l

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 221
. Waste name: Waste oil and mixed oil

Historical Generators:
Date form received by agency: 01/28/2016
Site name: C S BIO CO
Classification: Large Quantity Generator

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D038
. Waste name: PYRIDINE

C S BIO CO (Continued) **1000181792**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: 741
. Waste name: Liquids with halogenated organic compounds > 1000 mg/l

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

Date form received by agency: 03/16/2012
Site name: C S BIO CO.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 04/01/2010
Site name: CS BIO CO.
Classification: Large Quantity Generator

. Waste code: 741
. Waste name: Liquids with halogenated organic compounds > 1000 mg/l

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

C S BIO CO (Continued) **1000181792**

MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D001
. Waste name: IGNITABLE WASTE

Date form received by agency: 03/28/2008
Site name: CS BIO CO.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

C S BIO CO (Continued) **1000181792**

Date form received by agency: 07/12/2004
Site name: CS BIO CO
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 10/16/1987
Site name: ELECTROCHIMICAL CORP
Classification: Small Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 333221.1

Waste code: D038
Waste name: PYRIDINE
Amount (Lbs): 91221.1

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 153621.1

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT

C S BIO CO (Continued) **1000181792**

NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 153621.1

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 153621.1

Violation Status: No violations found

TRIS:

Click this hyperlink while viewing on your computer to access
3 additional US_TRIS: record(s) in the EDR Site Report.

FINDS:

Registry ID: 110002790141

Environmental Interest/Information System
US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

OSHA ESTABLISHMENT

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

STATE MASTER

Click this hyperlink while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000181792
Registry ID: 110002790141
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002790141

O100 **C S BIO CO** **CA San Mateo Co. BI** **S106982309**
SE **20 KELLY COURT** **CA NPDES** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CIWQS**
0.176 mi.
930 ft. **Site 4 of 6 in cluster O**

Relative:
Higher

Actual:
12 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	PERMIT BY RULE (PBR)
Record Id:	PR0070591
Description:	PERMIT BY RULE (PBR)
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	2236
Record Id:	PR0049703
Description:	GEN 251-500 TONS HAZ WASTE/YR - RCRA
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0049704
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	STORES HAZ MAT <15999GAL, 111999LB, 5599FT^3
Record Id:	PR0049702
Description:	STORES HAZ MAT <15999GAL, 111999LB, 5599CF
Facility Status:	Active, billable

NPDES:

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41C368010
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	09/30/2015
Operator Name:	C S Bio Co
Operator Address:	20 Kelly Court

C S BIO CO (Continued) **S106982309**

Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	441833
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C368010
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/28/2015
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	10/14/2013
Processed Date:	10/17/2013
Status:	Terminated
Status Date:	09/30/2015
Place Size:	2.29
Place Size Unit:	Acres
Contact:	Jason Chang
Contact Title:	Not reported
Contact Phone:	650-322-1111
Contact Phone Ext:	Not reported
Contact Email:	zoe.liang@csbio.com
Operator Name:	C S Bio Co
Operator Address:	20 Kelly Court
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Jason Chang
Operator Contact Title:	Not reported
Operator Contact Phone:	650-322-1111
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	zoe.liang@csbio.com
Operator Type:	Private Business
Developer:	C S Bio Co
Developer Address:	20 Kelly Court
Developer City:	Menlo Park
Developer State:	California
Developer Zip:	94025
Developer Contact:	Jason Chang
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Y
Constype Below Ground Ind:	N

C S BIO CO (Continued) **S106982309**

Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	Y
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	Y
Receiving Water Name:	Not reported
Certifier:	Jason Chang
Certifier Title:	Director of Operations
Certification Date:	14-OCT-13
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	441833
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C368010
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/17/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/28/2015
Discharge Name:	C S Bio Co
Discharge Address:	20 Kelly Court
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported

C S BIO CO (Continued) **S106982309**

Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Agency:	C S Bio Co
Agency Address:	20 Kelly Court, Menlo Park, CA 94025
Place/Project Type:	Construction - Above Ground, Reconstruction
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 41C368010
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	10/17/2013

C S BIO CO (Continued) **S106982309**

Termination Date:	08/28/2015
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.475595
Longitude:	-122.149562

O101 **C S BIO** **CA CERS HAZ WASTE** **S121737024**
SE **20 KELLY CT** **CA CERS** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.176 mi.
930 ft. **Site 5 of 6 in cluster O**

Relative: **Higher**
Actual: **12 ft.**

CERS HAZ WASTE:

Site ID:	100927
CERS ID:	10069345
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/10/2018. Maps incomplete, difficult to read, and inconsistent with location information in the inventory. Ensure maps show local streets, storm drains, etc., are legible (unlike the CAD drawings), and use the same location names used in the chemical inventory. Some of the maps are duplicates and some are CAD drawings with little utility. Please place all information on a single map of each floor of the building. Also, the legend and hazardous waste locations do not appear in the pdf version of the HMBP after consolidation with the forms. Please ensure any layers print out in a single pdf document before re-uploading the maps within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/10/2018. Incomplete information for some hazardous waste. Ensure chemical name field is properly completed. For example, in addition to "Purification Waste," name the chemicals (dichloromethane) or class of chemicals (solvents) predominantly found in the waste.
Violation Division:	San Mateo County Environmental Health

C S BIO (Continued) **S121737024**

Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	05-16-2014
Citation:	22 CCR 12 66262.34(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(a)
Violation Description:	Failure to obtain a permit or grant of interim status to accumulate hazardous waste longer than 90 days.
Violation Notes:	Returned to compliance on 06/11/2014. Facility had one container over the 90 day limit. However all other containers throughout the facility were in compliance with accumulation times. Advised facility to be diligent during hazardous waste inspections to not exceed accumulation times or this can result in a serious violation.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 15 66265.173 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 12/07/2015. All waste containers must be sealed and secured unless being actively filled by an individual. Waste containers were observed to not be closed tightly. The use of foil and parafin or plastic was found being used to secure container openings in the QC labs and GMP Production suites (pictures taken). Correct this immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 04/12/2018. Business unable to demonstrate initial and annual emergency response and spill cleanup training to all staff. Please ensure all are training and send verification to the inspection within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015

C S BIO (Continued) **S121737024**

Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 11/23/2015. All waste containers must be labeled compliantly. Numerous solvent containers (carboys) and lab debris receptacles throughout the Main R&D lab were found to be mislabeled (pictures taken). Correct this immediately and provide verification to the County within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 04-18-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: declined HMBP submittal due to missing EHS information on inventory and missing annual waste amounts on HMBP for liquid solvent waste.
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-02-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2015
Violations Found: No
Eval Type: Routine done by local agency

C S BIO (Continued) **S121737024**

Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-05-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: see comments
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-21-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-04-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Onsite to follow-up on VOC emissions and open HW container during loading and product collection processes.PID worked and showed ND at waste lines and in process rm w appropriate source and setting. Containers were observed being closed after elution of product began. Elution ended after 20-30 min at which pt the HW container was opened and the tube reconnected to the adaptor cap. Accepted.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-13-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: talking with DTSC and C S BIO in the afternoon regarding this issue.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-31-2018

C S BIO (Continued) **S121737024**

Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-14-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-14-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-20-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-19-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-19-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported

C S BIO (Continued) **S121737024**

Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-20-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-23-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-14-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: prep
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-03-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Onsite to review corrective actions associated with open hazardous waste containers in synthesis and air emissions compliance activities.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG

C S BIO (Continued) **S121737024**

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-12-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-31-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-20-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: corrective action documents reviewed and corrected violatioksn shown
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-09-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-21-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

C S BIO (Continued) **S121737024**

Eval Date: 12-22-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Solvent waste 548K pounds annual Solvent (potent peptide) 8,400 pounds annual Lab debris 12,475 pounds annual Generated on a irregular basis as business needs dictate.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 100927
Site Name: C S BIO
Site Address: 20 KELLY CT
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 05-16-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HWLQG
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 20 KELLY CT
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: C S BIO
Entity Title: Not reported
Affiliation Address: 20 KELLY
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94025
Affiliation Phone: (650) 322-1111

Affiliation Type Desc: Operator
Entity Name: CSBio
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 322-1111

Affiliation Type Desc: Parent Corporation

C S BIO (Continued) **S121737024**

Entity Name:	C S BIO
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Ellen Ackerman
Entity Title:	Not reported
Affiliation Address:	20 Kelly Court
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Document Preparer
Entity Name:	Kevin Yue
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jason Chang
Entity Title:	Chief Operating Officer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Site ID:	100927
CERS ID:	10069345
CERS Description:	RCRA LQ HW Generator

Violations:

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018

C S BIO (Continued) **S121737024**

Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/10/2018. Maps incomplete, difficult to read, and inconsistent with location information in the inventory. Ensure maps show local streets, storm drains, etc., are legible (unlike the CAD drawings), and use the same location names used in the chemical inventory. Some of the maps are duplicates and some are CAD drawings with little utility. Please place all information on a single map of each floor of the building. Also, the legend and hazardous waste locations do not appear in the pdf version of the HMBP after consolidation with the forms. Please ensure any layers print out in a single pdf document before re-uploading the maps within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/10/2018. Incomplete information for some hazardous waste. Ensure chemical name field is properly completed. For example, in addition to "Purification Waste," name the chemicals (dichloromethane) or class of chemicals (solvents) predominantly found in the waste.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	05-16-2014
Citation:	22 CCR 12 66262.34(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(a)
Violation Description:	Failure to obtain a permit or grant of interim status to accumulate hazardous waste longer than 90 days.
Violation Notes:	Returned to compliance on 06/11/2014. Facility had one container over the 90 day limit. However all other containers throughout the facility were in compliance with accumulation times. Advised facility to be diligent during hazardous waste inspections to not exceed accumulation times or this can result in a serious violation.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 15 66265.173 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.173
Violation Description:	Failure to properly close hazardous waste containers when not in

C S BIO (Continued) **S121737024**

	active use.
Violation Notes:	Returned to compliance on 12/07/2015. All waste containers must be sealed and secured unless being actively filled by an individual. Waste containers were observed to not be closed tightly. The use of foil and parafin or plastic was found being used to secure container openings in the QC labs and GMP Production suites (pictures taken). Correct this immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 04/12/2018. Business unable to demonstrate initial and annual emergency response and spill cleanup training to all staff. Please ensure all are training and send verification to the inspection within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 11/23/2015. All waste containers must be labeled compliantly. Numerous solvent containers (carboys) and lab debris receptacles throughout the Main R&D lab were found to be mislabeled (pictures taken). Correct this immediately and provide verification to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	04-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	declined HMBP submittal due to missing EHS information on inventory and missing annual waste amounts on HMBP for liquid solvent waste.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

C S BIO (Continued) **S121737024**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-02-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-05-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: see comments
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-21-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-04-2018
Violations Found: No

C S BIO (Continued) **S121737024**

Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to follow-up on VOC emissions and open HW container during loading and product collection processes.PID worked and showed ND at waste lines and in process rm w appropriate source and setting. Containers were observed being closed after elution of product began. Elution ended after 20-30 min at which pt the HW container was opened and the tube reconnected to the adaptor cap. Accepted.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-13-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	talking with DTSC and C S BIO in the afternoon regarding this issue.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-14-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown

C S BIO (Continued) **S121737024**

Eval Date: 03-20-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-19-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-19-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-20-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-23-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency

C S BIO (Continued) **S121737024**

Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	prep
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to review corrective actions associated with open hazardous waste containers in synthesis and air emissions compliance activities.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-12-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-31-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-20-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	corrective action documents reviewed and corrected violatioksn shown
Eval Division:	San Mateo County Environmental Health

C S BIO (Continued) **S121737024**

Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-09-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-21-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Solvent waste 548K pounds annual Solvent (potent peptide) 8,400 pounds annual Lab debris 12,475 pounds annual Generated on a irregular basis as business needs dictate.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 100927
Site Name: C S BIO
Site Address: 20 KELLY CT
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 05-16-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HWLQG
Enf Action Source: CERS

Affiliation:

C S BIO (Continued) **S121737024**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	20 KELLY CT
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	C S BIO
Entity Title:	Not reported
Affiliation Address:	20 KELLY
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 322-1111

Affiliation Type Desc:	Operator
Entity Name:	CSBio
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 322-1111

Affiliation Type Desc:	Parent Corporation
Entity Name:	C S BIO
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Ellen Ackerman
Entity Title:	Not reported
Affiliation Address:	20 Kelly Court
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported

C S BIO (Continued) **S121737024**

Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Document Preparer
Entity Name: Kevin Yue
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Jason Chang
Entity Title: Chief Operating Officer
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:
Site ID: 100927
CERS ID: 10069345
Site Name: C S BIO
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 100927
Site Name: C S BIO
Violation Date: 03-14-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 05/10/2018. Maps incomplete, difficult to read, and inconsistent with location information in the inventory. Ensure maps show local streets, storm drains, etc., are legible (unlike the CAD drawings), and use the same location names used in the chemical inventory. Some of the maps are duplicates and some are CAD drawings with little utility. Please place all information on a single map of each floor of the building. Also, the legend and hazardous waste locations do not appear in the pdf version of the HMBP after consolidation with the forms. Please ensure any layers print out in a single pdf document before re-uploading the maps within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 100927
Site Name: C S BIO
Violation Date: 03-14-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

C S BIO (Continued) **S121737024**

Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/10/2018. Incomplete information for some hazardous waste. Ensure chemical name field is properly completed. For example, in addition to "Purification Waste," name the chemicals (dichloromethane) or class of chemicals (solvents) predominantly found in the waste.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	05-16-2014
Citation:	22 CCR 12 66262.34(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(a)
Violation Description:	Failure to obtain a permit or grant of interim status to accumulate hazardous waste longer than 90 days.
Violation Notes:	Returned to compliance on 06/11/2014. Facility had one container over the 90 day limit. However all other containers throughout the facility were in compliance with accumulation times. Advised facility to be diligent during hazardous waste inspections to not exceed accumulation times or this can result in a serious violation.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 15 66265.173 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 12/07/2015. All waste containers must be sealed and secured unless being actively filled by an individual. Waste containers were observed to not be closed tightly. The use of foil and parafin or plastic was found being used to secure container openings in the QC labs and GMP Production suites (pictures taken). Correct this immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 04/12/2018. Business unable to demonstrate initial and annual emergency response and spill cleanup training to

C S BIO (Continued) **S121737024**

all staff. Please ensure all are training and send verification to the inspection within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 100927
Site Name: C S BIO
Violation Date: 11-19-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 11/23/2015. All waste containers must be labeled compliantly. Numerous solvent containers (carboys) and lab debris receptacles throughout the Main R&D lab were found to be mislabeled (pictures taken). Correct this immediately and provide verification to the County within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HWLQG
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 04-18-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: declined HMBP submittal due to missing EHS information on inventory and missing annual waste amounts on HMBP for liquid solvent waste.
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-02-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency

C S BIO (Continued) **S121737024**

Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-05-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	see comments
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-21-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-04-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to follow-up on VOC emissions and open HW container during loading and product collection processes.PID worked and showed ND at waste lines and in process rm w appropriate source and setting. Containers were observed being closed after elution of product began. Elution ended after 20-30 min at which pt the HW container was opened and the tube reconnected to the adaptor cap. Accepted.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-13-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	talking with DTSC and C S BIO in the afternoon regarding this issue.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-14-2015

C S BIO (Continued) **S121737024**

Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-20-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported

C S BIO (Continued) **S121737024**

Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-19-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-20-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-23-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-14-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: prep
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

C S BIO (Continued) **S121737024**

Eval General Type: Other/Unknown
Eval Date: 07-03-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Onsite to review corrective actions associated with open hazardous waste containers in synthesis and air emissions compliance activities.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-12-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-31-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-20-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: corrective action documents reviewed and corrected violatioksn shown
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-09-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: PBR
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-05-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-21-2016

C S BIO (Continued) **S121737024**

Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Solvent waste 548K pounds annual Solvent (potent peptide) 8,400 pounds annual Lab debris 12,475 pounds annual Generated on a irregular basis as business needs dictate.
Eval Division: San Mateo County Environmental Health
Eval Program: HWLQG
Eval Source: CERS

Enforcement Action:
Site ID: 100927
Site Name: C S BIO
Site Address: 20 KELLY CT
Site City: MENLO PARK
Site Zip: 94025
Enf Action Date: 05-16-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HWLQG
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 20 KELLY CT
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: C S BIO
Entity Title: Not reported
Affiliation Address: 20 KELLY
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94025
Affiliation Phone: (650) 322-1111

Affiliation Type Desc: Operator
Entity Name: CSBio
Entity Title: Not reported

C S BIO (Continued) **S121737024**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Parent Corporation
Entity Name:	C S BIO
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Ellen Ackerman
Entity Title:	Not reported
Affiliation Address:	20 Kelly Court
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Document Preparer
Entity Name:	Kevin Yue
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jason Chang
Entity Title:	Chief Operating Officer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

N102 **CONOR MEDSYSTEMS** **CA San Mateo Co. BI** **S123182201**
ENE **1003 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.176 mi.
930 ft. **Site 13 of 19 in cluster N**

Relative: **Lower**

Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0033655
Prog Element Code:	SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id:	PR0052444
Description:	SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status:	Inactive, non-billable

N103 **DELTAGEN INC** **CA CHMIRS** **S105091961**
ENE **1003 HAMILTON** **CA San Mateo Co. BI** **N/A**
1/8-1/4 **MENLO PARK, CA 94404**
0.176 mi.
930 ft. **Site 14 of 19 in cluster N**

Relative: **Lower**

Actual: **8 ft.**

CHMIRS:

OES Incident Number:	8-2716
OES notification:	06/12/1998
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported

DELTAGEN INC (Continued) **S105091961**

Year:	1998
Agency:	CO OES
Incident Date:	6/12/199812:00:00 AM
Admin Agency:	San Mateo County Environmental Health
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	NITRIC ACID
Gallons:	13
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	6
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	WORKERS HEARD NOISE AND SAW SUBSTANCE ON FLOOR. INCIDENT REPORTED.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0027396
Prog Element Code:	LARGE QTY GEN >200 LB/MO OFFSITE TREATMENT
Record Id:	PR0043420
Description:	LQG OFF-SITE TREATMENT >200 LB/MO
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0028223
Prog Element Code:	GEN 6-25 TONS HAZ WASTE/YR
Record Id:	PR0051616
Description:	GEN 6-25 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0028223
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0051617
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0028223
Prog Element Code:	SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id:	PR0046667
Description:	SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status:	Inactive, non-billable

DELTAGEN INC (Continued) **S105091961**

Region: SAN MATEO
Facility ID: FA0028223
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0051615
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0024770
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0030124
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0024770
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0030125
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025672
Prog Element Code: GEN 6-25 TONS HAZ WASTE/YR
Record Id: PR0035952
Description: GEN 6-25 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025672
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040649
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025672
Prog Element Code: STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id: PR0034652
Description: STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status: Inactive, non-billable

N104 **CONOR MEDSYSTEMS, INC.** **RCRA-LQG** **1010313874**
ENE **1003 HAMILTON CT** **CAR000179176**
1/8-1/4 **MENLO PARK, CA 94025**
0.176 mi.
930 ft. **Site 15 of 19 in cluster N**

Relative: RCRA-LQG:
Lower
Date form received by agency: 02/26/2008
Actual: Facility name: CONOR MEDSYSTEMS, INC.
8 ft. Facility address: 1003 HAMILTON CT
MENLO PARK, CA 94025
EPA ID: CAR000179176
Contact: DAVE HAUGAARD
Contact address: Not reported
Not reported
Contact country: US

CONOR MEDSYSTEMS, INC. (Continued) **1010313874**

Contact telephone: 650-614-4139
Contact email: DHAUGAAR@CNRUS.JNJ.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: WILLOW PARK HOLDING CO, LLC
Owner/operator address: CARE OF LEGACY PARTNERS INC 4000 E 3RD AVE STE 600
FOSTER CITY, CA 94404
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1998
Owner/Op end date: Not reported

Owner/operator name: CONOR MEDSYSTEMS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/12/2004
Owner/Op end date: Not reported

Owner/operator name: WILLOW PARK HOLDING CO, LLC
Owner/operator address: 4000 E 3RD AVE, SUITE 600
FOSTER CITY, CA
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1998
Owner/Op end date: Not reported

CONOR MEDSYSTEMS, INC. (Continued) **1010313874**

Owner/operator name: CONOR MEDSYSTEMS, INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/12/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 07/12/2007
Site name: CONOR MEDSYSTEMS
Classification: Large Quantity Generator

CONOR MEDSYSTEMS, INC. (Continued) **1010313874**

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 10/04/2006
Site name: CONOR MEDSYSTEMS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

N105 **PACIFIC BIOSCIENCES OF CA INC** **CA San Mateo Co. BI** **S110762199**
ENE **1005 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.177 mi.
934 ft. **Site 16 of 19 in cluster N**

Relative: San Mateo Co. BI:
Lower
Actual: Region: SAN MATEO
8 ft. Facility ID: FA0048912
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0066762
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

PACIFIC BIOSCIENCES OF CA INC (Continued) **S110762199**

Region: SAN MATEO
Facility ID: FA0048912
Prog Element Code: STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id: PR0066760
Description: STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048912
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0066761
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0048912
Prog Element Code: 2352
Record Id: PR0080337
Description: TIER I: TANK STOR CAP =>1,320 & <5,000 GAL
Facility Status: Inactive, non-billable

N106 **CALYDON** **CA San Mateo Co. BI** **S100944544**
ENE **1014 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.177 mi.
937 ft. **Site 17 of 19 in cluster N**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0022632
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0028923
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022632
Prog Element Code: SMALL QTY GEN (1-199 LB/MO) ON-SITE TREATMENT
Record Id: PR0027474
Description: SQG ON-SITE TREATMENT (1-199 LB/MO)
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022632
Prog Element Code: STORES RADIOACTIVE MATERIALS
Record Id: PR0027490
Description: STORES RADIOACTIVE MATERIALS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025311
Prog Element Code: LARGE QTY GEN >200 LB/MO OFFSITE TREATMENT
Record Id: PR0033774
Description: LQG OFF-SITE TREATMENT >200 LB/MO
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025311

CALYDON (Continued) **S100944544**

Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0033708
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025311
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0043614
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025311
Prog Element Code: COMMON STORAGE (1-199 LBS/MO.)
Record Id: PR0034798
Description: SQG COMMON STORAGE AREA FAC (1-199 LB/MO)
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0025311
Prog Element Code: STORES RADIOACTIVE MATERIALS
Record Id: PR0034037
Description: STORES RADIOACTIVE MATERIALS
Facility Status: Inactive, non-billable

N107 **ANOSYS, INC.** **CA San Mateo Co. BI** **S123181560**
ENE **1014 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.177 mi.
937 ft. **Site 18 of 19 in cluster N**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0027394
Prog Element Code: LARGE QTY GEN >200 LB/MO OFFSITE TREATMENT
Record Id: PR0043417
Description: LQG OFF-SITE TREATMENT >200 LB/MO
Facility Status: Inactive, non-billable

Q108 **ALLEN EQUIPMENT** **CA SWEEPS UST** **S101622976**
NW **755 HAMILTON AVE** **CA FID UST** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.180 mi.
952 ft. **Site 1 of 4 in cluster Q**

Relative: **Lower**
Actual: **9 ft.**

SWEEPS UST:
Status: Not reported
Comp Number: 440065
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-440065-000001

ALLEN EQUIPMENT (Continued) **S101622976**

Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 440065
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-440065-000002
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 41000053
Regulated By: UTNKI
Regulated ID: CAD000519
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4153236155
Mail To: Not reported
Mailing Address: 755 HAMILTON AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: MENLO PARK 94025
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

Q109 **ALLEN EQUIPMENT COMPANY** **CA LUST** **S104493800**
NW **755 HAMILTON** **CA HAZNET** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.180 mi.
952 ft. **Site 2 of 4 in cluster Q**

Relative:
Lower

Actual:
9 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 440007
How Discovered: OM
Leak Cause: Unknown

ALLEN EQUIPMENT COMPANY (Continued) **S104493800**

Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HAZNET:
Site Name: ALLEN EQUIPMENT CO
Year: 2013
GEPAID: CAL000263572
Contact: CARRIE PETERSON
Telephone: 6503236155
Mailing Name: Not reported
Mailing Address: 755 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAD980887418
TSD County: Alameda
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.038
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

Site Name: ALLEN EQUIPMENT CO
Year: 2013
GEPAID: CAL000263572
Contact: CARRIE PETERSON
Telephone: 6503236155
Mailing Name: Not reported
Mailing Address: 755 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: San Mateo
TSD EPA ID: CAD980887418
TSD County: Alameda
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.4587
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

Site Name: ALLEN EQUIPMENT CO
Year: 2013
GEPAID: CAL000263572
Contact: CARRIE PETERSON
Telephone: 6503236155
Mailing Name: Not reported
Mailing Address: 755 HAMILTON AVE
Mailing City,St,Zip: MENLO PARK, CA 940250000

ALLEN EQUIPMENT COMPANY (Continued) **S104493800**

Gen County:	San Mateo
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.1251
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported
Site Name:	ALLEN EQUIPMENT CO
Year:	2013
GEPAID:	CAL000263572
Contact:	CARRIE PETERSON
Telephone:	6503236155
Mailing Name:	Not reported
Mailing Address:	755 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.025
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

Q110 **ALLEN EQUIP COMPANY** **CA HIST UST** **U001594171**
NW **755 HAMILTON AVE** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.180 mi.
952 ft. **Site 3 of 4 in cluster Q**

Relative: **Lower**

Actual: **9 ft.**

HIST UST:

File Number:	0002BB74
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002BB74.pdf
Region:	STATE
Facility ID:	00000065860
Facility Type:	Other
Other Type:	RENTAL EQUIP CO.
Contact Name:	Not reported
Telephone:	4153236155
Owner Name:	A.L.H. CORPORATION
Owner Address:	755 HAMILTON AVE.
Owner City,St,Zip:	MENLO PARK, CA 94025
Total Tanks:	0002
Tank Num:	001
Container Num:	1
Year Installed:	1965
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	10

ALLEN EQUIP COMPANY (Continued) **U001594171**

Tank Num:	002
Container Num:	2
Year Installed:	1965
Tank Capacity:	00000550
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

Q111 **ALLEN EQUIPMENT COMPANY** **CA LUST** **S103892609**
NW **755 HAMILTON AVENUE** **CA San Mateo Co. BI** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA HIST CORTESE**
0.180 mi.
952 ft. **Site 4 of 4 in cluster Q**

Relative: **Lower**

Actual: **9 ft.**

LUST:

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100013
Global Id:	T0608100013
Latitude:	37.4794856393517
Longitude:	-122.155523300171
Status:	Completed - Case Closed
Status Date:	03/12/1996
Case Worker:	Not reported
RB Case Number:	41-0013
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	440007
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0608100013
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608100013
Action Type:	Other
Date:	04/07/1985
Action:	Leak Reported

Global Id:	T0608100013
Action Type:	Other
Date:	04/07/1985
Action:	Leak Discovery

Global Id:	T0608100013
Action Type:	ENFORCEMENT

ALLEN EQUIPMENT COMPANY (Continued) **S103892609**

Date: 11/15/1989
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608100013
Status: Completed - Case Closed
Status Date: 03/12/1996

Global Id: T0608100013
Status: Open - Case Begin Date
Status Date: 04/07/1985

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440007
Facility Status: 9- Case Closed
Global ID: T0608100013
APN Number: 055397010
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0010081
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0022555
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0002764
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0011477
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0002764
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040514
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0002764
Prog Element Code: STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id: PR0004135
Description: STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status: Inactive, non-billable

HIST CORTESE:
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA

ALLEN EQUIPMENT COMPANY (Continued) **S103892609**

Reg Id: 41-0013

N112 **PIXTERRA, INC** **CA San Mateo Co. BI** **S106035183**
ENE **1020 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.182 mi.
959 ft. **Site 19 of 19 in cluster N**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0027966
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0045956
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0027966
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0045958
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0027966
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0045957
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

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113 **MPK 20** **CA San Mateo Co. BI** **S113880860**
NNW **1 FACEBOOK** **CA NPDES** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CIWQS**
0.184 mi.
974 ft.

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0057642
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0079971
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Active, exempt from billing

Region: SAN MATEO
Facility ID: FA0057642
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0079972
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

NPDES:
Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported

MPK 20 (Continued) **S113880860**

Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41C365029
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	04/22/2015
Operator Name:	Giant Properties LLC
Operator Address:	1 Hacker Way
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	432499
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C365029
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/09/2012
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/21/2015
Discharge Name:	Giant Properties LLC
Discharge Address:	1 Hacker Way
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported

MPK 20 (Continued) **S113880860**

Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	432499
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C365029
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/21/2015
Discharge Name:	Not reported

MPK 20 (Continued) **S113880860**

Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	11/09/2012
Processed Date:	11/09/2012
Status:	Terminated
Status Date:	04/22/2015
Place Size:	22.12
Place Size Unit:	Acres
Contact:	Steve Tsuruoka
Contact Title:	Project Manager
Contact Phone:	650-796-8973
Contact Phone Ext:	Not reported
Contact Email:	osomoza@bkf.com
Operator Name:	Giant Properties LLC
Operator Address:	1 Hacker Way
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Steve Tsuruoka
Operator Contact Title:	Not reported
Operator Contact Phone:	650-796-8973
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	s.tsuruoka@fb.com
Operator Type:	Private Business
Developer:	Facebook
Developer Address:	1 Hacker Way
Developer City:	Menlo Park
Developer State:	California
Developer Zip:	94025
Developer Contact:	Steve Tsuruoka
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	650-796-8973
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	Y
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Steve Tsuruoka
Certifier Title:	Project Manager
Certification Date:	09-NOV-12

MPK 20 (Continued) **S113880860**

Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

CIWQS:
Agency: Giant Properties LLC
Agency Address: 1 Hacker Way, Menlo Park, CA 94025
Place/Project Type: Construction - Reconstruction
SIC/NAICS: Not reported
Region: 2
Program: CONSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 2 41C365029
NPDES Number: CAS000002
Adoption Date: Not reported
Effective Date: 11/09/2012
Termination Date: 04/21/2015
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.48104
Longitude: -122.1544

R114 **MEMBRANE TECHNOLOGY & RESEARCH** **RCRA-SQG** **1000164600**
ENE **1030 HAMILTON COURT** **FINDS** **CAD981573421**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.188 mi.
995 ft. **Site 1 of 9 in cluster R**

Relative: **Lower**
Actual: **9 ft.**

RCRA-SQG:
Date form received by agency: 09/26/1986
Facility name: MEMBRANE TECHNOLOGY & RESEARCH
Facility address: 1030 HAMILTON COURT
MENLO PARK, CA 94025
EPA ID: CAD981573421
Mailing address: HAMILTON COURT
MENLO PARK, CA 94025
Contact: ENVIRONMENTAL MANAGER
Contact address: 1030 HAMILTON COURT
MENLO PARK, CA 94025
Contact country: US
Contact telephone: 415-328-2228
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

MEMBRANE TECHNOLOGY & RESEARCH (Continued) **1000164600**

Owner/Operator Summary:

Owner/operator name:	RICHARD BAKER
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002719201

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MEMBRANE TECHNOLOGY & RESEARCH (Continued) **1000164600**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000164600
Registry ID: 110002719201
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002719201

R115 **OMNI PV INC** **CA San Mateo Co. BI** **S100943366**
ENE **1030 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.188 mi.
995 ft. **Site 2 of 9 in cluster R**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0046446
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0063172
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0046446
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0063173
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0046446
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0063171
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0015319
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0004180
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0015319
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040553
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0015319
Prog Element Code: CONDITIONAL AUTHORIZED (CA)
Record Id: PR0050036
Description: CONDITIONAL AUTHORIZED (CA)
Facility Status: Inactive, non-billable

OMNI PV INC (Continued) **S100943366**

Region: SAN MATEO
Facility ID: FA0015319
Prog Element Code: CONDITIONAL AUTHORIZED (CA)
Record Id: PR0037476
Description: CONDITIONAL AUTHORIZED (CA)
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0015319
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0011517
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

R116 **DEJA QS CAFE** **CA San Mateo Co. BI** **S123179193**
ENE **1038 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.194 mi.
1024 ft. **Site 3 of 9 in cluster R**

Relative:
Lower

Actual:
9 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0000492
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041863
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

O117 **LINEAR OPTIONS** **RCRA NonGen / NLR** **1004676035**
SE **1 KELLY CT** **FINDS** **CAR000080119**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.194 mi. **CA San Mateo Co. BI**
1025 ft. **Site 6 of 6 in cluster O** **CA HAZNET**

Relative:
Higher

Actual:
12 ft.

RCRA NonGen / NLR:
Date form received by agency: 05/07/2009
Facility name: LINEAR OPTIONS
Facility address: 1 KELLY CT
MENLO PARK, CA 94025
EPA ID: CAR000080119
Contact: PATRICK V COLLINS
Contact address: 1 KELLY CT
MENLO PARK, CA 94025
Contact country: US
Contact telephone: 650-833-1800
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: PATRICK COLLINS
Owner/operator address: 1 KELLY CT
MENLO PARK, CA 94025
Owner/operator country: Not reported
Owner/operator telephone: 650-833-1800

LINEAR OPTIONS (Continued) **1004676035**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 08/10/2000
Site name: LINEAR OPTIONS
Classification: Small Quantity Generator

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110002941782

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LINEAR OPTIONS (Continued) **1004676035**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1004676035
Registry ID: 110002941782
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002941782

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0022911
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040612
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022911
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0025790
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022911
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0025791
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

HAZNET:
Site Name: LINEAR OPTIONS
Year: 2011
GEPAID: CAR000080119
Contact: PATRICK V COLLINS/VP
Telephone: 6508331800
Mailing Name: Not reported
Mailing Address: 1 KELLY CT
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: CAD980884183
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.919
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: LINEAR OPTIONS
Year: 2010
GEPAID: CAR000080119
Contact: PATRICK V COLLINS/VP
Telephone: 6508331800

LINEAR OPTIONS (Continued) **1004676035**

Mailing Name: Not reported
Mailing Address: 792 DURHAM DAYTON HWY
Mailing City,St,Zip: DURHAM, CA 959389519
Gen County: Not reported
TSD EPA ID: CAD980884183
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 9.102
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: LINEAR OPTIONS
Year: 2010
GEPAID: CAR000080119
Contact: PATRICK V COLLINS/VP
Telephone: 6508331800
Mailing Name: Not reported
Mailing Address: 792 DURHAM DAYTON HWY
Mailing City,St,Zip: DURHAM, CA 959389519
Gen County: Not reported
TSD EPA ID: NVD980895338
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 6.0465
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: LINEAR OPTIONS
Year: 2009
GEPAID: CAR000080119
Contact: PATRICK V COLLINS/VP
Telephone: 6508331800
Mailing Name: Not reported
Mailing Address: 1 KELLY CT
Mailing City,St,Zip: MENLO PARK, CA 940250000
Gen County: Not reported
TSD EPA ID: NVD980895338
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 19.6742
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: LINEAR OPTIONS
Year: 2008
GEPAID: CAR000080119
Contact: PATRICK V COLLINS/OWNER
Telephone: 6508331800

LINEAR OPTIONS (Continued) **1004676035**

Mailing Name:	Not reported
Mailing Address:	1 KELLY CT
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	Not reported
TSD EPA ID:	NVD980895338
TSD County:	Not reported
Waste Category:	Latex waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	10.5501
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Click this hyperlink while viewing on your computer to access
11 additional CA_HAZNET: record(s) in the EDR Site Report.

R118 **SATELLITE HEALTHCARE** **CA San Mateo Co. BI** **S117040495**
ENE **1040 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.195 mi.
1032 ft. **Site 4 of 9 in cluster R**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0049552
Prog Element Code:	LARGE QTY GEN >200 LB/MO OFFSITE TREATMENT
Record Id:	PR0067772
Description:	LQG OFF-SITE TREATMENT >200 LB/MO
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0049552
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0076431
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Active, billable

P119 **ALZA CORPORATION** **NY MANIFEST** **S122481771**
East **1050 HAMILTON CT** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.198 mi.
1047 ft. **Site 2 of 4 in cluster P**

Relative: **Higher**
Actual: **12 ft.**

NY MANIFEST:

Country:	USA
EPA ID:	CAD981973712
Facility Status:	Not reported
Location Address 1:	1050 HAMILTON CT
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	MENLO PARK
Location State:	CA
Location Zip:	94025
Location Zip 4:	Not reported

ALZA CORPORATION (Continued) **S122481771**

NY MANIFEST:

EPAID:	CAD981973712
Mailing Name:	ALZA CORPORATION
Mailing Contact:	MARIO PHILLIPS
Mailing Address 1:	1050 HAMILTON CT
Mailing Address 2:	Not reported
Mailing City:	MENLO PARK
Mailing State:	CA
Mailing Zip:	94025
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	6504945572

NY MANIFEST:

Document ID:	NYC5702398
Manifest Status:	Not reported
seq:	01
Year:	2002
Trans1 State ID:	Not reported
Trans2 State ID:	AB62852NY
Generator Ship Date:	06/28/2002
Trans1 Recv Date:	06/28/2002
Trans2 Recv Date:	07/02/2002
TSD Site Recv Date:	07/17/2002
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	CAD981973712
Trans1 EPA ID:	SCR000074591
Trans2 EPA ID:	NYD982792814
TSDF ID 1:	NYD000632372
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00030
Units:	P - Pounds
Number of Containers:	006
Container Type:	CY - Cylinders
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00

ALZA CORPORATION (Continued) **S122481771**

Click this hyperlink while viewing on your computer to access
-1 additional NY MANIFEST: record(s) in the EDR Site Report.

P120 **ALZA CORPORATION** **CA San Mateo Co. BI** **S106981520**
East **1050 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.198 mi.
1047 ft. **Site 3 of 4 in cluster P**

Relative:
Higher

Actual:
12 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0045761
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0060936
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0045761
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0061651
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0045761
Prog Element Code:	LARGE QTY GEN >200 LB/MO OFFSITE TREATMENT
Record Id:	PR0062629
Description:	LQG OFF-SITE TREATMENT >200 LB/MO
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0045761
Prog Element Code:	GEN <1 TONS HAZ WASTE/YR
Record Id:	PR0060937
Description:	GEN <1 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017631
Prog Element Code:	GEN 1-5 TONS HAZ WASTE/YR
Record Id:	PR0011456
Description:	GEN 1-5 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0017631
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0004128
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0024559
Prog Element Code:	GEN 1-5 TONS HAZ WASTE/YR
Record Id:	PR0029342
Description:	GEN 1-5 TONS HAZ WASTE/YR
Facility Status:	Inactive, non-billable

ALZA CORPORATION (Continued) **S106981520**

Region: SAN MATEO
Facility ID: FA0024559
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040641
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0024559
Prog Element Code: STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id: PR0029343
Description: STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0027091
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0042623
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Inactive, non-billable

P121 **ALZA CORPORATION** **RCRA NonGen / NLR** **1000342365**
East **1050 HAMILTON CT** **FINDS** **CAD981973712**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.198 mi. **CA HAZNET**
1047 ft. **Site 4 of 4 in cluster P**

Relative:
Higher

Actual:
12 ft.

RCRA NonGen / NLR:
Date form received by agency: 05/23/2008
Facility name: ALZA CORPORATION
Facility address: 1050 HAMILTON CT
MENLO PARK, CA 94025
EPA ID: CAD981973712
Mailing address: 1010 JOAQUIN RD
PO BOX 7210
MOUNTAIN VIEW, CA 94043
Contact: ESTHER PHAM
Contact address: 1010 JOAQUIN RD PO BOX 7210
MOUNTAIN VIEW, CA 94043
Contact country: US
Contact telephone: 650-564-2429
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ALZA CORPORATION
Owner/operator address: P.O. BOX 7210
MOUNTAIN VIEW, CA 94039
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner

ALZA CORPORATION (Continued) **1000342365**

Owner/Op start date: 03/01/1999
Owner/Op end date: Not reported

Owner/operator name: ALZA CORP
Owner/operator address: 1900 CHARLESTON RD
MOUNTAIN VIEW, CA 94043
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 03/01/1999
Owner/Op end date: Not reported

Owner/operator name: ALZA CORP (MP2, MP1, MP4)
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/01/1999
Owner/Op end date: Not reported

Owner/operator name: ALZA CORPORATION (MP1, MP2, MP4)
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/01/1999
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No

ALZA CORPORATION (Continued) **1000342365**

Used oil transporter: No

Historical Generators:
Date form received by agency: 02/14/2008
Site name: ALZA CORPORATION (MP)
Classification: Large Quantity Generator

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D008
. Waste name: LEAD

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

ALZA CORPORATION (Continued) **1000342365**

Date form received by agency: 02/24/2006
Site name: ALZA CORPORATION (MP1, MP2, MP4)
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

. Waste code: U188
. Waste name: PHENOL

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U010
. Waste name: AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-MET HOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ALZA CORPORATION (Continued) **1000342365**

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 741
. Waste name: Liquids with halogenated organic compounds > 1000 mg/l

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 311
. Waste name: Pharmaceutical waste

. Waste code: 281
. Waste name: Adhesives

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

Date form received by agency: 02/27/2004
Site name: ALZA CORP (MP2, MP1, MP4)
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: U328

ALZA CORPORATION (Continued) **1000342365**

. Waste name: BENZENAMINE, 2-METHYL- (OR) O-TOLUIDINE

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D018
. Waste name: BENZENE

. Waste code: D009
. Waste name: MERCURY

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D002

ALZA CORPORATION (Continued) **1000342365**

. Waste name: CORROSIVE WASTE

Date form received by agency: 11/29/2001
Site name: ALZA CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D008
. Waste name: LEAD

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 10/12/2000
Site name: ALZA CORPORATION (MP2)
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: ALZA CORPORATION
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002761182

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal

ALZA CORPORATION (Continued) **1000342365**

facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000342365
Registry ID:	110002761182
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002761182

HAZNET:

Site Name:	ALZA CORPORATION
Year:	2008
GEPAID:	CAD981973712
Contact:	ESTHER PHAM-ENVIRO AFFAIRS MGR
Telephone:	6505642429
Mailing Name:	Not reported
Mailing Address:	1900 CHARLESTON RD
Mailing City,St,Zip:	MOUNTAIN VIEW, CA 940397210
Gen County:	Not reported
TSD EPA ID:	UTD981552177
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	2.6105
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	San Mateo

Site Name:	ALZA CORPORATION
Year:	2008
GEPAID:	CAD981973712
Contact:	ESTHER PHAM-ENVIRO AFFAIRS MGR
Telephone:	6505642429
Mailing Name:	Not reported
Mailing Address:	1900 CHARLESTON RD
Mailing City,St,Zip:	MOUNTAIN VIEW, CA 940397210
Gen County:	Not reported
TSD EPA ID:	UTD981552177
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0025
Cat Decode:	Not reported
Method Decode:	Not reported

ALZA CORPORATION (Continued) **1000342365**

Facility County: San Mateo

Site Name: ALZA CORPORATION
Year: 2008
GEPAID: CAD981973712
Contact: ESTHER PHAM-ENVIRO AFFAIRS MGR
Telephone: 6505642429
Mailing Name: Not reported
Mailing Address: 1900 CHARLESTON RD
Mailing City,St,Zip: MOUNTAIN VIEW, CA 940397210
Gen County: Not reported
TSD EPA ID: TXD982290140
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Other Treatment
Tons: 0.011
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: ALZA CORPORATION
Year: 2008
GEPAID: CAD981973712
Contact: ESTHER PHAM-ENVIRO AFFAIRS MGR
Telephone: 6505642429
Mailing Name: Not reported
Mailing Address: 1900 CHARLESTON RD
Mailing City,St,Zip: MOUNTAIN VIEW, CA 940397210
Gen County: Not reported
TSD EPA ID: UTD981552177
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.261
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: ALZA CORPORATION
Year: 2008
GEPAID: CAD981973712
Contact: ESTHER PHAM-ENVIRO AFFAIRS MGR
Telephone: 6505642429
Mailing Name: Not reported
Mailing Address: 1900 CHARLESTON RD
Mailing City,St,Zip: MOUNTAIN VIEW, CA 940397210
Gen County: Not reported
TSD EPA ID: ARD069748192
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.0045
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

ALZA CORPORATION (Continued) **1000342365**

Click this hyperlink while viewing on your computer to access
267 additional CA_HAZNET: record(s) in the EDR Site Report.

S122 **AT & T MOBILITY-PG&E RAYCHEM** **CA San Mateo Co. BI** **S110653868**
NNE **1599 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.200 mi.
1056 ft. **Site 1 of 7 in cluster S**

Relative: **Lower**
Actual: **8 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0047039
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0064083
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

T123 **WESTERN ALLIED CORP** **CA San Mateo Co. BI** **S105083066**
SE **22 KELLY** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.202 mi.
1069 ft. **Site 1 of 7 in cluster T**

Relative: **Higher**
Actual: **12 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0027332
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0043258
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0027332
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0043256
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0027332
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0043257
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

T124
SE
1/8-1/4
0.216 mi.
1141 ft.

NOREN PRODUCTS INC
1075 OBRIEN
MENLO PARK, CA 94025

Site 2 of 7 in cluster T

CA San Mateo Co. BI **S106499333**
N/A

Relative:
Higher

Actual:
12 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0022649
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040606
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022649
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0025139
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022649
Prog Element Code:	HAZARDOUS WASTE PROGRAM - GENERAL
Record Id:	PR0066472
Description:	HAZARDOUS WASTE PROGRAM - GENERAL
Facility Status:	Inactive, non-billable

125
NNW
1/8-1/4
0.220 mi.
1162 ft.

MENLO PARK WEST CAMPUS
312-314 CONSTITUTION DRIVE
MENLO PARK, CA 94025

CA ENVIROSTOR **S110977138**
CA VCP **N/A**
CA DEED

Relative:
Lower

Actual:
8 ft.

ENVIROSTOR:

Facility ID:	60001437
Status:	Certified / Operation & Maintenance
Status Date:	06/30/2015
Site Code:	201902
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	22
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Robert Boggs
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	YES
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.48102
Longitude:	-122.1533
APN:	055260210, 055260220
Past Use:	MANUFACTURING - ELECTRONIC
Potential COC:	Arsenic Total Chromium (1:6 ratio Cr VI:Cr III Polychlorinated biphenyls (PCBs Chlorobenzene 1,1-Dichloroethane

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Confirmed COC: Arsenic Total Chromium (1:6 ratio Cr VI:Cr III 1,1-Dichloroethane
Polychlorinated biphenyls (PCBs Chlorobenzene
Potential Description: OTH, SOIL
Alias Name: Facebook West Campus
Alias Type: Alternate Name
Alias Name: Tyco Electronics Corporation
Alias Type: Alternate Name
Alias Name: 055260210
Alias Type: APN
Alias Name: 055260220
Alias Type: APN
Alias Name: 201902
Alias Type: Project Code (Site Code)
Alias Name: 60001437
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 07/10/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/19/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/30/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/12/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 08/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 07/13/2012
Comments: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/30/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 09/12/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/05/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 10/23/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 11/09/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 01/25/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Consultation
Completed Date: 05/23/2011
Comments: NOP comments sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/18/2012
Comments: Demand letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Date: 09/19/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 04/23/2012
Comments: Demand letter #3

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Responsible Agency Review
Completed Date: 01/30/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/23/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/06/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/30/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/25/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/05/2012
Comments: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 06/17/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/12/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 02/18/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 01/19/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 09/16/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/13/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 09/19/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Date: 10/07/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/06/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 01/30/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 06/14/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/17/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/14/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/01/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 05/08/2013
Comments: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/21/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/21/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/06/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/17/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/05/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/31/2015
Comments: Work completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/05/2013
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

VCP:

Facility ID:	60001437
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	22
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Robert Boggs
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Site Code:	201902
Assembly:	24
Senate:	13
Special Programs Code:	Not reported
Status:	Certified / Operation & Maintenance
Status Date:	06/30/2015
Restricted Use:	YES
Funding:	Responsible Party
Lat/Long:	37.48102 / -122.1533
APN:	055260210, 055260220
Past Use:	MANUFACTURING - ELECTRONIC
Potential COC:	30001, 30005, 30018, 30127, 30192
Confirmed COC:	30001,30005,30192,30018,30127
Potential Description:	OTH, SOIL
Alias Name:	Facebook West Campus
Alias Type:	Alternate Name
Alias Name:	Tyco Electronics Corporation
Alias Type:	Alternate Name
Alias Name:	055260210
Alias Type:	APN
Alias Name:	055260220
Alias Type:	APN
Alias Name:	201902
Alias Type:	Project Code (Site Code)
Alias Name:	60001437
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Participation Plan / Community Relations Plan
Completed Date:	07/10/2012
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Date: 09/19/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/30/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/12/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 08/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 07/13/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/30/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 09/12/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/05/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 10/23/2012
Comments: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 11/09/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 01/25/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Consultation
Completed Date: 05/23/2011
Comments: NOP comments sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/18/2012
Comments: Demand letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 09/19/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 04/23/2012
Comments: Demand letter #3

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Responsible Agency Review
Completed Date: 01/30/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/23/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Date: 09/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/06/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/30/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/25/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/05/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 06/17/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/12/2012
Comments: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 02/18/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 01/19/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 09/16/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/13/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 09/19/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 10/07/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/06/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 01/30/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Date: 06/14/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/17/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/14/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/01/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 05/08/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/21/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/21/2013
Comments: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 08/06/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/17/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/05/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/31/2015
Comments: Work completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/05/2013
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:
Envirostor ID: 60001437
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 01/19/2007
File Name: Envirostor Land Use Restrictions

Envirostor ID: 60001437
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported

MENLO PARK WEST CAMPUS (Continued) **S110977138**

Covenant Uploaded: Not reported
Deed Date(s): 08/06/2012
File Name: Envirostor Land Use Restrictions

R126 **MPK 40** **CA San Mateo Co. BI** **S119781797**
East **1080 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.223 mi.
1176 ft. **Site 5 of 9 in cluster R**

Relative: **Lower**
Actual: **9 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0060770
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0083342
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0060770
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0083341
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Active, billable

R127 **RENNOVIA INC** **RCRA-LQG** **1017785673**
East **1080 HAMILTON CT** **FINDS** **CAL000350837**
1/8-1/4 **MENLO PARK, CA 94025** **ECHO**
0.223 mi.
1176 ft. **Site 6 of 9 in cluster R**

Relative: **Lower**
Actual: **9 ft.**

RCRA-LQG:

Date form received by agency:	11/06/2014
Facility name:	RENNOVIA INC
Facility address:	1080 HAMILTON CT MENLO PARK, CA 94025
EPA ID:	CAL000350837
Mailing address:	HAMILTON CT MENLO PARK, CA 94025
Contact:	TOM HUYNH
Contact address:	HAMILTON CT MENLO PARK, CA 94025
Contact country:	Not reported
Contact telephone:	650-804-7419
Contact email:	THUYNH@RENNOVIA.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

RENNOVIA INC (Continued) **1017785673**

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	PROLOGIS
Owner/operator address:	GATEWAY BLVD
	FREMONT, CA 94538
Owner/operator country:	Not reported
Owner/operator telephone:	510-656-1900
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/03/2011
Owner/Op end date:	Not reported
Owner/operator name:	RENNOVIA INC
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	03/01/2010
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	D001
. Waste name:	IGNITABLE WASTE
. Waste code:	F003
. Waste name:	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT

RENNOVIA INC (Continued) **1017785673**

NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: D002
. Waste name: CORROSIVE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110063995431

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1017785673
Registry ID: 110063995431
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110063995431

R128 **RENNOVIA INC** **CA San Mateo Co. BI** **S110275428**
East **1080 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.223 mi.
1176 ft. **Site 7 of 9 in cluster R**

Relative: **Lower**

Actual: **9 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0045979
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0061634
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0045979
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0061650
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

RENNOVIA INC (Continued) **S110275428**

Region: SAN MATEO
Facility ID: FA0045979
Prog Element Code: GEN 6-25 TONS HAZ WASTE/YR
Record Id: PR0061635
Description: GEN 6-25 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

S129 **FUKI SUSHI JAPANESE RESTAURANT** **CA San Mateo Co. BI** **S123183167**
NNE **1601 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.233 mi.
1229 ft. **Site 2 of 7 in cluster S**

Relative: **Lower**
Actual: **7 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0051502
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0072724
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

S130 **FACEBOOK** **CA San Mateo Co. BI** **S123183011**
NNE **1601 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA 94611**
0.233 mi.
1229 ft. **Site 3 of 7 in cluster S**

Relative: **Lower**
Actual: **7 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0050313
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0071859
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

S131 **FACEBOOK** **CA San Mateo Co. BI** **S123183255**
NNE **1601 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.233 mi.
1229 ft. **Site 4 of 7 in cluster S**

Relative: **Lower**
Actual: **7 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0052240
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0073727
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

S132 **SUN MICROSYSTEMS** **CA AST** **A100271744**
NNE **1601 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA**
0.233 mi.
1229 ft. **Site 5 of 7 in cluster S**

Relative: **Lower**
Actual: **7 ft.**

AST:

Certified Unified Program Agencies:	San Mateo
Owner:	Not reported
Total Gallons:	1,320
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

S133 **ORACLE AMERICA INC** **CA San Mateo Co. BI** **S121700716**
NNE **1601 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.233 mi.
1229 ft. **Site 6 of 7 in cluster S**

Relative: **Lower**
Actual: **7 ft.**

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0023962
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040631
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0023962
Prog Element Code:	ABOVE GROUND TANK/SPCC
Record Id:	PR0046902
Description:	ABOVE GROUND TANK/SPCC
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0023962
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0029378

ORACLE AMERICA INC (Continued) **S121700716**

Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0023962
Prog Element Code:	2352
Record Id:	PR0067564
Description:	TIER I: TANK STOR CAP =>1,320 & <5,000 GAL
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0023962
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0024924
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Inactive, non-billable

S134 **SUN MICROSYSTEMS INC** **CA CPS-SLIC** **S113067739**
NNE **1601 WILLOW RD** **CA HAZNET** **N/A**
1/8-1/4 **MENLO PARK, CA 94025** **CA CERS**
0.233 mi.
1229 ft. **Site 7 of 7 in cluster S**

Relative: **Lower**
Actual: **7 ft.**

CPS-SLIC:

Site Name:	SUN MICROSYSTEMS INC
Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	05/11/2009
Global Id:	SLT2O101107
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	37.4831340770684
Longitude:	-122.150064732494
Case Type:	Cleanup Program Site
Case Worker:	UUU
Local Agency:	Not reported
RB Case Number:	41S0101
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

HAZNET:

Site Name:	SUN MICROSYSTEMS INC
Year:	2010
GEPAID:	CAL000120523
Contact:	DAWN LANGER, REGIONAL EHS MGR
Telephone:	6509601300
Mailing Name:	Not reported
Mailing Address:	4150 NETWORK CIR
Mailing City,St,Zip:	SANTA CLARA, CA 950541778
Gen County:	Not reported
TSD EPA ID:	CAT080014079
TSD County:	Not reported
Waste Category:	Other organic solids

SUN MICROSYSTEMS INC (Continued) **S113067739**

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.025
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: SUN MICROSYSTEMS INC
Year: 2010
GEPAID: CAL000120523
Contact: DAWN LANGER, REGIONAL EHS MGR
Telephone: 6509601300
Mailing Name: Not reported
Mailing Address: 4150 NETWORK CIR
Mailing City,St,Zip: SANTA CLARA, CA 950541778
Gen County: Not reported
TSD EPA ID: CAT080014079
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.4
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: SUN MICROSYSTEMS INC
Year: 2010
GEPAID: CAL000120523
Contact: DAWN LANGER, REGIONAL EHS MGR
Telephone: 6509601300
Mailing Name: Not reported
Mailing Address: 4150 NETWORK CIR
Mailing City,St,Zip: SANTA CLARA, CA 950541778
Gen County: Not reported
TSD EPA ID: CAT080014079
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0015
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: SUN MICROSYSTEMS INC
Year: 2010
GEPAID: CAL000120523
Contact: DAWN LANGER, REGIONAL EHS MGR
Telephone: 6509601300
Mailing Name: Not reported
Mailing Address: 4150 NETWORK CIR
Mailing City,St,Zip: SANTA CLARA, CA 950541778
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics

SUN MICROSYSTEMS INC (Continued) **S113067739**

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0075
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Site Name: SUN MICROSYSTEMS INC
Year: 2010
GEPAID: CAL000120523
Contact: DAWN LANGER, REGIONAL EHS MGR
Telephone: 6509601300
Mailing Name: Not reported
Mailing Address: 4150 NETWORK CIR
Mailing City,St,Zip: SANTA CLARA, CA 950541778
Gen County: Not reported
TSD EPA ID: CAD008302903
TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.03
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
55 additional CA_HAZNET: record(s) in the EDR Site Report.

CERS TANKS:
Site ID: 213315
CERS ID: SLT2O101107
Site Name: SUN MICROSYSTEMS INC
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

T135 **WESTT INC** **CA San Mateo Co. BI** **S106982268**
SE **1090 OBRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.235 mi.
1242 ft. **Site 3 of 7 in cluster T**

Relative: **Higher**
Actual: **13 ft.**

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0028360
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0047003

WESTT INC (Continued) **S106982268**

Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0028360
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0047002
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

R136 **QLT PLUG DELIVERY** **RCRA NonGen / NLR** **1014950553**
East **1098 HAMILTON CT** **CAR000225201**
1/8-1/4 **MENLO PARK, CA 94025**
0.235 mi.
1242 ft. **Site 8 of 9 in cluster R**

Relative:
Higher

Actual:
10 ft.

RCRA NonGen / NLR:
Date form received by agency: 02/11/2013
Facility name: QLT PLUG DELIVERY
Facility address: 1098 HAMILTON CT
MENLO PARK, CA 94025
EPA ID: CAR000225201
Mailing address: 887 GREAT NORTHERN WAY
VANCOUVER, BC V5T4T5
Contact: TINA TETT
Contact address: 887 GREAT NORTHERN WAY
VANCOUVER, BC V5T4T5
Contact country: CA
Contact telephone: 604-551-1029
Contact email: TTETT@QLTINC.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: PROLOGIS
Owner/operator address: 1360 WILLOW RD STE 100
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-330-9020
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 06/03/2011
Owner/Op end date: Not reported

Owner/operator name: QLT PLUG DELIVERY INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private

QLT PLUG DELIVERY (Continued) **1014950553**

Owner/Operator Type: Operator
Owner/Op start date: 08/15/2009
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 05/09/2012
Site name: QLT PLUG DELIVERY INC
Classification: Small Quantity Generator

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT

QLT PLUG DELIVERY (Continued) **1014950553**

MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

R137 **BIOPHARMX** **CA San Mateo Co. BI** **S110275430**
East **1098 HAMILTON** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.235 mi.
1242 ft. **Site 9 of 9 in cluster R**

Relative: **Higher**
Actual: **10 ft.**

San Mateo Co. BI:

Region: SAN MATEO
Facility ID: FA0045981
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0061642
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0045981
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0061645
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0045981
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0061646
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0055428
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0076413
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

T138 **WEST, INC** **CA San Mateo Co. BI** **S105428998**
SE **1090 O'BRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.240 mi.
1266 ft. **Site 4 of 7 in cluster T**

Relative:
Higher

Actual:
13 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0026962
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040669
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0026962
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0040062
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Inactive, non-billable

T139 **VACANT COMMERCIAL** **CA SWEEPS UST** **S103622885**
SE **1105 O'BRIEN DR** **CA HIST CORTESE** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.240 mi.
1266 ft. **Site 5 of 7 in cluster T**

Relative:
Higher

Actual:
12 ft.

SWEEPS UST:

Status:	Active
Comp Number:	440004
Number:	9
Board Of Equalization:	Not reported
Referral Date:	04-13-94
Action Date:	04-13-94
Created Date:	10-13-88
Owner Tank Id:	UNK
SWRCB Tank Id:	41-000-440004-000001
Tank Status:	A
Capacity:	1000
Active Date:	04-13-94
Tank Use:	UNKNOWN
STG:	P
Content:	Not reported
Number Of Tanks:	1

HIST CORTESE:

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-0858

140
ESE
1/8-1/4
0.240 mi.
1266 ft.

WESTBAY STEEL INC
1 CASEY
MENLO PARK, CA 94025

CA LUST
CA San Mateo Co. BI
CA HIST CORTESE
CA CERS

1001262826
N/A

Relative:
Higher

Actual:
13 ft.

LUST:

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608192691
Global Id:	T0608192691
Latitude:	37.475681
Longitude:	-122.148459
Status:	Completed - Case Closed
Status Date:	09/20/2001
Case Worker:	Not reported
RB Case Number:	41-1251
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	440056
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608192691
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608192691
Action Type:	Other
Date:	05/17/1999
Action:	Leak Reported

Global Id:	T0608192691
Action Type:	ENFORCEMENT
Date:	06/24/1999
Action:	Notice of Responsibility - #1

LUST:

Global Id:	T0608192691
Status:	Completed - Case Closed
Status Date:	09/20/2001

Global Id:	T0608192691
Status:	Open - Case Begin Date
Status Date:	05/17/1999

LUST REG 2:

Region:	2
Facility Id:	Not reported

WESTBAY STEEL INC (Continued) **1001262826**

Facility Status: Case Closed
Case Number: 440056
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440056
Facility Status: 9- Case Closed
Global ID: T0608192691
APN Number: 055433180
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0036964
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0061647
Description: GENERATES <27 GAL/YEAR
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0036964
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0053869
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0036964
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0053868
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0052070
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0072196
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0052070
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0072195

WESTBAY STEEL INC (Continued) **1001262826**

Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Active, billable

Region: SAN MATEO
Facility ID: FA0052070
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0072194
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Active, billable

Region: SAN MATEO
Facility ID: FA0022891
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0025747
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022891
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0025745
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022891
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040609
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022891
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0025746
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

HIST CORTESE:
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 3261

CERS TANKS:
Site ID: 234718
CERS ID: T0608192691
Site Name: WESTBAY STEEL
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA

WESTBAY STEEL INC (Continued) **1001262826**

Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

141
ENE
1/8-1/4
0.240 mi.
1269 ft.

SAGEHILL ENGINEERING **CA San Mateo Co. BI** **S103986043**
1115 HAMILTON **N/A**
MENLO PARK, CA 94025

Relative:
Lower

Actual:
9 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0022473
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0024567
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022473
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040595
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0022473
Prog Element Code: STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id: PR0024568
Description: STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status: Inactive, non-billable

U142
SSW
1/8-1/4
0.241 mi.
1272 ft.

GUALDULAHARA TAQUERIA **CA San Mateo Co. BI** **S123180167**
1211 WILLOW **N/A**
MENLO PARK, CA 94025

Site 1 of 2 in cluster U

Relative:
Higher

Actual:
16 ft.

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0009160
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041951
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

T143 **KATEEVA INC** **CA San Mateo Co. BI** **S117040507**
SE **1105 OBRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.244 mi.
1287 ft. **Site 6 of 7 in cluster T**

Relative:
Higher

Actual:
12 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0055943
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0077100
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0055943
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0077098
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0055943
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0077099
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Inactive, non-billable

T144 **JUPITER ENGINEERING** **CA LUST** **S104493822**
SE **1105 O'BRIEN** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.244 mi.
1287 ft. **Site 7 of 7 in cluster T**

Relative:
Higher

Actual:
12 ft.

LUST:

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100804
Global Id:	T0608100804
Latitude:	37.4745969
Longitude:	-122.1489461
Status:	Completed - Case Closed
Status Date:	12/06/1994
Case Worker:	Not reported
RB Case Number:	41-0858
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	440044
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608100804
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported

JUPITER ENGINEERING (Continued) **S104493822**

Phone Number: Not reported

LUST:
Global Id: T0608100804
Action Type: Other
Date: 07/21/1994
Action: Leak Reported

Global Id: T0608100804
Action Type: ENFORCEMENT
Date: 07/21/1994
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608100804
Status: Completed - Case Closed
Status Date: 12/06/1994

Global Id: T0608100804
Status: Open - Case Begin Date
Status Date: 07/21/1994

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 440044
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440044
Facility Status: 9- Case Closed
Global ID: T0608100804
APN Number: 055433320
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

U145 **QUALITY MARKET** **CA San Mateo Co. BI** **S123179218**
SSW **1209 WILLOW** **N/A**
1/8-1/4 **MENLO PARK, CA 94025**
0.244 mi.
1287 ft. **Site 2 of 2 in cluster U**

Relative:
Higher

Actual:
16 ft.

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0000552
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041865
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

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146 **MELCHER'S IRON WORKS, FORMER** **CA LUST** **S102444543**
NE **1520 WILLOW** **CA CPS-SLIC** **N/A**
1/4-1/2 **MENLO PARK, CA 94025** **CA HIST CORTESE**
0.279 mi.
1473 ft.

Relative:
Lower

Actual:
0 ft.

SAN MATEO CO. LUST:

Region:	SAN MATEO
Facility ID:	449005
Facility Status:	9- Case Closed
Global ID:	T0608104269
APN Number:	055412040
Case Type:	SAN MATEO CO. LUST
EDR Link ID:	SAN MATEO CO. LUST

CPS-SLIC:

Site Name:	MELCHER'S IRON WORKS, FORMER
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	09/09/1996
Global Id:	T0608104269
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449005
Latitude:	37.481297
Longitude:	-122.147614
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency Warehouse
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

HIST CORTESE:

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-0999

147
SSW
1/4-1/2
0.287 mi.
1514 ft.

KITTY CLEANERS
910 NEWBRIDGE
EAST PALO ALTO, CA 94303

CA CPS-SLIC **S108543226**
CA BROWNFIELDS **N/A**
CA CERS

Relative:
Higher

Actual:
17 ft.

CPS-SLIC:

Site Name:	KITTY CLEANERS
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	10/30/2009
Global Id:	SL0608107863
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not reported
Latitude:	37.472471
Longitude:	-122.154196
Case Type:	Cleanup Program Site
Case Worker:	MEJ
Local Agency:	Not reported
RB Case Number:	41S0177
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

BROWNFIELDS:

Global ID:	SL0608107863
Latitude:	37.472471
Longitude:	-122.154196
Project Type:	Cleanup Program Site
Status:	Completed - Case Closed
Status Date:	10/30/2009
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Last Correspondence Date:	10/30/2009
Release Type:	Not reported
Contaminant(s) of Concern:	Tetrachloroethylene (PCE)
Media of Concern:	Other Groundwater (uses other than drinking water)
Past Use(s) that Caused Contamination:	DRY CLEANING, FUEL - VEHICLE STORAGE/ REFUELING
Human Health Exposure Controlled:	YES
Human Health Exposure Controlled Date:	04/24/2008
Groundwater Migration Controlled:	NOT APPLICABLE
Groundwater Migration Controlled Date:	04/24/2008
Primary Caseworker Name:	MARK JOHNSON
Primary Caseworker Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Primary Caseworker Phone Number:	510-622-2493
Primary Caseworker Address:	1515 CLAY STREET, SUITE 1400
Primary Caseworker Address:	OAKLAND
Primary Caseworker Address:	CA
Primary Caseworker Email:	mjohnson@waterboards.ca.gov

CERS TANKS:

Site ID:	200383
CERS ID:	SL0608107863
Site Name:	KITTY CLEANERS
CERS Description:	Cleanup Program Site

KITTY CLEANERS (Continued) **S108543226**

Affiliation:
- Affiliation Type Desc: Regional Board Caseworker
- Entity Name: MARK JOHNSON - SAN FRANCISCO BAY RWQCB (REGION 2)
- Entity Title: Not reported
- Affiliation Address: 1515 CLAY STREET, SUITE 1400
- Affiliation City: OAKLAND
- Affiliation State: CA
- Affiliation Country: Not reported
- Affiliation Zip: Not reported
- Affiliation Phone: Not reported

V148 **RAYMOND HANDLING SYSTEM** **CA LUST** **S104493823**
ESE **1215 O'BRIEN** **N/A**
1/4-1/2 **MENLO PARK, CA 94025**
0.293 mi.
1547 ft. **Site 1 of 3 in cluster V**

Relative: **Higher**
Actual: **13 ft.**

LUST REG 2:
- Region: 2
- Facility Id: Not reported
- Facility Status: Case Closed
- Case Number: 440015
- How Discovered: OM
- Leak Cause: Unknown
- Leak Source: Unknown
- Date Leak Confirmed: Not reported
- Oversight Program: LUST
- Prelim. Site Assesment Wokplan Submitted: Not reported
- Preliminary Site Assesment Began: Not reported
- Pollution Characterization Began: Not reported
- Pollution Remediation Plan Submitted: Not reported
- Date Remediation Action Underway: Not reported
- Date Post Remedial Action Monitoring Began: Not reported

V149 **RAYMOND HANDLING SYSTEM** **CA LUST** **S105024932**
ESE **1215 O BRIEN** **CA CPS-SLIC** **N/A**
1/4-1/2 **MENLO PARK, CA 94025** **CA HIST CORTESE**
0.293 mi.
1547 ft. **Site 2 of 3 in cluster V**

Relative: **Higher**
Actual: **13 ft.**

LUST:
- Lead Agency: SAN MATEO COUNTY LOP
- Case Type: LUST Cleanup Site
- Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100417
- Global Id: T0608100417
- Latitude: 37.475902
- Longitude: -122.14751
- Status: Completed - Case Closed
- Status Date: 04/17/1990
- Case Worker: Not reported
- RB Case Number: 41-1195
- Local Agency: Not reported
- File Location: Local Agency Warehouse
- Local Case Number: 440015
- Potential Media Affect: Other Groundwater (uses other than drinking water)

RAYMOND HANDLING SYSTEM (Continued) **S105024932**

Potential Contaminants of Concern: Not reported
Site History: Not reported

LUST:
Global Id: T0608100417
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100417
Action Type: Other
Date: 11/07/1988
Action: Leak Reported

Global Id: T0608100417
Action Type: ENFORCEMENT
Date: 04/17/1990
Action: Notice of Responsibility - #1

LUST:
Global Id: T0608100417
Status: Completed - Case Closed
Status Date: 04/17/1990

Global Id: T0608100417
Status: Open - Case Begin Date
Status Date: 04/17/1990

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440015
Facility Status: 9- Case Closed
Global ID: T0608100417
APN Number: 055433190
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

Region: SAN MATEO
Facility ID: 449004
Facility Status: 9- Case Closed
Global ID: T0608144763
APN Number: 055433190
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

CPS-SLIC:
Site Name: RAYMOND HANDLING SYSTEMS
Region: STATE
Facility Status: Completed - Case Closed
Status Date: 12/31/1992

RAYMOND HANDLING SYSTEM (Continued) **S105024932**

Global Id:	T0608144763
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449004
Latitude:	37.475856
Longitude:	-122.147478
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	41-0438
File Location:	Local Agency Warehouse
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

HIST CORTESE:

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-0438

V150
ESE
1/4-1/2
0.293 mi.
1547 ft.

RAYMOND HANDLING SYSTEMS **CA HIST CORTESE** **S105024931**
1215 O BRIEN **N/A**
MENLO PARK, CA 94025

Site 3 of 3 in cluster V

Relative: Higher

Actual: 13 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-1195

W151
WNW
1/4-1/2
0.354 mi.
1871 ft.

ROOFING CONTRACTOR **CA LUST** **S106966986**
551/555 HAMILTON AVE **N/A**
MENLO PARK, CA

Site 1 of 3 in cluster W

Relative: Lower

Actual: 9 ft.

SAN MATEO CO. LUST:

Region:	SAN MATEO
Facility ID:	449075
Facility Status:	9- Case Closed
Global ID:	SL0608164334
APN Number:	055480450
Case Type:	SAN MATEO CO. LUST
EDR Link ID:	SAN MATEO CO. LUST

W152 **ROOFING CONTRACTOR** **CA CPS-SLIC** **S106916380**
WNW **551/555 HAMILTON** **CA CERS** **N/A**
1/4-1/2 **MENLO PARK, CA 94025**
0.354 mi.
1871 ft. **Site 2 of 3 in cluster W**

Relative: **Lower**
Actual: **9 ft.**

CPS-SLIC:

Site Name:	ROOFING CONTRACTOR
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	10/27/2004
Global Id:	SL0608164334
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449075
Latitude:	37.479083
Longitude:	-122.158702
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency Warehouse
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

CERS TANKS:

Site ID:	216060
CERS ID:	SL0608164334
Site Name:	ROOFING CONTRACTOR
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

W153 **SEGALE BROS WOOD PRODUCTS** **CA LUST** **S106875563**
WNW **535 HAMILTON** **CA CPS-SLIC** **N/A**
1/4-1/2 **MENLO PARK, CA 94025** **CA San Mateo Co. BI**
0.369 mi. **CA CERS**
1948 ft. **Site 3 of 3 in cluster W**

Relative: **Lower**
Actual: **9 ft.**

SAN MATEO CO. LUST:

Region:	SAN MATEO
Facility ID:	449079
Facility Status:	9- Case Closed
Global ID:	SL0608119551
APN Number:	055341240
Case Type:	SAN MATEO CO. LUST
EDR Link ID:	SAN MATEO CO. LUST

SEGALE BROS WOOD PRODUCTS (Continued) **S106875563**

CPS-SLIC:

Site Name:	SEGALE BROTHERS WOOD PRODUCTS, FORMER
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	01/25/2005
Global Id:	SL0608119551
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449079
Latitude:	37.479107
Longitude:	-122.159634
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency Warehouse
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Lead
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

San Mateo Co. BI:

Region:	SAN MATEO
Facility ID:	FA0005855
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0011484
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0005855
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040527
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0005855
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0004131
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

CERS TANKS:

Site ID:	213798
CERS ID:	SL0608119551
Site Name:	SEGALE BROTHERS WOOD PRODUCTS, FORMER
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA

SEGALE BROS WOOD PRODUCTS (Continued) **S106875563**

Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

X154 **TOLLNER PAINTING INC** **CA LUST** **S102268273**
West **525 HAMILTON** **CA San Mateo Co. BI** **N/A**
1/4-1/2 **MENLO PARK, CA 94025** **CA CERS**
0.384 mi.
2030 ft. **Site 1 of 4 in cluster X**

Relative:
Higher

Actual:
10 ft.

LUST:
Lead Agency: SAN MATEO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608143678
Global Id: T0608143678
Latitude: 37.479028
Longitude: -122.160055
Status: Completed - Case Closed
Status Date: 10/27/2004
Case Worker: Not reported
RB Case Number: Not reported
Local Agency: Not reported
File Location: Local Agency Warehouse
Local Case Number: 440074
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608143678
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608143678
Action Type: Other
Date: 04/16/2003
Action: Leak Reported

Global Id: T0608143678
Action Type: RESPONSE
Date: 01/16/2004
Action: Final Remedial Action Report / Corrective Action Report

Global Id: T0608143678
Action Type: RESPONSE
Date: 11/16/2003
Action: Electronic Reporting Submittal Due

Global Id: T0608143678
Action Type: REMEDIATION
Date: 03/22/2004

TOLLNER PAINTING INC (Continued) **S102268273**

Action: Excavation

Global Id: T0608143678
Action Type: RESPONSE
Date: 06/24/2003
Action: Preliminary Site Assessment Workplan

Global Id: T0608143678
Action Type: ENFORCEMENT
Date: 09/16/2003
Action: Staff Letter - #20030916A

Global Id: T0608143678
Action Type: ENFORCEMENT
Date: 05/07/2003
Action: Notice of Responsibility - #1

Global Id: T0608143678
Action Type: ENFORCEMENT
Date: 09/16/2003
Action: Staff Letter - #20030916B

Global Id: T0608143678
Action Type: Other
Date: 03/10/2003
Action: Leak Discovery

Global Id: T0608143678
Action Type: ENFORCEMENT
Date: 10/27/2004
Action: Closure/No Further Action Letter - #20041027

LUST:
Global Id: T0608143678
Status: Completed - Case Closed
Status Date: 10/27/2004

Global Id: T0608143678
Status: Open - Case Begin Date
Status Date: 03/10/2003

Global Id: T0608143678
Status: Open - Remediation
Status Date: 09/16/2003

Global Id: T0608143678
Status: Open - Site Assessment
Status Date: 05/07/2003

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Remedial action (cleanup) Underway
Case Number: 440074
How Discovered: PS

TOLLNER PAINTING INC (Continued) **S102268273**

Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 5/7/2003
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 9/16/2003
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440074
Facility Status: 9- Case Closed
Global ID: T0608143678
APN Number: 055480480
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0007585
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040533
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0007585
Prog Element Code: STORES HAZ MAT <3,499GAL,27,999LB,13,999FT3
Record Id: PR0004141
Description: STORES HAZ MAT <3,499GAL,27,999LB,13,999CF
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0007585
Prog Element Code: GEN <1 TONS HAZ WASTE/YR
Record Id: PR0011490
Description: GEN <1 TONS HAZ WASTE/YR
Facility Status: Inactive, non-billable

CERS TANKS:
Site ID: 237758
CERS ID: T0608143678
Site Name: TOLLNER PAINTING
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported

TOLLNER PAINTING INC (Continued) **S102268273**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

X155 **ALANIZ CONSTRUCTION INC** **CA LUST** **S105724692**
West **519 HAMILTON** **CA CPS-SLIC** **N/A**
1/4-1/2 **MENLO PARK, CA 94025** **CA San Mateo Co. BI**
0.399 mi. **CA CERS**
2106 ft. **Site 2 of 4 in cluster X**

Relative:
Higher

Actual:
10 ft.

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 449073
Facility Status: 9- Case Closed
Global ID: SL0608139819
APN Number: 055480480
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

CPS-SLIC:
Site Name: ALANIZ/TIM HILLEARY CONSTRUCTION
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 10/27/2004
Global Id: SL0608139819
Lead Agency: SAN MATEO COUNTY LOP
Lead Agency Case Number: 449073
Latitude: 37.478956
Longitude: -122.160393
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency Warehouse
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Other Insecticides / Pesticide / Fumigants / Herbicides, Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

San Mateo Co. BI:
Region: SAN MATEO
Facility ID: FA0023168
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040617
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable

Region: SAN MATEO
Facility ID: FA0023168
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0026511
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable

Region: SAN MATEO

ALANIZ CONSTRUCTION INC (Continued) **S105724692**

Facility ID: FA0023168
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0026512
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable

CERS TANKS:
Site ID: 215773
CERS ID: SL0608139819
Site Name: ALANIZ/TIM HILLEARY CONSTRUCTION
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

X156 **SUNSET HEATING AND A/C CO** **CA LUST** **U001594223**
West **511 HAMILTON AVENUE** **CA CPS-SLIC** **N/A**
1/4-1/2 **MENLO PARK, CA 94025** **CA HIST UST**
0.414 mi. **CA CERS**
2186 ft. **Site 3 of 4 in cluster X**

Relative: Higher
Actual: 10 ft.

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 449072
Facility Status: 9- Case Closed
Global ID: SL0608109540
APN Number: 055480480
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

CPS-SLIC:
Site Name: SUNSET HEATING AND AIR CONDITIONING
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 10/27/2004
Global Id: SL0608109540
Lead Agency: SAN MATEO COUNTY LOP
Lead Agency Case Number: 449072
Latitude: 37.478914
Longitude: -122.160645
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency Warehouse
Potential Media Affected: Soil
Potential Contaminants of Concern: Polychlorinated biphenyls (PCBs), Chlordane
Site History: Not reported

SUNSET HEATING AND A/C CO (Continued) **U001594223**

Click here to access the California GeoTracker records for this facility:

HIST UST:

File Number:	0002C349
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002C349.pdf
Region:	STATE
Facility ID:	00000006997
Facility Type:	Other
Other Type:	CONTRACTOR
Contact Name:	WILLIAM R. KASTELIC
Telephone:	4153241696
Owner Name:	SUNSET HEATING & A/C CO.
Owner Address:	511 HAMILTON AVENUE
Owner City,St,Zip:	MENLO PARK, CA 94025
Total Tanks:	0002
Tank Num:	001
Container Num:	1
Year Installed:	1972
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Not reported
Tank Num:	002
Container Num:	2
Year Installed:	1972
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

CERS TANKS:

Site ID:	189398
CERS ID:	SL0608109540
Site Name:	SUNSET HEATING AND AIR CONDITIONING
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

X157 **SUNSET HEATING AND AIR CONDITIONING UST** **CA LUST** **S106117981**
West **507 HAMILTON** **CA CERS** **N/A**
1/4-1/2 **MENLO PARK, CA 94025**
0.422 mi.
2230 ft. **Site 4 of 4 in cluster X**

Relative:
Higher

Actual:
10 ft.

LUST:

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608179055
Global Id:	T0608179055
Latitude:	37.478635
Longitude:	-122.160788
Status:	Completed - Case Closed
Status Date:	10/27/2004
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	440071
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608179055
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608179055
Action Type:	Other
Date:	04/16/2003
Action:	Leak Reported
Global Id:	T0608179055
Action Type:	RESPONSE
Date:	06/24/2003
Action:	Preliminary Site Assessment Workplan
Global Id:	T0608179055
Action Type:	RESPONSE
Date:	11/16/2003
Action:	Electronic Reporting Submittal Due
Global Id:	T0608179055
Action Type:	RESPONSE
Date:	01/16/2004
Action:	Final Remedial Action Report / Corrective Action Report
Global Id:	T0608179055
Action Type:	REMEDIATION
Date:	03/17/2004
Action:	Excavation

SUNSET HEATING AND AIR CONDITIONING UST (Continued) **S106117981**

Global Id: T0608179055
Action Type: Other
Date: 03/10/2003
Action: Leak Discovery

Global Id: T0608179055
Action Type: ENFORCEMENT
Date: 10/27/2004
Action: Closure/No Further Action Letter - #20041027

Global Id: T0608179055
Action Type: ENFORCEMENT
Date: 09/16/2003
Action: Staff Letter - #20030916A

Global Id: T0608179055
Action Type: ENFORCEMENT
Date: 05/05/2003
Action: Notice of Responsibility - #1

Global Id: T0608179055
Action Type: ENFORCEMENT
Date: 09/16/2003
Action: Staff Letter - #20030916B

LUST:
Global Id: T0608179055
Status: Completed - Case Closed
Status Date: 10/27/2004

Global Id: T0608179055
Status: Open - Case Begin Date
Status Date: 03/10/2003

Global Id: T0608179055
Status: Open - Remediation
Status Date: 09/16/2003

Global Id: T0608179055
Status: Open - Site Assessment
Status Date: 04/24/2003

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Remedial action (cleanup) Underway
Case Number: 440071
How Discovered: PS
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 4/24/2003
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported

SUNSET HEATING AND AIR CONDITIONING UST (Continued) **S106117981**

Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 9/16/2003
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Region: SAN MATEO
Facility ID: 440071
Facility Status: 9- Case Closed
Global ID: T0608179055
APN Number: 055480480
Case Type: SAN MATEO CO. LUST
EDR Link ID: SAN MATEO CO. LUST

CERS TANKS:
Site ID: 211301
CERS ID: T0608179055
Site Name: SUNSET HEATING AND AIR CONDITIONING UST
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Y158 **TE CONNECTIVITY LTD** **SEMS-ARCHIVE** **1000170323**
WNW **305 CONSTITUTION DR.** **RCRA-TSDF** **CAD009125527**
1/2-1 **MENLO PARK, CA 94025** **RCRA-LQG**
0.607 mi. **CA ENVIROSTOR**
3206 ft. **Site 1 of 2 in cluster Y** **CA CPS-SLIC**
CA HIST UST
Relative: **CA DEED**
Lower **CA CHMIRS**
2020 COR ACTION
Actual: **PADS**
6 ft. **FINDS**
ECHO
CA EMI
CA HIST CORTESE
CA NPDES
CA WDS
CA CIWQS
CA CERS

SEMS Archive:
Site ID: 0901154
EPA ID: CAD009125527
Cong District: 12
FIPS Code: 06081
FF: N
NPL: Not on the NPL

TE CONNECTIVITY LTD (Continued) **1000170323**

Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:

Region:	09
Site ID:	0901154
EPA ID:	CAD009125527
Site Name:	RAYCHEM CORP
NPL:	N
FF:	N
OU:	00
Action Code:	VS
Action Name:	ARCH SITE
SEQ:	1
Start Date:	Not reported
Finish Date:	1991-10-11 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf In-Hse

Region:	09
Site ID:	0901154
EPA ID:	CAD009125527
Site Name:	RAYCHEM CORP
NPL:	N
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	Not reported
Finish Date:	1991-10-11 04:00:00
Qual:	N
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0901154
EPA ID:	CAD009125527
Site Name:	RAYCHEM CORP
NPL:	N
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	2
Start Date:	1986-05-01 04:00:00
Finish Date:	1986-08-01 04:00:00
Qual:	H
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0901154
EPA ID:	CAD009125527
Site Name:	RAYCHEM CORP
NPL:	N
FF:	N
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1

TE CONNECTIVITY LTD (Continued) **1000170323**

Start Date:	Not reported
Finish Date:	1986-05-01 04:00:00
Qual:	L
Current Action Lead:	EPA Perf
Region:	09
Site ID:	0901154
EPA ID:	CAD009125527
Site Name:	RAYCHEM CORP
NPL:	N
FF:	N
OU:	00
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1981-06-01 04:00:00
Finish Date:	1981-06-01 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf

RCRA-TSDF:

Date form received by agency:	07/17/2018
Facility name:	TE CONNECTIVITY LTD
Facility address:	305 CONSTITUTION DR. MENLO PARK, CA 94025-0000
EPA ID:	CAD009125527
Mailing address:	CONSTITUTION DR. MENLO PARK, CA 94025-0000
Contact:	STEPHEN DOUGLAS
Contact address:	PASEO PADRE PKWY FREMONT, CA 94555
Contact country:	US
Contact telephone:	650-361-3022
Contact email:	SDOUGLAS@TE.COM
EPA Region:	09
Land type:	Private
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	HIBISCUS PROPERTIES LLC

TE CONNECTIVITY LTD (Continued) **1000170323**

Owner/operator address: HACKER WAY
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-308-7300
Owner/operator email: INFO@FACEBOOK.COM
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/04/2014
Owner/Op end date: Not reported

Owner/operator name: TE CONNECTIVITY LTD
Owner/operator address: CONSTITUTION DR.
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-361-3022
Owner/operator email: SDOUGLAS@TE.COM
Owner/operator fax: 650-361-3696
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1999
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U196
. Waste name: PYRIDINE

Historical Generators:
Date form received by agency: 03/07/2018
Site name: TE CONNECTIVITY LTD

TE CONNECTIVITY LTD (Continued) **1000170323**

Classification: Large Quantity Generator

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 133
. Waste name: Aqueous solution with 10% or more total organic residues

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/25/2016
Site name: TYCO ELECTRONICS CORPORATION
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

. Waste code: P003
. Waste name: 2-PROPENAL (OR) ACROLEIN

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: P005
. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

Date form received by agency: 09/17/2014
Site name: TYCO ELECTRONICS CORP
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/01/2014
Site name: TYCO ELECTRONICS CORP.
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

TE CONNECTIVITY LTD (Continued) **1000170323**

SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U133
. Waste name: HYDRAZINE (R,T)

Date form received by agency: 03/16/2012
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: D001
. Waste name: IGNITABLE WASTE

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D026
. Waste name: CRESOL

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: P015
. Waste name: BERYLLIUM

. Waste code: P029
. Waste name: COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P087
. Waste name: OSMIUM OXIDE OSO4, (T-4)- (OR) OSMIUM TETROXIDE

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: P099
. Waste name: ARGENTATE (1-), BIS(CYANO-C)-, POTASSIUM (OR) POTASSIUM SILVER CYANIDE

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U160
. Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Date form received by agency: 09/29/2010
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U082
. Waste name: 2,6-DICHLOROPHENOL (OR) PHENOL, 2,6-DICHLORO-

. Waste code: U201
. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U202
. Waste name: 1,2-BENZISOTHIAZOL-3(2H)-ONE, 1,1-DIOXIDE, & SALTS

. Waste code: U208
. Waste name: 1,1,1,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,1,2-TETRACHLORO-

. Waste code: U209
. Waste name: 1,1,2,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,2,2-TETRACHLORO-

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

. Waste code: U244
. Waste name: THIOPEROXYDICARBONIC DIAMIDE [(H2N)C(S)]2S2, TETRAMETHYL- (OR) THIRAM

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

Date form received by agency: 02/27/2008
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 02/27/2006
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

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. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/25/2004
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

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. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND

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F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 01/27/2003
Site name: TYCO ELECTRONICS CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

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TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

Date form received by agency: 02/26/2002
Site name: RAYCHEM CORPORATION (TYCO ELECTRONICS)
Classification: Large Quantity Generator

. Waste code: 121
. Waste name: Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

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. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341
. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 461
. Waste name: Degreasing sludge

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: 725
. Waste name: Liquids with mercury > 20 mg/l

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

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. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

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THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

Date form received by agency: 10/12/2000
Site name: RAYCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: RAYCHEM CORPORATION-MAIN SITE
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 03/11/1996
Site name: RAYCHEM CORPORATION-MAIN SITE
Classification: Large Quantity Generator

Date form received by agency: 04/20/1994
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 02/21/1992
Site name: RAYCHEM - MAIN SITE
Classification: Large Quantity Generator

Date form received by agency: 04/30/1990
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
Waste code: D001

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Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 10272

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 700

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 6079

Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 89

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 10354

Waste code: D008
Waste name: LEAD
Amount (Lbs): 15325

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 28

Waste code: D011
Waste name: SILVER
Amount (Lbs): 263

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 10180

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

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MIXTURES.
Amount (Lbs): 10180

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 10180

Waste code: LABP
Waste name: LAB PACK
Amount (Lbs): 6969

Waste code: P003
Waste name: ACROLEIN
Amount (Lbs): 7

Waste code: P005
Waste name: ALLYL ALCOHOL
Amount (Lbs): 7

Corrective Action Summary:

Event date: 05/01/1986
Event: LEAD AGENCY DETERMINATION

Event date: 05/01/1986
Event: NCAPS RANKING/PRIORITY

Event date: 05/01/1986
Event: PA OR CERCLA INSPECTION

Event date: 08/01/1986
Event: PA OR CERCLA INSPECTION

Event date: 10/02/1989
Event: RFA COMPLETED

Event date: 04/11/1994
Event: CA PRIORITIZATION-MEDIUM CA PRIORITY

Event date: 04/11/1994
Event: STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO STABILIZATION

Event date: 06/26/1996
Event: 3004(U) C/A UNDER PERMIT

Event date: 06/26/1996
Event: INVESTIGATION IMPOSITION

Event date: 10/07/2002
Event: INVESTIGATION WORKPLAN APPROVED

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Event date:	10/07/2002
Event:	INVESTIGATION COMPLETE
Event date:	10/10/2002
Event:	CMI WORKPLAN APPROVED
Event date:	03/05/2004
Event:	INVESTIGATION COMPLETE
Event date:	06/04/2004
Event:	INVESTIGATION WORKPLAN APPROVED
Event date:	10/04/2004
Event:	INVESTIGATION COMPLETE
Event date:	04/26/2005
Event:	STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION
Event date:	07/10/2006
Event:	CMS COMPLETE
Event date:	07/27/2006
Event:	DATE FOR PUBLIC NOTICE ON PROPOSED REMEDY
Event date:	11/30/2006
Event:	REMEDY DECISION
Event date:	11/30/2006
Event:	REMEDY DECISION
Event date:	01/19/2007
Event:	INSTITUTIONAL CONTROLS ESTABLISHED-GOVERNMENTAL CONTROL
Event date:	02/02/2007
Event:	STABILIZATION/INTERIM MEASURES DECISION-PRIMARY MEAS IS SOURCE REMOVL &/OR TRT
Event date:	04/18/2007
Event:	STABILIZATION CONSTRUCTION COMPLETED - PRIMARY MEAS SOURCE REMOVAL AND-OR TRTMT
Event date:	07/27/2007
Event:	INSTITUTIONAL CONTROLS ESTABLISHED-GOVERNMENTAL CONTROL
Event date:	09/06/2007
Event:	REMEDY CONSTRUCTION
Event date:	09/06/2007
Event:	REMEDY CONSTRUCTION-REMEDY CONSTRUCTED
Event date:	02/01/2008
Event:	CA805
Event date:	03/30/2011
Event:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

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Event date: 03/30/2011
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 08/06/2012
Event: INSTITUTIONAL CONTROLS ESTABLISHED-PROPRIETARY CONTROL

Event date: 01/30/2015
Event: INVESTIGATION IMPLEMENTATION BEGUN

Event date: 04/27/2016
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: Not reported
Event: RFA NEED BY ANOTHER AGCY

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/24/2004
Date achieved compliance: 04/04/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/02/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/20/1992
Date achieved compliance: 01/01/1993
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 11/20/1991
Date achieved compliance: 01/01/1992
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported

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Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/12/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/12/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D

TE CONNECTIVITY LTD (Continued) **1000170323**

Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/12/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General

TE CONNECTIVITY LTD (Continued) **1000170323**

Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/04/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988

TE CONNECTIVITY LTD (Continued) **1000170323**

Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989

TE CONNECTIVITY LTD (Continued) **1000170323**

Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State

TE CONNECTIVITY LTD (Continued) **1000170323**

Enforcement action:	INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date:	05/06/1992
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported
Regulation violated:	FR - 268.7
Area of violation:	LDR - General
Date violation determined:	08/30/1988
Date achieved compliance:	04/21/1989
Violation lead agency:	State
Enforcement action:	REFERRAL TO ATTORNEY GENERAL
Enforcement action date:	04/27/1990
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported
Regulation violated:	FR - 268 ALL
Area of violation:	LDR - General
Date violation determined:	08/30/1988
Date achieved compliance:	04/21/1989
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	01/06/1989
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported
Regulation violated:	FR - 264.70-77.E
Area of violation:	TSD - General
Date violation determined:	08/30/1988
Date achieved compliance:	04/21/1989
Violation lead agency:	State
Enforcement action:	FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date:	05/11/1992
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	425000
Paid penalty amount:	Not reported
Regulation violated:	FR - 268 ALL
Area of violation:	LDR - General
Date violation determined:	08/30/1988
Date achieved compliance:	04/21/1989
Violation lead agency:	State
Enforcement action:	FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY

TE CONNECTIVITY LTD (Continued) **1000170323**

Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/02/1988
Date achieved compliance: 08/19/1988
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992

TE CONNECTIVITY LTD (Continued) **1000170323**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/02/1988
Date achieved compliance: 08/19/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/16/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 07/07/1986
Date achieved compliance: 07/17/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/24/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 02/24/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/04/2004
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/03/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 03/26/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/31/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/13/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/20/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 01/01/1993
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 06/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/20/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 01/01/1992
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 09/30/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/03/1992
Evaluation lead agency: State

Evaluation date: 09/30/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/03/1992
Evaluation lead agency: State

Evaluation date: 03/23/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/30/1990
Evaluation lead agency: State

Evaluation date: 03/13/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/30/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 04/21/1989
Evaluation lead agency: State

TE CONNECTIVITY LTD (Continued) **1000170323**

Evaluation date: 08/30/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 04/21/1989
Evaluation lead agency: State

Evaluation date: 08/02/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 08/19/1988
Evaluation lead agency: State

Evaluation date: 07/07/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/17/1986
Evaluation lead agency: State

RCRA-LQG:
Date form received by agency: 07/17/2018
Facility name: TE CONNECTIVITY LTD
Facility address: 305 CONSTITUTION DR.
MENLO PARK, CA 94025-0000
EPA ID: CAD009125527
Mailing address: CONSTITUTION DR.
MENLO PARK, CA 94025-0000
Contact: STEPHEN DOUGLAS
Contact address: PASEO PADRE PKWY
FREMONT, CA 94555
Contact country: US
Contact telephone: 650-361-3022
Contact email: SDOUGLAS@TE.COM
EPA Region: 09
Land type: Private
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: HIBISCUS PROPERTIES LLC
Owner/operator address: HACKER WAY
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-308-7300

TE CONNECTIVITY LTD (Continued) **1000170323**

Owner/operator email: INFO@FACEBOOK.COM
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/04/2014
Owner/Op end date: Not reported

Owner/operator name: TE CONNECTIVITY LTD
Owner/operator address: CONSTITUTION DR.
MENLO PARK, CA 94025
Owner/operator country: US
Owner/operator telephone: 650-361-3022
Owner/operator email: SDOUGLAS@TE.COM
Owner/operator fax: 650-361-3696
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1999
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: D001

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U196
. Waste name: PYRIDINE

Historical Generators:
Date form received by agency: 03/07/2018
Site name: TE CONNECTIVITY LTD
Classification: Large Quantity Generator

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121

TE CONNECTIVITY LTD (Continued) **1000170323**

for a list of metals)

. Waste code: 133
. Waste name: Aqueous solution with 10% or more total organic residues

. Waste code: 135
. Waste name: Unspecified aqueous solution

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 223
. Waste name: Unspecified oil-containing waste

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 512
. Waste name: Other empty containers 30 gallons or more

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/25/2016
Site name: TYCO ELECTRONICS CORPORATION
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

. Waste code: P003
. Waste name: 2-PROPENAL (OR) ACROLEIN

. Waste code: P005
. Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

TE CONNECTIVITY LTD (Continued) **1000170323**

Date form received by agency: 09/17/2014
Site name: TYCO ELECTRONICS CORP
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/01/2014
Site name: TYCO ELECTRONICS CORP.
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U133
. Waste name: HYDRAZINE (R,T)

Date form received by agency: 03/16/2012
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: 132
. Waste name: Aqueous solution w/metals (< restricted levels and see waste code 121 for a list of metals)

. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D026
. Waste name: CRESOL

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: LABP
. Waste name: LAB PACK

. Waste code: P015
. Waste name: BERYLLIUM

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: P029
. Waste name: COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P087
. Waste name: OSMIUM OXIDE OSO4, (T-4)- (OR) OSMIUM TETROXIDE

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: P099
. Waste name: ARGENTATE (1-), BIS(CYANO-C)-, POTASSIUM (OR) POTASSIUM SILVER CYANIDE

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U160
. Waste name: 2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)

Date form received by agency: 09/29/2010
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D038
. Waste name: PYRIDINE

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U082
. Waste name: 2,6-DICHLOROPHENOL (OR) PHENOL, 2,6-DICHLORO-

. Waste code: U201
. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U202
. Waste name: 1,2-BENZISOTHIAZOL-3(2H)-ONE, 1,1-DIOXIDE, & SALTS

. Waste code: U208
. Waste name: 1,1,1,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,1,2-TETRACHLORO-

. Waste code: U209
. Waste name: 1,1,2,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,2,2-TETRACHLORO-

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

. Waste code: U244
. Waste name: THIOPEROXYDICARBONIC DIAMIDE [(H2N)C(S)]2S2, TETRAMETHYL- (OR) THIRAM

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

Date form received by agency: 02/27/2008
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 02/27/2006
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/25/2004
Site name: TYCO ELECTRONICS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 01/27/2003
Site name: TYCO ELECTRONICS CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND

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F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

Date form received by agency: 02/26/2002
Site name: RAYCHEM CORPORATION (TYCO ELECTRONICS)
Classification: Large Quantity Generator

. Waste code: 121
. Waste name: Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)

. Waste code: 122
. Waste name: Alkaline solution without metals (pH > 12.5)

. Waste code: 141
. Waste name: Off-specification, aged, or surplus inorganics

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. Waste code: 181
. Waste name: Other inorganic solid waste

. Waste code: 212
. Waste name: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 214
. Waste name: Unspecified solvent mixture

. Waste code: 252
. Waste name: Other still bottom waste

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 341
. Waste name: Organic liquids (nonsolvents) with halogens

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 461
. Waste name: Degreasing sludge

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: 591
. Waste name: Baghouse waste

. Waste code: 724
. Waste name: Liquids with lead > 500 mg/l

. Waste code: 725
. Waste name: Liquids with mercury > 20 mg/l

. Waste code: 791
. Waste name: Liquids with pH < 2

. Waste code: 792
. Waste name: Liquids with pH < 2 with metals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

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. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P098

TE CONNECTIVITY LTD (Continued) **1000170323**

. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

Date form received by agency: 10/12/2000
Site name: RAYCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: RAYCHEM CORPORATION-MAIN SITE
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 03/11/1996
Site name: RAYCHEM CORPORATION-MAIN SITE
Classification: Large Quantity Generator

Date form received by agency: 04/20/1994
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 02/21/1992
Site name: RAYCHEM - MAIN SITE
Classification: Large Quantity Generator

Date form received by agency: 04/30/1990
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Site name: RAYCHEM CORP
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE

TE CONNECTIVITY LTD (Continued) **1000170323**

FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 10272

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 700

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 6079

Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 89

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 10354

Waste code: D008
Waste name: LEAD
Amount (Lbs): 15325

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 28

Waste code: D011
Waste name: SILVER
Amount (Lbs): 263

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 10180

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 10180

TE CONNECTIVITY LTD (Continued) **1000170323**

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 10180

Waste code: LABP
Waste name: LAB PACK
Amount (Lbs): 6969

Waste code: P003
Waste name: ACROLEIN
Amount (Lbs): 7

Waste code: P005
Waste name: ALLYL ALCOHOL
Amount (Lbs): 7

Corrective Action Summary:
Event date: 05/01/1986
Event: LEAD AGENCY DETERMINATION

Event date: 05/01/1986
Event: NCAPS RANKING/PRIORITY

Event date: 05/01/1986
Event: PA OR CERCLA INSPECTION

Event date: 08/01/1986
Event: PA OR CERCLA INSPECTION

Event date: 10/02/1989
Event: RFA COMPLETED

Event date: 04/11/1994
Event: CA PRIORITIZATION-MEDIUM CA PRIORITY

Event date: 04/11/1994
Event: STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO STABILIZATION

Event date: 06/26/1996
Event: 3004(U) C/A UNDER PERMIT

Event date: 06/26/1996
Event: INVESTIGATION IMPOSITION

Event date: 10/07/2002
Event: INVESTIGATION WORKPLAN APPROVED

Event date: 10/07/2002
Event: INVESTIGATION COMPLETE

TE CONNECTIVITY LTD (Continued) **1000170323**

Event date: 10/10/2002
Event: CMI WORKPLAN APPROVED

Event date: 03/05/2004
Event: INVESTIGATION COMPLETE

Event date: 06/04/2004
Event: INVESTIGATION WORKPLAN APPROVED

Event date: 10/04/2004
Event: INVESTIGATION COMPLETE

Event date: 04/26/2005
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 07/10/2006
Event: CMS COMPLETE

Event date: 07/27/2006
Event: DATE FOR PUBLIC NOTICE ON PROPOSED REMEDY

Event date: 11/30/2006
Event: REMEDY DECISION

Event date: 11/30/2006
Event: REMEDY DECISION

Event date: 01/19/2007
Event: INSTITUTIONAL CONTROLS ESTABLISHED-GOVERNMENTAL CONTROL

Event date: 02/02/2007
Event: STABILIZATION/INTERIM MEASURES DECISION-PRIMARY MEAS IS SOURCE REMOVL &/OR TRT

Event date: 04/18/2007
Event: STABILIZATION CONSTRUCTION COMPLETED - PRIMARY MEAS SOURCE REMOVAL AND-OR TRTMT

Event date: 07/27/2007
Event: INSTITUTIONAL CONTROLS ESTABLISHED-GOVERNMENTAL CONTROL

Event date: 09/06/2007
Event: REMEDY CONSTRUCTION

Event date: 09/06/2007
Event: REMEDY CONSTRUCTION-REMEDY CONSTRUCTED

Event date: 02/01/2008
Event: CA805

Event date: 03/30/2011
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 03/30/2011
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS

TE CONNECTIVITY LTD (Continued) **1000170323**

DATE

Event date: 08/06/2012
Event: INSTITUTIONAL CONTROLS ESTABLISHED-PROPRIETARY CONTROL

Event date: 01/30/2015
Event: INVESTIGATION IMPLEMENTATION BEGUN

Event date: 04/27/2016
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: Not reported
Event: RFA NEED BY ANOTHER AGCY

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 02/24/2004
Date achieved compliance: 04/04/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/02/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/20/1992
Date achieved compliance: 01/01/1993
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 11/20/1991
Date achieved compliance: 01/01/1992
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60

TE CONNECTIVITY LTD (Continued) **1000170323**

Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/12/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/12/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General

TE CONNECTIVITY LTD (Continued) **1000170323**

Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/12/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 11/08/1991
Date achieved compliance: 01/03/1992
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990

TE CONNECTIVITY LTD (Continued) **1000170323**

Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/04/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 12/10/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/08/1990
Date achieved compliance: 09/30/1990
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989

TE CONNECTIVITY LTD (Continued) **1000170323**

Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State

TE CONNECTIVITY LTD (Continued) **1000170323**

Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY

TE CONNECTIVITY LTD (Continued) **1000170323**

Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: REFERRAL TO ATTORNEY GENERAL
Enforcement action date: 04/27/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992

TE CONNECTIVITY LTD (Continued) **1000170323**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/11/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 425000
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 08/30/1988
Date achieved compliance: 04/21/1989
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/02/1988
Date achieved compliance: 08/19/1988
Violation lead agency: State
Enforcement action: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement action date: 05/06/1992
Enf. disposition status: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/02/1988
Date achieved compliance: 08/19/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/16/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 07/07/1986
Date achieved compliance: 07/17/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/24/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 02/24/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/04/2004
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/03/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 03/26/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/31/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Evaluation lead agency: State

Evaluation date: 06/13/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/20/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 01/01/1993
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 06/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/20/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 01/01/1992
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 09/30/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/03/1992
Evaluation lead agency: State

Evaluation date: 09/30/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/03/1992
Evaluation lead agency: State

Evaluation date: 03/23/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/30/1990
Evaluation lead agency: State

Evaluation date: 03/13/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/30/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 04/21/1989
Evaluation lead agency: State

Evaluation date: 08/30/1988

TE CONNECTIVITY LTD (Continued) **1000170323**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 04/21/1989
Evaluation lead agency: State

Evaluation date: 08/02/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 08/19/1988
Evaluation lead agency: State

Evaluation date: 07/07/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/17/1986
Evaluation lead agency: State

ENVIROSTOR:
Facility ID: 80001600
Status: Certified / Operation & Maintenance
Status Date: 09/26/2012
Site Code: 520017
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 80
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: WM
Program Manager: Robert Boggs
Supervisor: Julie Pettijohn
Division Branch: Cleanup Berkeley
Assembly: 24
Senate: 13
Special Program: Not reported
Restricted Use: YES
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.48056
Longitude: -122.1669
APN: 055244010, 055260080, 055260190, 055260200, 055260210, 055260220
Past Use: MANUFACTURING - CHEMICALS, MANUFACTURING - ELECTRONIC
Potential COC: Polychlorinated biphenyls (PCBs
Confirmed COC: Polychlorinated biphenyls (PCBs
Potential Description: SOIL
Alias Name: Facebook West Campus
Alias Type: Alternate Name
Alias Name: Menlo Park West Campus
Alias Type: Alternate Name
Alias Name: RAYCHEM CORPORATION
Alias Type: Alternate Name
Alias Name: 055244010
Alias Type: APN
Alias Name: 055260080
Alias Type: APN
Alias Name: 055260190
Alias Type: APN
Alias Name: 055260200
Alias Type: APN

TE CONNECTIVITY LTD (Continued) **1000170323**

Alias Name: 055260210
Alias Type: APN
Alias Name: 055260220
Alias Type: APN
Alias Name: CAD009125527
Alias Type: EPA Identification Number
Alias Name: 110000482399
Alias Type: EPA (FRS #)
Alias Name: 200226
Alias Type: Site Code - Historical
Alias Name: 520017
Alias Type: Project Code (Site Code)
Alias Name: 41280137
Alias Type: Envirostor ID Number
Alias Name: 80001600
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 04/11/1994
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Selection and Statement of Basis
Completed Date: 11/30/2006
Comments: Final Notice of Remedy Selection cover letter to Tyco

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 04/17/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/25/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/27/2007
Comments: Provided county a summary of cleanup activities

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 02/07/2007

TE CONNECTIVITY LTD (Continued) **1000170323**

Comments: SCS Engineer annual LUC certification

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 02/12/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/05/2018
Comments: RCRA Ready for Anticipated Use (RAU).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 06/26/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: Offsite Soil
Completed Document Type: RFI Report
Completed Date: 10/04/2004
Comments: RFI Report and Approval

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: Offsite Soil
Completed Document Type: RFI Workplan
Completed Date: 06/04/2004
Comments: RFI Workplan Approval - Offsite Soil

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 07/27/2006
Comments: Fact Sheet for Remedy Selection

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Study Report
Completed Date: 07/10/2006
Comments: CMS technical completeness letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Constructed: Operating Properly & Successfully
Completed Date: 09/06/2007
Comments: Corrective Action -Corrective Measures Implementation Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 08/01/1986
Comments: Not reported

Completed Area Name: PROJECT WIDE

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 03/05/2004
Comments: west end soil, sitewide GW, HHRA, ERA

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 05/01/1986
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/01/2008
Comments: Groundwater Monitoring Report and Approval

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/20/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Workplan
Completed Date: 02/02/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Implementation Report
Completed Date: 04/18/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/25/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 03/21/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/19/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/23/2011

TE CONNECTIVITY LTD (Continued) **1000170323**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/06/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/03/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/12/2014
Comments: the annual inspection report documents site conditions as related to restrictions set forth in the Land Use Covenant (LUC), and compliance with the LUC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/20/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/24/2017
Comments: The Revised Ground-water Sampling Report, September 2016 documents the groundwater monitoring activities and results for the semi-annual groundwater monitoring onsite. DTSC has reviewed the February 2017 revision and has no comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/12/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 07/10/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/27/2005
Comments: In file

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Document Type: Technical Report
Completed Date: 03/30/2011
Comments: Signed HHEI.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/18/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/30/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/24/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/03/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/06/2007
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: East and Offsite of the facility
Completed Document Type: RFI Report
Completed Date: 10/07/2002
Comments: RFI East End Area 6 approval letter 10-7-2002

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: East and Offsite of the facility
Completed Document Type: RFI Workplan
Completed Date: 10/07/2002
Comments: East side offsite groundwater

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measure Implementation Workplan
Completed Date: 10/10/2002
Comments: West side Area #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/10/2013
Comments: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 04/22/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/21/2015
Comments: Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/08/2016
Comments: This document reports the groundwater monitoring results from September 2015.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 12/15/2015
Comments: This Annual Site Inspection report complies with the annual site inspection requirements of Section 4.6 the Land Use Covenant for the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/05/2016
Comments: The semi-annual groundwater monitoring report documents the groundwater monitoring performed in accordance with Operation and Maintenance requirements at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 04/14/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/30/2013

TE CONNECTIVITY LTD (Continued) **1000170323**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/16/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 04/24/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/05/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/09/2015
Comments: No action required

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/09/2015
Comments: No action required

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/27/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 01/30/2015
Comments: Field work

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/16/2015
Comments: Not reported

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/30/2015
Comments: Fieldwork - 66 soil borings were advanced, 151 soil samples were collected.

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Area Name: Building 23
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/27/2015
Comments: Not reported

Completed Area Name: Building 23
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/06/2015
Comments: Fieldwork - 18 Soil Borings were advanced, 54 soil samples were collected.

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 07/23/2015
Comments: Not reported

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/21/2016
Comments: Soil management and demolition activities were completed at MPK 21 per the November 6, 2015 Soil Management Plan.

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/20/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/24/2015
Comments: Not reported

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 11/17/2015
Comments: The MPK21 Soil Management Plan describes soil management activities associated with the development of Building 21 at 307, 308, and 309 Constitution Drive.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/21/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Construction Complete
Completed Date: 09/06/2007
Comments: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Remedy Selected
Completed Date: 11/30/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Human Exposure Controlled
Completed Date: 03/30/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/29/2016
Comments: This letter transmits DTSC's estimate of oversight costs for the site for the time period July 1, 2016 - June 30, 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 09/14/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Groundwater Migration Controlled
Completed Date: 04/27/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/17/2014
Comments: correspondence received

Completed Area Name: Building 22
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 02/17/2016
Comments: The Work Plan for Phase II Investigation, MPK 22 proposes additional environmental investigation in the vicinity of the planned future Building MPK22. Investigation activities will include soil sampling, grab groundwater sampling, and the installation of soil vapor wells.

Completed Area Name: Building 23
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 03/27/2015
Comments: DTSC has reviewed and approved the use of the Soil Management Plan for the West Campus (Building 20) for the Building 23 area.

Completed Area Name: Building 23
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/08/2015

TE CONNECTIVITY LTD (Continued) **1000170323**

Comments:	Not reported
Completed Area Name:	Building 22
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	06/30/2016
Comments:	The soil investigation was completed in accordance with the MPK 22 Soil Investigation Work Plan.
Completed Area Name:	Building 22
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	07/22/2016
Comments:	This soil management plan documents soil management protocols to take place during redevelopment activities at Building 22.
Completed Area Name:	Building 22
Completed Sub Area Name:	Not reported
Completed Document Type:	Soils Management Plan
Completed Date:	07/22/2016
Comments:	The MPK 22 Soil Management Plan describes soil management procedures to be followed in the area to be redeveloped into Building 22.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	11/18/2015
Comments:	The Work Plan to Profile Soil for Off Site Disposal supplements the prior Soil Quality Investigation (Cornerstone, July 2015) and proposes additional sampling to further characterize onsite soils for offsite disposal.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Soils Management Plan
Completed Date:	12/06/2016
Comments:	DTSC has reviewed and approved a variance for the pile type to be used for the Caltrans bridge in the MPK 21 Soil Management Plan Area.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Soils Management Plan
Completed Date:	12/15/2016
Comments:	The Soil Management Plan for Utility Line Installation MPK 21 22 23 describes soil management protocols for the utility installation planned for December 2016.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	05/03/2017
Comments:	The Revised Phase II Investigation Report, dated October 2016, revised and submitted May 2017, describes the results from the investigation activities at 301-306 Constitution Drive. DTSC's comments have been addressed.
Completed Area Name:	PROJECT WIDE

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 12/15/2016
Comments: The revised Soil Management Plan for Utility Corridor MPK 21, 22, and 23 describes soil management protocols proposed for the utility installation planned for December 2016. DTSC's comments on previous drafts of the report have been adequately addressed, and DTSC approves the Soil Management Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/06/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 09/22/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 12/31/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/30/2006
Comments: Appendix G - Operation & Maintenance Plan from Remedy Selection and Statement of Basis

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 11/06/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/29/2017
Comments: The Annual Oversight Cost Estimate provides an estimate for DTSC's oversight costs for the period starting July 1, 2017 and ending June 30, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Date:	01/30/2017
Comments:	The Pile Type Variance Request proposes 8 augercast pressure-grouted piles in locations where limited access precludes the previously approved augercast pressure grouted displacement piles. DTSC has reviewed the proposal and approves the variance.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	04/17/2017
Comments:	The Work Plan for Additional Soil Vapor Monitoring, Proposed Building MPK 22 proposes additional soil vapor monitoring in the general area of the proposed MPK 22 building. The March 24, 2017 Work Plan has adequately addressed previous comments from the Department of Toxic Substances Control (DTSC). DTSC approves the Work Plan.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	06/09/2017
Comments:	DTSC reviewed the Indoor Air Sampling Reports for Building 305B and 305C from 2014 and 2015. In response to DTSC comments, another indoor air sampling event will be conducted and reported to DTSC. This addresses DTSC's comments.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	05/23/2017
Comments:	The Work Plan to Decommission 5 Groundwater Monitoring Wells, April 2017, proposes removal of 5 onsite groundwater wells due to the ongoing construction to redevelop the site. After construction is complete, Tyco will work with DTSC to replace the wells in-kind.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Soils Management Plan
Completed Date:	05/11/2017
Comments:	The Work Plan for Soil Removal Activities, Park/Open Space at MPK 21 propose soil removal activities to be conducted as part of construction of Building MPK21 and in accordance with the DTSC-approved MPK 21 Soil Management Plan. DTSC has reviewed the Work Plan and approves it.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	08/08/2017
Comments:	The indoor air sampling work plan proposes indoor air sampling at Building 305. DTSC has reviewed the work plan and approves the document.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	11/09/2017
Comments:	DTSC has reviewed the request for a variance to the MPK 21 SMP and

TE CONNECTIVITY LTD (Continued) **1000170323**

approves the request.

Completed Area Name: Building 21
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/17/2018
Comments: Well decommissioning plan concurrence letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 01/19/2007
Comments: Land Use Covenant

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 01/04/2002
Comments: Interim Remedial Measures Addendum #4 Implementation Summary Area 6 (Chem Plant)

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 10/02/1989
Comments: RCRA Facility Assessment Completed, RFA report dated 9/1989, site formerly known as Raychem

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 02/19/2001
Comments: Interim Measures Implementation and bldgs. P and Y Demolition Report Area 6 (Chem Plant)

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 05/07/2003
Comments: Interim Removal Reports

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: Offsite Soil
Completed Document Type: Interim Measures Questionnaire
Completed Date: 04/26/2005
Comments: No further action on the "offsite soil" area. However, the "onsite" will go to CMS process. The facility called "Closure Report - Soil Removal/Disposal" Dated Dec 2004 instead of IM report.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Schedule Revised Date: Not reported

Facility ID: 41280137
Status: Refer: RCRA
Status Date: 08/01/1994
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Berkeley
Assembly: 24
Senate: 13
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.48056
Longitude: -122.1669
APN: 055244010
Past Use: NONE SPECIFIED
Potential COC: * HALOGENATED ORGANIC COMPOUNDS * HALOGENATED SOLVENTS * HYDROCARBON SOLVENTS * Laboratory Waste Chemicals * Metals - Other Inorganic Solid Waste * Metals - Sludge * OIL/WATER SEPARATION SLUDGE * OTHER STILL BOTTOM WASTE * OXYGENATED SOLVENTS * CONTAMINATED SOIL * ACID SOLUTION 2>PH WITH METALS * Sludge - Paint * STILL BOTTOMS WITH HALOGENATED ORGANICS * TANK BOTTOM WASTES * UNSPECIFIED ACID SOLUTION * UNSPECIFIED OIL CONTAINING WASTE * UNSPECIFIED SLUDGE WASTE * UNSPECIFIED SOLVENT MIXTURES * WASTE OIL & MIXED OIL * ADHESIVES * EMPTY CONTAINERS, LESS THAN 30 GALLONS * OTHER PESTICIDE CONTAINERS, 30 GALLONS OR MORE Arsenic Lead Polychlorinated biphenyls (PCBs Cadmium and compounds Cyanide (free Mercury and compounds Nickel Thallium and compounds
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: TYCO ELECTRONICS CORPORATION
Alias Type: Alternate Name
Alias Name: 055244010
Alias Type: APN
Alias Name: CAD009125527
Alias Type: EPA Identification Number
Alias Name: 110000482399
Alias Type: EPA (FRS #)
Alias Name: SLT2O099105
Alias Type: GeoTracker Global ID
Alias Name: P23049
Alias Type: PCode
Alias Name: 41280137
Alias Type: Envirostor ID Number
Alias Name: 80001600
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE

TE CONNECTIVITY LTD (Continued) **1000170323**

Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/20/1991
Comments: Raychem Corporation submitted a PEA to the Dept on 5/17/91. Results of the PEA indicate PCB in soil above extremely hazardous ttlc. Contaminated GW under site. A residential neighborhood and a school are located less than 200' to the South of site. A tidal slough and sensitive wetland are adjacent to the north boundary of the site. High-tech chemical, plastics and materials manufacturer operated at site since 1965. PEA submitted in May 1991 indicates that nickel and cadmium may be present in soils above their respective TTLC and/or STLC. Elevated levels of solvents found in GW under the site. PCB found in soils at levels above the extremely hazardous waste TTLC. PCB has also migrated off-site via surface runoff. Draft ISE determination and RAO sent to TLO for review on June 11, 1991.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 01/13/1988
Comments: Site screening done: Site is an active TSD. SI done 8/86. Subsurface PCB contamination. DCE, CD and Pb in groundwater. > drinking. Pending action by RCRA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 08/01/1980
Comments: Facility identified: active site identified independent of driveby.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CPS-SLIC:
Site Name: RAYCHEM CORPORATION
Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 03/08/2001
Global Id: SLT2O099105
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 41280137
Latitude: 37.481632
Longitude: -122.164963
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

HIST UST:

File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000014125
Facility Type:	Other
Other Type:	Not reported
Contact Name:	MARK GREEN
Telephone:	4153615519
Owner Name:	RAYCHEM CORPORATION
Owner Address:	300 CONSTITUTION DRIVE
Owner City,St,Zip:	MENLO PARK, CA 94025
Total Tanks:	0005
Tank Num:	001
Container Num:	5
Year Installed:	1968
Tank Capacity:	00000168
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	002
Container Num:	4
Year Installed:	1971
Tank Capacity:	00000200
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	16
Leak Detection:	None
Tank Num:	003
Container Num:	3
Year Installed:	1980
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	1
Year Installed:	1974
Tank Capacity:	00010429
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	2
Year Installed:	1974

TE CONNECTIVITY LTD (Continued) **1000170323**

Tank Capacity: 00010429
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

DEED:
Envirostor ID: 80001600
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: CORRECTIVE ACTION
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 01/19/2007
File Name: Envirostor Land Use Restrictions

Envirostor ID: 80001600
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: CORRECTIVE ACTION
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 08/06/2012
File Name: Envirostor Land Use Restrictions

CHMIRS:
OES Incident Number: 10-0073
OES notification: 01/05/2010
OES Date: Not reported
OES Time: Not reported
Date Completed: **Not reported**
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Industrial Plant
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1445
Year:	2010
Agency:	Tyco Electronics Corp
Incident Date:	12/21/2009
Admin Agency:	San Mateo County Environmental Health
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Diesel Fuel
Quantity Released:	40673
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	**Historical Spill***Per caller, a damaged saddle tank caused the release of fuel to an area adjacent to a storm drain. Clean-up was completed by the Fire Department.

2020 COR ACTION:

EPA ID:	CAD009125527
Region:	9
Action:	Remedy Construction

PADS:

EPAID:	CAD009125527
Facility name:	TYCO ELECTRONICS
Facility Address:	OFF-SITE STORMWATER SWALE AREA, RAI MENLO PARK, CA 94025
Facility country:	US
Generator:	Yes
Storer:	No
Transporter:	No

TE CONNECTIVITY LTD (Continued) **1000170323**

Disposer: No
Research facility: No
Smelter: No
Facility owner name: TYCO ELECTRONICS
Contact title: Not reported
Contact name: ROGER RILEY
Contact tel: 650-361-3210
Contact extension: Not reported
Contact Email: Not reported
Mailing address: TYCO ELECTRONICS, 304 CONSTITUTION
MENLO PARK, CA 94025
Mailing country: US
Cert. date: 07/26/2000

FINDS:

Registry ID: 110070205541

Environmental Interest/Information System
TSCA SUBMITTER

OSHA ESTABLISHMENT

Registry ID: 110055790390

Environmental Interest/Information System
STATE MASTER

Registry ID: 110070087516

Environmental Interest/Information System
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000170323
Registry ID: 110000482399
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110000482399

Envid: 1000170323
Registry ID: 110070087516
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110070087516

EMI:
Year: 1987
County Code: 41

TE CONNECTIVITY LTD (Continued) **1000170323**

Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	3079
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	48
Reactive Organic Gases Tons/Yr:	36
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	5
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	27
Part. Matter 10 Micrometers and Smllr Tons/Yr:	24

Year:	1990
County Code:	41
Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	3089
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	98
Reactive Organic Gases Tons/Yr:	75
Carbon Monoxide Emissions Tons/Yr:	2
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	19
Part. Matter 10 Micrometers and Smllr Tons/Yr:	17

Year:	1995
County Code:	41
Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	3089
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	55
Reactive Organic Gases Tons/Yr:	49
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	5
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	25
Part. Matter 10 Micrometers and Smllr Tons/Yr:	22

Year:	1996
County Code:	41
Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	3079
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	52
Reactive Organic Gases Tons/Yr:	45
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	7
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	20
Part. Matter 10 Micrometers and Smllr Tons/Yr:	18

Year:	1997
County Code:	41
Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	3089
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	35
Reactive Organic Gases Tons/Yr:	30
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	7
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	19
Part. Matter 10 Micrometers and Smllr Tons/Yr:	17

Year:	1998
County Code:	41
Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	3089
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	22
Reactive Organic Gases Tons/Yr:	16
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	9
Part. Matter 10 Micrometers and Smllr Tons/Yr:	8

Year:	1999
County Code:	41
Air Basin:	SF
Facility ID:	272
Air District Name:	BA
SIC Code:	8731
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0

TE CONNECTIVITY LTD (Continued) **1000170323**

Particulate Matter Tons/Yr: 9
Part. Matter 10 Micrometers and Smllr Tons/Yr: 8

Year: 2000
County Code: 41
Air Basin: SF
Facility ID: 272
Air District Name: BA
SIC Code: 8731
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 7
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 1
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 9
Part. Matter 10 Micrometers and Smllr Tons/Yr: 8

HIST CORTESE:
Region: CORTESE
Facility County Code: 41
Reg By: CALSI
Reg Id: 41280137

NPDES:
Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported
Regulatory Measure ID: Not reported
Place ID: Not reported
Order Number: Not reported
WDID: 2 41C373001
Regulatory Measure Type: Construction
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: Not reported
Discharge Name: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Status: Terminated
Status Date: 08/12/2016
Operator Name: Hibiscus Properties
Operator Address: 1 Hacker Way
Operator City: Menlo Park
Operator State: California
Operator Zip: 94025

NPDES as of 03/2018:
NPDES Number: CAS000002
Status: Terminated

TE CONNECTIVITY LTD (Continued) **1000170323**

Agency Number:	0
Region:	2
Regulatory Measure ID:	454848
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C373001
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/22/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/09/2016
Discharge Name:	Hibiscus Properties
Discharge Address:	1 Hacker Way
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	454848
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C373001
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/09/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2015
Processed Date:	05/22/2015
Status:	Terminated
Status Date:	08/12/2016
Place Size:	7.71
Place Size Unit:	Acres
Contact:	Joe Francini
Contact Title:	Not reported
Contact Phone:	650-222-5991
Contact Phone Ext:	Not reported
Contact Email:	jfrancini@level10gc.com
Operator Name:	Hibiscus Properties
Operator Address:	1 Hacker Way
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Juergen Decker
Operator Contact Title:	Not reported
Operator Contact Phone:	415-290-6255
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	juergen@fb.com

TE CONNECTIVITY LTD (Continued) **1000170323**

Operator Type:	Private Business
Developer:	Hibiscus Properties
Developer Address:	1 Hacker Way
Developer City:	Menlo Park
Developer State:	California
Developer Zip:	94025
Developer Contact:	Juergen Decker
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	Y
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	Juergen Decker
Certifier Title:	Project Manager
Certification Date:	09-MAY-15
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Facility Status:	Active
NPDES Number:	CAS000001
Region:	2
Agency Number:	0
Regulatory Measure ID:	182954
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	2 41I016702
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/07/2001
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	501 Oakside Avennue
Discharge Name:	Tyco Electronics Corp
Discharge City:	Redwood City
Discharge State:	California
Discharge Zip:	94063
Status:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	182954
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41I016702
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/07/2001
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Tyco Electronics Corp
Discharge Address:	305 Constitution Dr
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	182954
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 41I016702
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	08/07/2001
Status:	Active
Status Date:	08/07/2001
Place Size:	46
Place Size Unit:	Acres
Contact:	Stephen Douglas
Contact Title:	Not reported
Contact Phone:	650-361-3022
Contact Phone Ext:	Not reported
Contact Email:	sdouglas@te.com
Operator Name:	Tyco Electronics Corp

TE CONNECTIVITY LTD (Continued) **1000170323**

Operator Address:	305 Constitution Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Stephen Douglas
Operator Contact Title:	Not reported
Operator Contact Phone:	650-361-3022
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	sdouglas@te.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	650-361-3022
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	JAMES OTOOLE
Certifier Title:	SEGMENT PRESIDENT
Certification Date:	18-JUN-15
Primary Sic:	3089-Plastics Products, NEC
Secondary Sic:	3082-Unsupported Plastics Profile Shapes
Tertiary Sic:	2821-Plastics Material and Synthetic Resins, and Nonvulcanizable Elastomers

Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41I016702
Regulatory Measure Type:	Industrial
Program Type:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	08/07/2001
Operator Name:	Tyco Electronics Corp
Operator Address:	501 Oakside Avennue
Operator City:	Redwood City
Operator State:	California
Operator Zip:	94063

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	182954
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41I016702
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/07/2001
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Tyco Electronics Corp
Discharge Address:	305 Constitution Dr
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	182954
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 41I016702
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2008
Processed Date:	08/07/2001

TE CONNECTIVITY LTD (Continued) **1000170323**

Status:	Active
Status Date:	08/07/2001
Place Size:	46
Place Size Unit:	Acres
Contact:	Stephen Douglas
Contact Title:	Not reported
Contact Phone:	650-361-3022
Contact Phone Ext:	Not reported
Contact Email:	sdouglas@te.com
Operator Name:	Tyco Electronics Corp
Operator Address:	305 Constitution Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Stephen Douglas
Operator Contact Title:	Not reported
Operator Contact Phone:	650-361-3022
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	sdouglas@te.com
Operator Type:	Private Business
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	California
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	650-361-3022
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	JAMES OTOOLE
Certifier Title:	SEGMENT PRESIDENT
Certification Date:	18-JUN-15
Primary Sic:	3089-Plastics Products, NEC
Secondary Sic:	3082-Unsupported Plastics Profile Shapes
Tertiary Sic:	2821-Plastics Material and Synthetic Resins, and Nonvulcanizable Elastomers

TE CONNECTIVITY LTD (Continued) **1000170323**

Facility Status:	Terminated
NPDES Number:	CAS000002
Region:	2
Agency Number:	0
Regulatory Measure ID:	454848
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	2 41C373001
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/22/2015
Termination Date Of Regulatory Measure:	08/09/2016
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	1 Hacker Way
Discharge Name:	Hibiscus Properties
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	454848
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C373001
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/22/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/09/2016
Discharge Name:	Hibiscus Properties
Discharge Address:	1 Hacker Way
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	454848
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C373001
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported

TE CONNECTIVITY LTD (Continued) **1000170323**

Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/09/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	05/09/2015
Processed Date:	05/22/2015
Status:	Terminated
Status Date:	08/12/2016
Place Size:	7.71
Place Size Unit:	Acres
Contact:	Joe Francini
Contact Title:	Not reported
Contact Phone:	650-222-5991
Contact Phone Ext:	Not reported
Contact Email:	jfrancini@level10gc.com
Operator Name:	Hibiscus Properties
Operator Address:	1 Hacker Way
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Juergen Decker
Operator Contact Title:	Not reported
Operator Contact Phone:	415-290-6255
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	juergen@fb.com
Operator Type:	Private Business
Developer:	Hibiscus Properties
Developer Address:	1 Hacker Way
Developer City:	Menlo Park
Developer State:	California
Developer Zip:	94025
Developer Contact:	Juergen Decker
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	Y
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N

TE CONNECTIVITY LTD (Continued) **1000170323**

Receiving Water Name:	San Francisco Bay
Certifier:	Juergen Decker
Certifier Title:	Project Manager
Certification Date:	09-MAY-15
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

WDS:

Facility ID:	San Francisco Bay 41I016702
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	6503613022
Facility Contact:	ADAIR ROBIN
Agency Name:	TYCO ELECTRONICS CORP
Agency Address:	304 Constitution Dr
Agency City,St,Zip:	Menlo Park 940251111
Agency Contact:	ADAIR ROBIN
Agency Telephone:	6503613022
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

TE CONNECTIVITY LTD (Continued) **1000170323**

CIWQS:

Agency:	Hibiscus Properties
Agency Address:	1 Hacker Way, Menlo Park, CA 94025
Place/Project Type:	Construction - Commercial
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 41C373001
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	05/22/2015
Termination Date:	08/09/2016
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.48051
Longitude:	-122.1669

Agency:	Tyco Electronics Corp
Agency Address:	305 Constitution Dr, Menlo Park, CA 94025
Place/Project Type:	Industrial - Plastics Products, NEC
SIC/NAICS:	Multiple
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 41I016702
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	08/07/2001
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.48206
Longitude:	-122.16756

CERS TANKS:

Site ID:	253305
CERS ID:	SLT2O099105
Site Name:	RAYCHEM CORPORATION
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker

TE CONNECTIVITY LTD (Continued) **1000170323**

Entity Name: MARK JOHNSON - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET, SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 500731
CERS ID: 268846
Site Name: TYCO ELECTRONICS CORP
CERS Description: Industrial Facility Storm Water

Affiliation:
Affiliation Type Desc: Owner/Operator
Entity Name: Tyco Electronics Corp
Entity Title: Operator
Affiliation Address: 501 Oakside Avennue
Affiliation City: Redwood City
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94063
Affiliation Phone: Not reported

Y159 **RAYCHEM CORPORATION** **CA HIST UST** **S106838049**
WNW **300 CONSTITUTION DRIVE** **CA DEED** **N/A**
1/2-1 **MENLO PARK, CA 94025** **CA EMI**
0.607 mi. **CA HAZNET**
3206 ft. **Site 2 of 2 in cluster Y** **CA HWP**
CA CERS

Relative:
Lower

Actual:
6 ft.

HIST UST:
File Number: 0002C1BA
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002C1BA.pdf
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

RAYCHEM CORPORATION (Continued) **S106838049**

Click here for Geo Tracker PDF:

DEED:
Envirostor ID: Not reported
Area: Not reported
Sub Area: Not reported
Site Type: Land Use Restrictions
Status: Not reported
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: HWMP Restrictions

Envirostor ID: CAD009125527
Area: Not reported
Sub Area: Not reported
Site Type: CLOSED
Status: CLOSED
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 01/19/2007
File Name: Envirostor Land Use Restrictions

EMI:
Year: 1987
County Code: 41
Air Basin: SF
Facility ID: 656
Air District Name: BA
SIC Code: 2821
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

HAZNET:
Site Name: FACEBOOK
Year: 2017
GEPAID: CAC002896488
Contact: KAREN SIEVERSON
Telephone: 6504609327
Mailing Name: Not reported
Mailing Address: 1 HACKER WAY
Mailing City,St,Zip: MENLO PARK, CA 94025
Gen County: San Mateo
TSD EPA ID: AZR000031823
TSD County: 99
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect

RAYCHEM CORPORATION (Continued) **S106838049**

Tons: 14.63
Cat Decode: Waste oil and mixed oil
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: San Mateo

Site Name: TE CONNECTIVITY LTD
Year: 2017
GEPAID: CAD009125527
Contact: STEPHEN DOUGLAS
Telephone: 6503613022
Mailing Name: Not reported
Mailing Address: 6900 PASEO PADRE PKWY
Mailing City,St,Zip: FREMONT, CA 945550000
Gen County: San Mateo
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 3.885
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: TE CONNECTIVITY LTD
Year: 2017
GEPAID: CAD009125527
Contact: STEPHEN DOUGLAS
Telephone: 6503613022
Mailing Name: Not reported
Mailing Address: 6900 PASEO PADRE PKWY
Mailing City,St,Zip: FREMONT, CA 945550000
Gen County: San Mateo
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.0005
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: TE CONNECTIVITY LTD
Year: 2017
GEPAID: CAD009125527
Contact: STEPHEN DOUGLAS
Telephone: 6503613022
Mailing Name: Not reported
Mailing Address: 6900 PASEO PADRE PKWY
Mailing City,St,Zip: FREMONT, CA 945550000
Gen County: San Mateo
TSD EPA ID: CAD059494310
TSD County: Santa Clara

RAYCHEM CORPORATION (Continued) **S106838049**

Waste Category: Baghouse waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 6.0995
Cat Decode: Baghouse waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Site Name: TE CONNECTIVITY LTD
Year: 2017
GEPAID: CAD009125527
Contact: STEPHEN DOUGLAS
Telephone: 6503613022
Mailing Name: Not reported
Mailing Address: 6900 PASEO PADRE PKWY
Mailing City,St,Zip: FREMONT, CA 945550000
Gen County: San Mateo
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.3105
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
2203 additional CA_HAZNET: record(s) in the EDR Site Report.

HWP:
EPA Id: CAD009125527
Cleanup Status: CLOSED
Latitude: 37.48056
Longitude: -122.1669
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: 200207, 520017
Assembly District: 24
Senate District: 13
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:
EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 11/18/1980

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1

RAYCHEM CORPORATION (Continued) **S106838049**

Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 07/20/1988

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION RECEIVED
Actual Date: 12/15/1989

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: Not reported
Event Description: New Variance - FINAL VARIANCE
Actual Date: 05/15/1989

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - DRAFT PERMIT
Actual Date: 04/08/1983

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 07/20/1983

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - TECHNICAL COMPLETE LETTER
Actual Date: 05/05/1983

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 11/10/1981

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION APPROVED
Actual Date: 03/20/1990

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 07/20/1983

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date: 04/08/1983

RAYCHEM CORPORATION (Continued) **S106838049**

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 09/23/1980

Closure:
EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: Closure - ISSUE CLOSURE VERIFICATION
Actual Date: 09/06/2007

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: Referred for closure to other agency - REFERRED FOR CLOSURE TO OTHER AGENCY
Actual Date: 03/21/1990

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: Closure - CLOSURE PLAN RECEIVED
Actual Date: 12/15/1989

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: Closure - CLOSURE PLAN APPROVED
Actual Date: 03/20/1990

Alias:
EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110000482399

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 200207

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Alias Type: Envirostor ID Number
Alias: 41280137

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 520017

EPA Id: CAD009125527
Facility Type: Historical - Non-Operating
Alias Type: Alternate Name
Alias: RAYCHEM CORPORATION

RAYCHEM CORPORATION (Continued) **S106838049**

Maintenance:
EPA Id: CAD009125527
Title: LUC for the Tyoc Electronics Corp. facility dated 1/19/2007.
Document Type: Deed Restriction / LUC Issued
Received Date: 01/19/2007

CERS TANKS:
Site ID: 497848
CERS ID: 110000482399
Site Name: TYCO ELECTRONICS CORPORATION
CERS Description: US EPA Air Emission Inventory System (EIS)

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Bo Yu
Entity Title: plant manager
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLOPARK
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Robin Adair
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: STEPHEN A DOUGLAS
Entity Title: EHS MGR
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLOPARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Public Contact
Entity Name: Stephen Douglas
Entity Title: Not reported
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLOPARK
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Stephen Douglas
Entity Title: Not reported

RAYCHEM CORPORATION (Continued) **S106838049**

Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLOPARK
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker
Entity Name: MARK JOHNSON SAN FRANCISCO BAY RWQCB REGN 2ND
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREETNA SUITE 1400
Affiliation City: OAKLAND
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 163982
CERS ID: 94025RYCHM300CO
Site Name: TE CONNECTIVITY LTD
CERS Description: Toxic Release Inventory

Affiliation:
Affiliation Type Desc: Facility Contact
Entity Name: STEPHEN DOUGLAS/EHS MGR
Entity Title: Not reported
Affiliation Address: 6900 PASEO PADRE PKWY
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94555
Affiliation Phone: 6503613022

Affiliation Type Desc: Company Official
Entity Name: Bo Yu
Entity Title: plant manager
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Owner
Entity Name: TE CONNECTIVITY LTD
Entity Title: Not reported
Affiliation Address: 1050 WESTLAKES DR.
Affiliation City: BERWYN
Affiliation State: PA
Affiliation Country: Not reported
Affiliation Zip: 193120000
Affiliation Phone: 6503613022

Affiliation Type Desc: Parent Company
Entity Name: TE CONNECTIVITY LTD
Entity Title: Not reported
Affiliation Address: 304 CONSTITUTION DR

RAYCHEM CORPORATION (Continued) **S106838049**

Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Public Contact
Entity Name: Stephen Douglas
Entity Title: Not reported
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: 6503613022

Affiliation Type Desc: Technical Contact
Entity Name: Stephen Douglas
Entity Title: Not reported
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: 6503613022

Site ID: 163982
CERS ID: CAD009125527
Site Name: TE CONNECTIVITY LTD
CERS Description: Hazardous Waste

Affiliation:
Affiliation Type Desc: Facility Contact
Entity Name: STEPHEN DOUGLAS/EHS MGR
Entity Title: Not reported
Affiliation Address: 6900 PASEO PADRE PKWY
Affiliation City: FREMONT
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94555
Affiliation Phone: 6503613022

Affiliation Type Desc: Company Official
Entity Name: Bo Yu
Entity Title: plant manager
Affiliation Address: 304 CONSTITUTION DR
Affiliation City: MENLO PARK
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94025
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Owner
Entity Name: TE CONNECTIVITY LTD
Entity Title: Not reported
Affiliation Address: 1050 WESTLAKES DR.
Affiliation City: BERWYN

RAYCHEM CORPORATION (Continued) **S106838049**

Affiliation State:	PA
Affiliation Country:	Not reported
Affiliation Zip:	193120000
Affiliation Phone:	6503613022
Affiliation Type Desc:	Parent Company
Entity Name:	TE CONNECTIVITY LTD
Entity Title:	Not reported
Affiliation Address:	304 CONSTITUTION DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	Not reported
Affiliation Type Desc:	Public Contact
Entity Name:	Stephen Douglas
Entity Title:	Not reported
Affiliation Address:	304 CONSTITUTION DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	6503613022
Affiliation Type Desc:	Technical Contact
Entity Name:	Stephen Douglas
Entity Title:	Not reported
Affiliation Address:	304 CONSTITUTION DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94025
Affiliation Phone:	6503613022

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160 WNW 1/2-1 0.859 mi. 4537 ft. **TE CONNECTIVITY LTD** **305 CONSTITUTION DR.** **MENLO PARK, CA** **CORRACTS** **US INST CONTROL** **US FIN ASSUR** **1024248041** **N/A**

Relative: Lower

Actual: 7 ft.

CORRACTS:

EPA ID:	CAD009125527
EPA Region:	09
Area Name:	ENTIRE FACILITY
Actual Date:	20160427
Action:	CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s):	326121 325991 Unlaminated Plastics Profile Shape Manufacturing Custom Compounding of Purchased Resins
Original schedule date:	20160330
Schedule end date:	20160427
EPA ID:	CAD009125527
EPA Region:	09
Area Name:	ENTIRE FACILITY

TE CONNECTIVITY LTD (Continued) **1024248041**

Actual Date: 20150130
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20120806
Action: CA772PR
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20120731
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20110330
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20110330
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20070906
Action: CA550RC
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20070906
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20070418
Action: CA650SR
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20070414
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20070202

TE CONNECTIVITY LTD (Continued) **1024248041**

Action: CA600SR - Stabilization Measures Implemented, Primary measure is source removal and/or treatment
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20070228
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20070119
Action: CA772GC
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20070119
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20061130
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20061130
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20060727
Action: CA380 - Date For Public Notice On Proposed Remedy
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20060710
Action: CA350 - CMS Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: OFFSITE SOIL
Actual Date: 20050426
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not

TE CONNECTIVITY LTD (Continued) **1024248041**

amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20050426
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: OFFSITE SOIL
Actual Date: 20041004
Action: CA200 - RFI Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20030915
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: OFFSITE SOIL
Actual Date: 20040604
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20040305
Action: CA200 - RFI Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20031224
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20021010
Action: CA500 - CMI Workplan Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: Not reported
Schedule end date: Not reported

TE CONNECTIVITY LTD (Continued) **1024248041**

EPA ID: CAD009125527
EPA Region: 09
Area Name: EAST AND OFFSITE OF THE FACILITY
Actual Date: 20021007
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD009125527
EPA Region: 09
Area Name: EAST AND OFFSITE OF THE FACILITY
Actual Date: 20021007
Action: CA200 - RFI Approved
NAICS Code(s): 326121 325991
Unlaminated Plastics Profile Shape Manufacturing
Custom Compounding of Purchased Resins
Original schedule date: 20020315
Schedule end date: Not reported

US INST CONTROL:
EPA ID: CAD009125527
Site ID: Not reported
Name: TE CONNECTIVITY LTD
Action Name: Not reported
Address: 305 CONSTITUTION DR.
MENLO PARK, CA 94025-0000
EPA Region: 9
County: SAN MATEO
Event Code: CA772GC
Inst. Control: Not reported
Actual Date: 01/19/2007
Complet. Date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported
Contact Name : STEPHEN DOUGLAS
Contact Phone and Ext : 650-361-3022
Event Code Description: INSTITUTIONAL CONTROLS ESTABLISHED-GOVERNMENTAL CONTROL

EPA ID: CAD009125527
Site ID: Not reported
Name: TE CONNECTIVITY LTD
Action Name: Not reported
Address: 305 CONSTITUTION DR.
MENLO PARK, CA 94025-0000
EPA Region: 9
County: SAN MATEO
Event Code: CA772GC
Inst. Control: Not reported
Actual Date: 07/27/2007
Complet. Date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported
Contact Name : STEPHEN DOUGLAS
Contact Phone and Ext : 650-361-3022

TE CONNECTIVITY LTD (Continued) **1024248041**

Event Code Description: INSTITUTIONAL CONTROLS ESTABLISHED-GOVERNMENTAL CONTROL

EPA ID: CAD009125527
Site ID: Not reported
Name: TE CONNECTIVITY LTD
Action Name: Not reported
Address: 305 CONSTITUTION DR.
MENLO PARK, CA 94025-0000
EPA Region: 9
County: SAN MATEO
Event Code: CA772PR
Inst. Control: Not reported
Actual Date: 08/06/2012
Complet. Date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported
Contact Name : STEPHEN DOUGLAS
Contact Phone and Ext : 650-361-3022
Event Code Description: INSTITUTIONAL CONTROLS ESTABLISHED-PROPRIETARY CONTROL

US FIN ASSUR:

EPA ID: CAD009125527
County: Not reported
Mechanism type: L
Mechanism Type Description: LETTER OF CREDIT
Cost estimate: 994000
Face value: 994000
Effective date: 2007-01-16 00:00:00
Provider: DEUTSCHE BANK
EPA region: 9

EPA ID: CAD009125527
County: Not reported
Mechanism type: X
Mechanism Type Description: STANDBY TRUST FUND
Cost estimate: 994000
Face value: 0
Effective date: 2007-01-18 00:00:00
Provider: DEUTSCHE BANK TRUST COMPANY AMERICAS
EPA region: 9

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EAST PALO ALTO	S106235145	FORMER RAIL SPUR EAST PALO ALTO RI	VICINITY OF BAY RD		CA CPS-SLIC
MENLO PARK	S106235275	SUN MICROSYSTEMS INC	UNKNOWN WILLOW RD		CA CPS-SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 41

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 34
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/19/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 48

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 27

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 04/15/2019
Number of Days to Update: 52

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/11/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 10/11/2018
Number of Days to Update: 29

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 27

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 32

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/24/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 40

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 04/03/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 02/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/11/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 38

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/21/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/03/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/21/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 39
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 04/18/2019
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 11
Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 01/23/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 47

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019
Date Data Arrived at EDR: 03/22/2019
Date Made Active in Reports: 04/09/2019
Number of Days to Update: 18

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 47

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/10/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 56

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 23
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/05/2019
Number of Days to Update: 31
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 47
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/18/2019
Date Data Arrived at EDR: 03/19/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 41
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 47

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 27

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 59

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 58

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/24/2019
Date Data Arrived at EDR: 01/25/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 39

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 17

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 01/16/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 28

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/10/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 19

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/12/2019
Number of Days to Update: 28

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 56

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/16/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Semi-Annually

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 28

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 13

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/19/2019
Date Made Active in Reports: 05/08/2019
Number of Days to Update: 50

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 04/01/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 26
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 31
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/07/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/12/2019
Number of Days to Update: 42
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46
Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/12/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 18
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/31/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 01/04/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 60

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 67

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 48

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 33

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 03/06/2019
Date Data Arrived at EDR: 03/06/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 54

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

SAN DIEGO CO. SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/14/2019
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 47

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/23/2019
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 15

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/29/2019
Number of Days to Update: 53

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 03/18/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 19

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 33

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 42

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 35

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/09/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 42

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 13

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 22

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/25/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/10/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/14/2019
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/11/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

THE GATEWAY GARDENS APARTMENTS
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

TARGET PROPERTY COORDINATES

Latitude (North):	37.477617 - 37° 28' 39.42''
Longitude (West):	122.152572 - 122° 9' 9.26''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	574929.1
UTM Y (Meters):	4147991.0
Elevation:	10 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640620 PALO ALTO, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

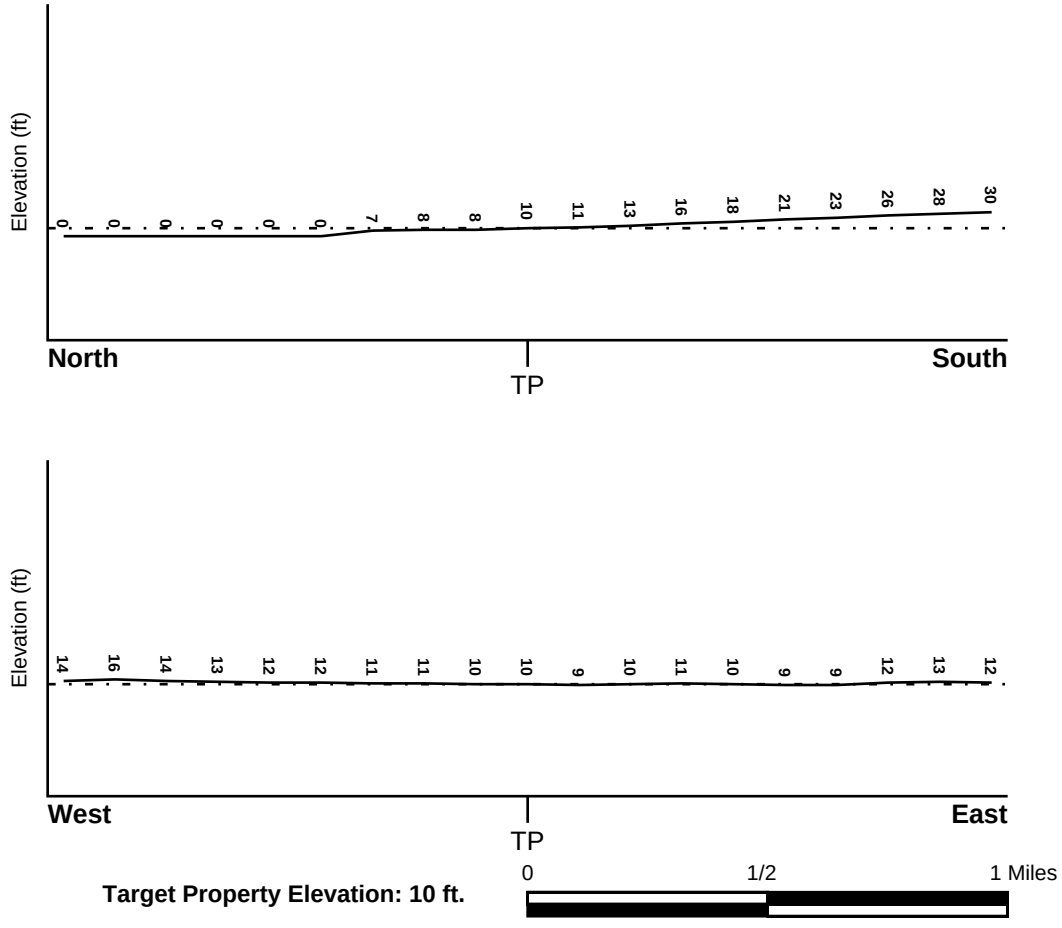
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 10 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06081C0307E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06081C0306E	FEMA FIRM Flood data
06081C0308E	FEMA FIRM Flood data
06081C0309E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
PALO ALTO	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile NNE	NW
A2	1/8 - 1/4 Mile NW	Not Reported
A3	1/8 - 1/4 Mile NW	Not Reported
4	1/4 - 1/2 Mile SE	Not Reported
C9	1/2 - 1 Mile ESE	ENE
C10	1/2 - 1 Mile ESE	ENE

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
11	1/2 - 1 Mile SSW	Not Reported
1G	1/8 - 1/4 Mile NNE	NW
2G	1/8 - 1/4 Mile NW	Not Reported
3G	1/8 - 1/4 Mile NW	Not Reported
4G	1/4 - 1/2 Mile SE	Not Reported
5G	1/2 - 1 Mile ESE	ENE
6G	1/2 - 1 Mile ESE	ENE
7G	1/2 - 1 Mile SSW	Not Reported

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

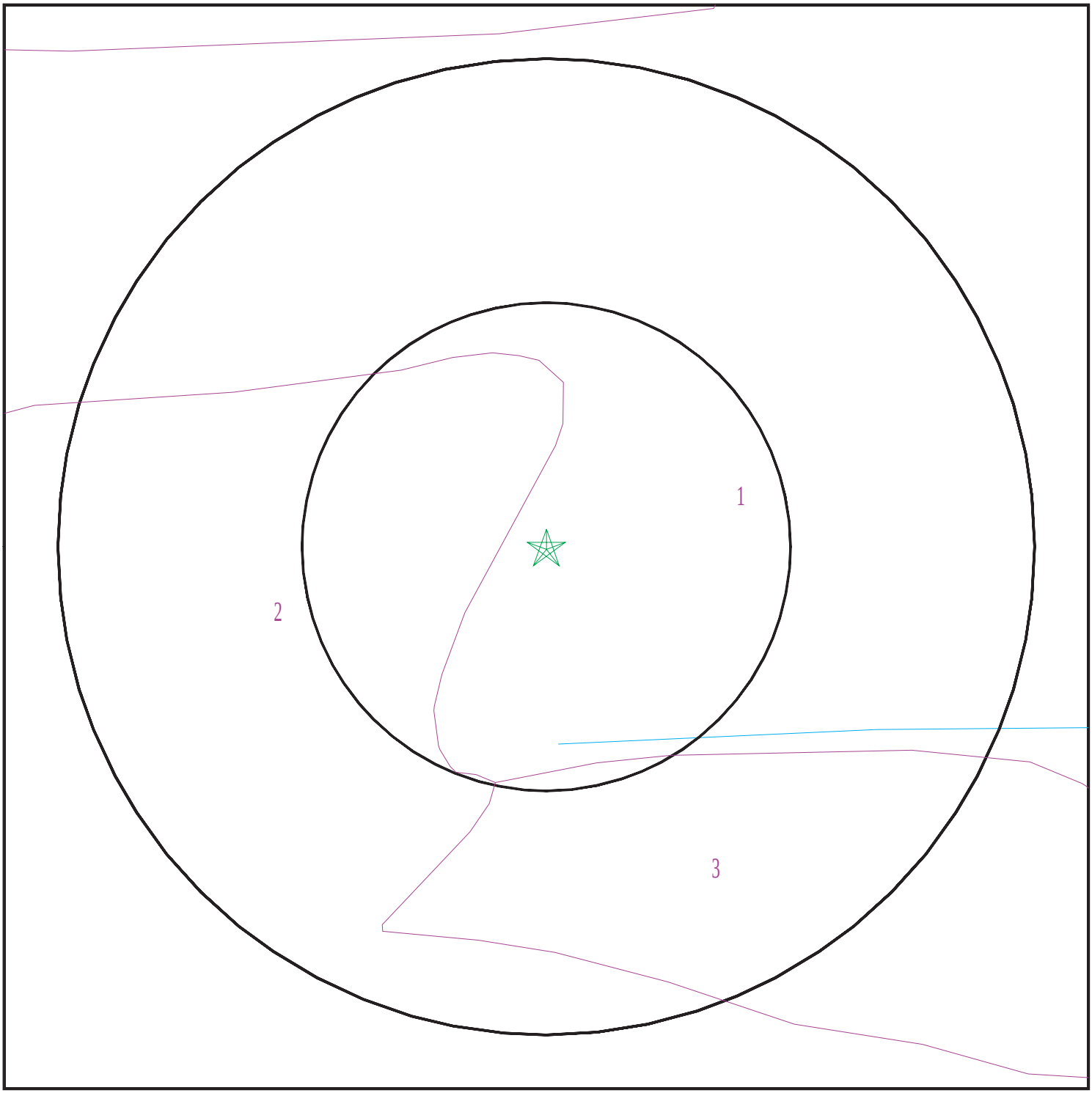
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5654286.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	The Gateway Gardens Apartments	CLIENT:	Integrated Property Analysis
ADDRESS:	1317 - 1345 Willow Road Menlo Park CA 94025	CONTACT:	Michael Atallah
LAT/LONG:	37.477617 / 122.152572	INQUIRY #:	5654286.2s
		DATE:	May 16, 2019 12:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
5	USGS40000183384	1/2 - 1 Mile SE
12	USGS40000183351	1/2 - 1 Mile SW
13	USGS40000183365	1/2 - 1 Mile SE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B6	5877	1/2 - 1 Mile South
B7	5876	1/2 - 1 Mile South
B8	5875	1/2 - 1 Mile South

PHYSICAL SETTING SOURCE MAP - 5654286.2s

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	The Gateway Gardens Apartments	CLIENT:	Integrated Property Analysis
ADDRESS:	1317 - 1345 Willow Road Menlo Park CA 94025	CONTACT:	Michael Atallah
		INQUIRY #:	5654286.2s
LAT/LONG:	37.477617 / 122.152572	DATE:	May 16, 2019 12:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **NNE** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	449001 NW 6.89 10.60 Not Reported 07/11/1996	**AQUIFLOW**	**64356**
A2 **NW** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0013 Not Reported 4.93 6.46 Not Reported 08/20/1991	**AQUIFLOW**	**64363**
A3 **NW** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440007 Not Reported 4.93 6.46 Not Reported 08/20/1991	**AQUIFLOW**	**64364**
4 **SE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440044 Not Reported Not Reported Not Reported 12 10/26/1994	**AQUIFLOW**	**64490**

5
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000183384**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W25F001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19791229	Well Depth:	334
Well Depth Units:	ft	Well Hole Depth:	351
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-05-02
Feet below surface:	9.89	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database: **CA WELLS** EDR ID Number: **5877**

B6
South
1/2 - 1 Mile
Higher

Seq:	5877	Prim sta c:	05S/03W-25M05 M
Frds no:	4110020005	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 06	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		

Sample date:	22-AUG-17	Finding:	0.92
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	22-AUG-17	Finding:	0.92
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	22-AUG-17	Finding:	520.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	22-AUG-17	Finding:	0.229
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		

Sample date:	11-OCT-16	Finding:	801.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

Sample date:	11-OCT-16	Finding:	7.67
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	11-OCT-16	Finding:	236.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	11-OCT-16	Finding:	236.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	11-OCT-16	Finding:	0.99
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	11-OCT-16	Finding:	207.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	54.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	18.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	100.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	91.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	52.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	11-OCT-16	Finding:	0.25
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	0.316
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.27
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.742
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.09
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.59
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	3.22
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	08-SEP-15	Finding:	1.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	0.543
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	442.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	1.03
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	181.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	5.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAY-14	Finding:	206.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	0.347
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	4.3
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAY-14	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	53.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-MAY-14	Finding:	91.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	96.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	18.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	53.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	231.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	19-MAY-14	Finding:	231.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	804.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	4.3
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	2.e-002
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.44
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.85
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.26
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	4.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	1.94
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		
Sample date:	05-JUN-12	Finding:	52.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-JUN-12	Finding:	439.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JUN-12	Finding:	0.124
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-JUN-12	Finding:	79.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	2.2
Chemical:	POTASSIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	05-JUN-12	Finding:	99.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	17.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	60.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	234.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	511.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	234.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	7.71
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

B7
South
1/2 - 1 Mile
Higher

CA WELLS **5876**

Seq:	5876	Prim sta c:	05S/03W-25M04 M
Frds no:	4110020004	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 05	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		
Sample date:	22-AUG-17	Finding:	226.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	444.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	22-AUG-17	Finding:	21.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	22-AUG-17	Finding:	47.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	22-AUG-17	Finding:	75.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	93.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	16.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	51.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	7.71
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	226.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	0.486
Chemical:	TURBIDITY, FIELD	Report units:	NTU
Dlr:	0.1		
Sample date:	22-AUG-17	Finding:	0.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	745.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.77
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	183.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-OCT-16	Finding:	73.
Chemical:	ALUMINUM	Report units:	UG/L
Dlr:	50.		
Sample date:	08-SEP-15	Finding:	1.27
Chemical:	GROSS BETA MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	08-SEP-15	Finding:	7.57
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	52.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	17.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	97.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	95.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	50.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	08-SEP-15	Finding:	424.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.557
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	1.2
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	1.59
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.26
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	08-SEP-15	Finding:	0.664
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.11
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.25
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	801.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	7.76
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.8
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.5
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.76
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-SEP-14	Finding:	463.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.22
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	47.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	03-SEP-14	Finding:	100.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	85.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	15.
Chemical:	MAGNESIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	03-SEP-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	183.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	678.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.38
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	0.45
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	5.1
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	508.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	2.
Chemical:	CYANIDE	Report units:	UG/L
Dlr:	100.		
Sample date:	19-MAY-14	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	48.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-MAY-14	Finding:	100.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	92.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	16.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	19-MAY-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	186.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	228.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	228.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	7.62
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	820.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	4.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	6.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	0.56
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.44
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.3
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	2.e-002
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	1.29
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		
Sample date:	05-JUN-12	Finding:	6.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JUN-12	Finding:	0.194
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-JUN-12	Finding:	0.91
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	05-JUN-12	Finding:	0.3
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	1.9
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		

B8
South
1/2 - 1 Mile
Higher

CA WELLS **5875**

Seq:	5875	Prim sta c:	05S/03W-25M03 M
Frds no:	4110020001	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 01 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	8	Status:	IU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		

C9
ESE
1/2 - 1 Mile
Higher

AQUIFLOW **64292**

Site ID:	890009
Groundwater Flow:	ENE
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	10
Date:	07/17/1997

C10
ESE
1/2 - 1 Mile
Higher

AQUIFLOW **64293**

Site ID:	41-0666
Groundwater Flow:	ENE
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	10
Date:	07/17/1997

11
SSW
1/2 - 1 Mile
Higher

AQUIFLOW **51116**

Site ID:	440016
Groundwater Flow:	Not Reported
Shallow Water Depth:	24.63
Deep Water Depth:	25.3
Average Water Depth:	Not Reported
Date:	02/16/1989

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

12
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000183351**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W26L001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported		
Aquifer Type:	Mixed (confined and unconfined multiple aquifers)		
Construction Date:	19281130	Well Depth:	575
Well Depth Units:	ft	Well Hole Depth:	575
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1994-05-12
Feet below surface:	24.49	Feet to sea level:	Not Reported
Note:	Not Reported		

13
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000183365**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W25G001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19580424	Well Depth:	54
Well Depth Units:	ft	Well Hole Depth:	54
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-05-01
Feet below surface:	9.15	Feet to sea level:	Not Reported
Note:	Not Reported		

1G
NNE
1/8 - 1/4 Mile
Lower

AQUIFLOW **64356**

Site ID:	449001
Groundwater Flow:	NW
Shallow Water Depth:	6.89
Deep Water Depth:	10.60
Average Water Depth:	Not Reported
Date:	07/11/1996

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
2G **NW** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440007 Not Reported 4.93 6.46 Not Reported 08/20/1991	**AQUIFLOW**	**64364**
3G **NW** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0013 Not Reported 4.93 6.46 Not Reported 08/20/1991	**AQUIFLOW**	**64363**
4G **SE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440044 Not Reported Not Reported Not Reported 12 10/26/1994	**AQUIFLOW**	**64490**
5G **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890009 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64292**
6G **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0666 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64293**
7G **SSW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440016 Not Reported 24.63 25.3 Not Reported 02/16/1989	**AQUIFLOW**	**51116**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94025	101	21

Federal EPA Radon Zone for SAN MATEO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SAN MATEO COUNTY, CA

Number of sites tested: 32

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.594 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.000 pCi/L	100%	0%	0%
Basement	3.133 pCi/L	67%	33%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX E:
Supporting Documentation

The Gateway Gardens Apartments
1317 - 1345 Willow Rd
Menlo Park, CA 94025

Inquiry Number: 5654286.5
May 20, 2019

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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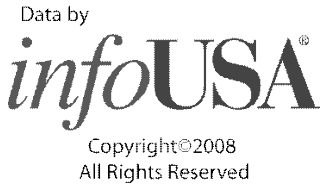


RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1987	☑	☐	Haines Criss-Cross Directory
1982	☑	☐	Haines Criss-Cross Directory
1977	☑	☐	Haines Criss-Cross Directory
1971	☑	☐	HAINES AND COMPANY
1963	☑	☐	POLK DIRECTORY CO
1957	☑	☐	POLK DIRECTORY CO

FINDINGS

TARGET PROPERTY STREET

1317 - 1345 Willow Rd
Menlo Park, CA 94025

Year	*CD Image*	*Source*
WILLOW RD		
2014	pg A2	EDR Digital Archive
2010	pg A5	EDR Digital Archive
2005	pg A7	EDR Digital Archive
2000	pg A9	EDR Digital Archive
1995	pg A10	EDR Digital Archive
1992	pg A11	EDR Digital Archive
1987	pg A12	Haines Criss-Cross Directory
1982	pg A13	Haines Criss-Cross Directory
1977	pg A14	Haines Criss-Cross Directory
1971	pg A15	HAINES AND COMPANY
1971	pg A16	HAINES AND COMPANY
1963	pg A17	POLK DIRECTORY CO
1963	pg A18	POLK DIRECTORY CO
1963	pg A19	POLK DIRECTORY CO
1957	pg A20	POLK DIRECTORY CO
1957	pg A21	POLK DIRECTORY CO

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2014

1265 LAW, MAE
1271 DESTA, MENGISTAB T
DILLARD, PAULINE
PIVOVAROVA, NATALYA F
RAMIREZ, YOLANDA
ROCHETTE, JUDY A
1305 SOLESKA MARKET
1317 BARRET, LIDIA V
DELATORRE, JASMIN
ROSALES, MARIA
SEDANO, MARTHA
1320 ARMOR TRANSPORT SYSTEMS INC
GARDA CL WEST INC
WILLOW WINE STORAGE LLC
WINE BANK
1321 MADRIGAL, ANGELICA
PRADO, JOSE
PULIDO, MARIA
SERRATO, MARIA
VITALE, ALBERTO
1325 ECHEVERRIA, HERMELINDA A
ROMERO, JOSE
SALAZAR, GUADALUPE
THOMAS, NEEMA
WARREN, CHARLOTT R
1329 ALEMAN, LUIS
BERNADO, MAYHETT F
CEJA, JAIME
RINCON, MARIA I
VARGAS, ELIZABETH
1333 AVALOS, VICTORIA
GREGORY, JAMES H
JAGUBHAI, MACHHI
PRICE, AMOS
QUASHA, ISABEL A
1339 HART, PAULINE
OLTMANS, HELEN
SMITH, HULON
1340 MID PENINSULA HIGH SCHOOL
1345 DAVIS, DIONNE
DIONNE, DAVIS
GATEWAY APARTMENTS
PIZARRO, JOSHUA
1349 JOYA, JUANA
LUCATERO, EVA L
VINES, PATRICK
1350 GUIDESPARK INC
NOVARIANT INC
NOVAZONE INC
PERSONALIS INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2014 (Cont'd)

1350	PFI ACQUISITION INC
	POSHMARK INC
1353	ALRO CUSTOM DRAPES
	CORNEJO, MARIA
	GUERRERO, VICTORIA
	MARCIAL, ARACELI
	MORALES, MARIA G
	REVUELTA, G M
	RODRIGUEZ, ALEJANDRA
1357	BUSTO, MORENO B
	FEGGANS, SUELLA K
	GODINEZ, GLORIA
	GONZALEZ, HERMELINDA G
	HARDY, ALEX
	SEALS, M
1360	AMB PROPERTY CORP
	PALL FORTEBIO CORP
	VIROBAY INC
1361	HUERTA, ALBERTO L
	HUERTAS, MARIA
	LOGAN, BETTY J
	TOWNSEND, PATRICIA A
1365	ACHICA, BETTY
	AVILA, MARIBEL
	FERNANDEZ, RAYNER
1369	BARAJAS, FABIOLA
	JOHNSON, EDNA
	LOPEZ, LUCIA
	PATTERSON, ANNIE R
	WEST, R
1370	BLUBRIDGE SOLUTIONS INC
	BUZZ SOCIAL MEDIA INC
	CLOUDMADE INC
	CODE-N
	CODILIME INC
	COGNIANCE INC
	COUNSEL-AT-LARGE PC
	CRITICAL SOFTWARE LIMITED
	DUCKHWAN, KIM
	EVERGENT TECHNOLOGIES INC
	HOOLAI INTL INC
	INFRASTRUCTURE ENGRG CORP
	INTERNATIONAL BUS INCUBATOR
	LEAN SOFTWARE INSTITUTE
	MOFFETT INVESTMENT CAPITAL & S
	NORKATECH INC
	NT OLDCO INC
	OYSTERFIELDS LLC
	PLATINUM ANLYTCAL INVSTORS INC
	SECURE ACCESS TECHNOLOGIES

WILLOW RD 2014 (Cont'd)

1370	SOCIALMOON INC
	SONOPIA CORPORATION
	VICTRIO
	VIVINO INC
	YONJA MEDIA GROUP
	ZEALAKE LLC
	ZIMAOFFICE INC
1373	CARDENAS, ZOILA
	JOHNSON, WILLIE N
1374	SHENGNUO PEPTIDE USA INC
1376	INDUSTRIAL EMERGENCY COUNCIL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2010

1271	DESTA, MENGISTAB T
	HERNANDEZ, OLGA O
	ROCHETTE, JUDY A
1275	CARTER, BESSIE
	MALAGAMBA, MARCY N
	MASSAGE THERAPY
	WILLIAMS, LILLIAN
1305	LA MICHCAN SUPERMARKET
1317	BYRD, KIYANNA
	DELATORRA, ANA
	MADRIZ, MARIA
1320	GARDA CL WEST INC
	WILLOW WINE STORAGE LLC
	WINE BANK
1321	ARREGUIN, JUAN
	BANKS, ROBERT
	BUSTOS, HECTOR
	LOPEZ, DORAA
	TAYLOR, MARYLIN
1325	BILLY WINDOW CLEANING
	GARCIA, AURELIO D
	ROMERO, ERICA
	WRIGHT, CHARLOTTE R
1329	ALEMAN, LUIS
	CONAWAY, ALEXANDRA
	GONZALEZ, SERGIO L
	IBARRA, NICOLAS
	PETELCO, KOLIANITA
1333	AVALOS, MANUEL
	GREGORY, JAMES H
	PRICE, AMOS
1339	JOHNSON, MARTHA H
	SIBLEY, PAULINE A
1340	MID PENINSULA HIGH SCHOOL
1345	DAVIS, DIONNE
	GATEWAY APARTMENTS
1349	INTOUCH FITNESS
	JOYA, JUANA
	LUCATERO, EVA L
	VINES, RUTH
1350	ATTO DEVICES INC
	INTERSURVEY
	KN DIMESTORE MEDIA LLC
	KNOWLEDGE NETWORKS INC
1353	ALRO CUSTOM DRAPES
	BARAJAS, ADAM B
	EPPS, DRINA
	MORALES, MARIA G
	REVUELTA, G M
1357	AYALA, PATRICIA A

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2010 (Cont'd)

1357	BILLYS JANITONAL SERVICE
	BUSTO, MORENO B
	ECHEVERRIA, HERMELINDA
	REYES, MARIA G
	SEALES, SUSAN N
1360	AMB PROPERTY CORP
	ARIA BIOSYSTEMS CORP
	FIRE EYE INC
	FORTEBIO INC
	MEMBRANE TECHNOLOGY & RES INC
	SITESTUFF CBRE WILLOW PAR
1361	HAGGINS, LAURA
	MAHONI, SALOME
	ROMERO, JOSE
1365	ARDOIN, ELIZABETH S
	FERNANDEZ, RAYNER
	HARDY, BILL
	RAMIEZ, ARACELI
1369	CRAIN, NICOLE
	LANDA, ROMELIA
	LOPEZ, LUCIA
	PATTERSON, ANNIE R
	WEST, R
1370	CAMPUSONCOM
	CLOUDMADE
	COGNIANCE
	EVERGENT
	ISSUU
	LIFE EXPECTANCY GROUP
	LKP SERVICES
	NORKATECH INC
	OYSTERFIELDS LLC
	SONOPIA CORPORATION
	TELECA USA
1373	ANGUIANO, CELIA A
	CARDENAS, ZOILA
	JOHNSON, ELLIS
	JOHNSON, WILLIE N
	MAZARIEGOS, LYDIA
1374	SUMMER HILL LTD
1376	JETFAX INC
	NORTH VECTOR INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2005

1271	DILLARD, PAULINE
	JACKSON, DENISSE
	JOHNSON, FLOYD
	TORRES, ELIGIO
1305	LA MICHCAN SUPERMARKET
	SANDOVAL ALICIA
1310	WASHINGTON, ALFRED
1317	GUTIERREZ, GUILLERMINA
	NICHOLS, LATRELL
	TORRE, JASMIN
1320	ARMORED TRANSPORT OF CA INC
	WINE BANK
1321	HERNANDEZ, FLORENCIO
	OROZCO, MARINA
1325	BRITTON, DAMARIS
	GALLARDO, LEONILA E
	LATISHA, RUSSELL
	ROMERO, ERICA
	WRIGHT, CHARLOTTE R
1329	BOSSGAME RECORDS
	CONAWAY, ALEXANDRA
	GONZALEZ, NOEL
	ROMERO, MANUEL
	ROSS, DAVID
	TAPIA, JULIO C
1333	BARKER, RHONDA
	BUTLER, DESIREE
	CLAYTON, D
	DESTA, MENGISTAB
	GREGORY, JAMES H
	PITTMAN, CAMELLIA
	PRICE, AMOS
	TORRES, PAULA
1340	MID PENINSULA HIGH SCHOOL
1345	GATEWAY APARTMENTS
1349	JARATO, ZAKARIA A
	JOYA, JUANA
1350	KNW NETWORKS INC
	NOVARIANT INC
	PAS RESEARCH INC
1353	BARAJAS, ADAM
	CARRETO, ARMANDO
	LANDA, ROMELIA
	ORTIZ, GABRIELA
1357	FLORES, V
1360	AMB PROPERTY CORP
	ENGINEERED INTELLIGENCE CORP
	FINTRONIC USA INC
	FORTEBIO INC
	MEMBRANE TECHNOLOGY & RESEARCH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2005 (Cont'd)

1360 NETFORTS INC
1361 CARR, SUSAN M
NAWAL, SALEM
TOWNSEND, PATRICIA A
1365 GOODWILL, THELMA
ROBERTSON, ROSE M
1369 MARTINEZ, JAIME E
PACHECO, ROSAMVER
TORRES, OSIEL
1370 DAVIS, JAMES
JACKSON, MATTHEW W
SIMULTRANS LLC
VEIAS
1373 JOHNSON, ELLIS
1374 SUMMER HILL LTD
1378 DOCUMAGIX INC
IGENE DIAGNOSTICS INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 2000

1271	HARRISON, RHONDA
1275	CARTER, BESSIE
1305	LA MICHCAN SUPERMARKET
	OCCUPANT UNKNOWN,
1317	ESCAMILLA, JUANA M
	MYERS, ANNETTE
	SIMS, REGINA
1321	ESQUIVEL, D
	JONES, DENISE A
	TAYLOR, DIANNE
1325	GALLARDO, FRANCIS
	MALDONADO, MIGUEL A
	SALAZAR, JOVITA
1329	ALLEN, BILLY
	BISHOP, CHAMONE
	ROMERO, MANUEL
1333	GREGORY, JAMES H
	JOHNSON, WILLIAM
1339	SIBLEY, PAULINE
1345	GATEWAY
1349	AHMED, A
	BALLARD, LATARA
	REED, EVELYN
1350	EGGHEADCOM INC
1353	LUCATERO, EVA L
1357	AYALA, CARMEN P
	HERNDON, VIRGILI
	SEALES, SUSAN N
	WILEY, FREDDIE
1360	KNOWLEDGE NETWORKS INC
	MEMBRANE TECHNOLOGY & RESEARCH
	OCTASOFT CORP
	PRODUCT HEALTH INC
1361	ARMAND, LEYDA
	TOWNSEND, P
1369	NUNN, GLORIA
	STRBLING, TERRY W
1370	I O DISPLAY SYSTEMS LLC
	ILIXCO INC
	OCCUPANT UNKNOWN,
	VISUAL ENVIRONMENTS OF CAL
	YAHOO INC
1373	JOHNSON, ELLIS
	NICHOLS, KIM
1374	EXPCOM
	FITZPATRICK, STEPHEN
1378	EFAXCOM INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 1995

1271	TIMMONS, SUNNY
1275	BROWN, T
	HUDSON, MARY
1305	FAMILY SUPERMARKET
1317	MYERS, ANNETTE
1320	SUNSET PUBL
1321	RAMBIN, LYNNE
	SCOTT, HAZEL
1325	WALLACE, LINA E
1329	RIVERA, M
1333	JOHNSON, WILLIAM
1337	OCCUPANT UNKNOWNN
1339	SMITHSON, LILLIE M
1345	GATEWAY
1349	OCCUPANT UNKNOWNN
1350	ADVANCED CORONARY TECHNOLOGY
	MENLO CARE INC
	PROGRESSIVE ANGIOPLASTY SYSTEM
1353	LUCATERO, EVA L
1357	BAILEY, V
	HERNDON, VIRGILI
1360	DIGIDESIGN INC
	FINTRONIC USA
	MEMBRANE TECHNOLOGY & RESEARCH
1361	TOWNSEND, PATRICI
1365	ANDERSON, ANDRE
1369	ROBBINS, RUBY
1370	OSD ENVIZION INC
	STUDER EDITECH CORP
1373	OCCUPANT UNKNOWNN
1374	ADVANCED METAL COMPONENTS INC
1376	ADVANCE TELETRONICS
	JETFAX INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

WILLOW RD 1992

1271	MENDOZA, BERTHA
	TIMMONS, SUNNY
1275	BROWN, T
	CLAYTON, ANNA M
	HUDSON, MARY
	MERRITT, GEORGE
1317	MYERS, ANNETTE
1320	SUNSET PUBL
1321	RAMBIN, LYNNE
1325	WILLIAMS, LISA
1329	BEASLEYS FURNITURE MOVING
1333	JOHNSON, WILLIAM
1339	HALL, RALPH M
	SMITHSON, LILLIE M
1345	GATEWAY
	NOBLE, DANIEL
1350	MENLO CARE INC
	PROGRESSIVE ANGIOPLASTY SYSTEM
1353	LUCATERO, EVA L
1357	HERNDON, V
	SLEDGE, ALICIA R
1360	DIGIDESIGN INC
	FINTRONIC USA
	MEMBRANE TECHNOLOGY & RESEARCH
1361	TOWNSEND, P
1370	STUDER EDITECH CORP
1374	ADVANCED METAL COMPONENTS INC

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

WILLOW RD 1987

1209	★QUALITY MARKET	325-8720	0
1221	XXXX	00	
1233	MENO JEAN	323-7360	5
1234	XXXX	00	
1239	XXXX	00	
1259	FERNANDEZ BEATRIZ	321-8167	4
1263	XXXX	00	
1275	★H D C WILLOW ROAD	323-5615	5
1300	XXXX	00	
1305	★E THOMAS ROOFING CO	322-2189	0
1321	XXXX	00	
1325	VALENCIA JOEL V	324-2550	6
1329	GUITERREZ JOSE LUIS	326-4255	2
1333	XXXX	00	
1339	LIGGINES ANDREW E	321-1371	5
1340	★LARSEN W L INC	324-0536	6
	★LARSENS TRUCKING	324-0536	6
	★UNIQUE ELTRNC TRANS	324-9111	6
	★WHEATON VAN LINES	324-9111	6
1345	GARCIA GUADULUPE	321-8318	2
1346	XXXX	00	
1353	CABRERA ALICIA	327-6505	4
	LOPEZ GRACIELA	853-1735	4
1357	CARDENAS EMMA	329-1403	4
	SANCHES ELISA	321-7315	5
1360	XXXX	00	
1365	GARCIA LUIS	322-2949	5
1369	XXXX	00	
1380	★SILICON SOLUTIONS	321-8574	4
1385	XXXX	00	
1388	★TRANSIMAGE CORP	327-5511	6
1394	★NORTHWOOD INDSTRIES	321-9480	0
1399	★HEADS MARKET	322-1135	5
1401	★PARISIAN BAKERIES	324-1371	
	★RENON PARISIAN BKRS	324-1371	
1520	FULLINWIDER E	325-2140	0
	★MELCHER ENTERPRISES	325-6450	
	RACHESKY MARK	321-3488	3
	★ 77 BUS 299 RES	0 NEW	

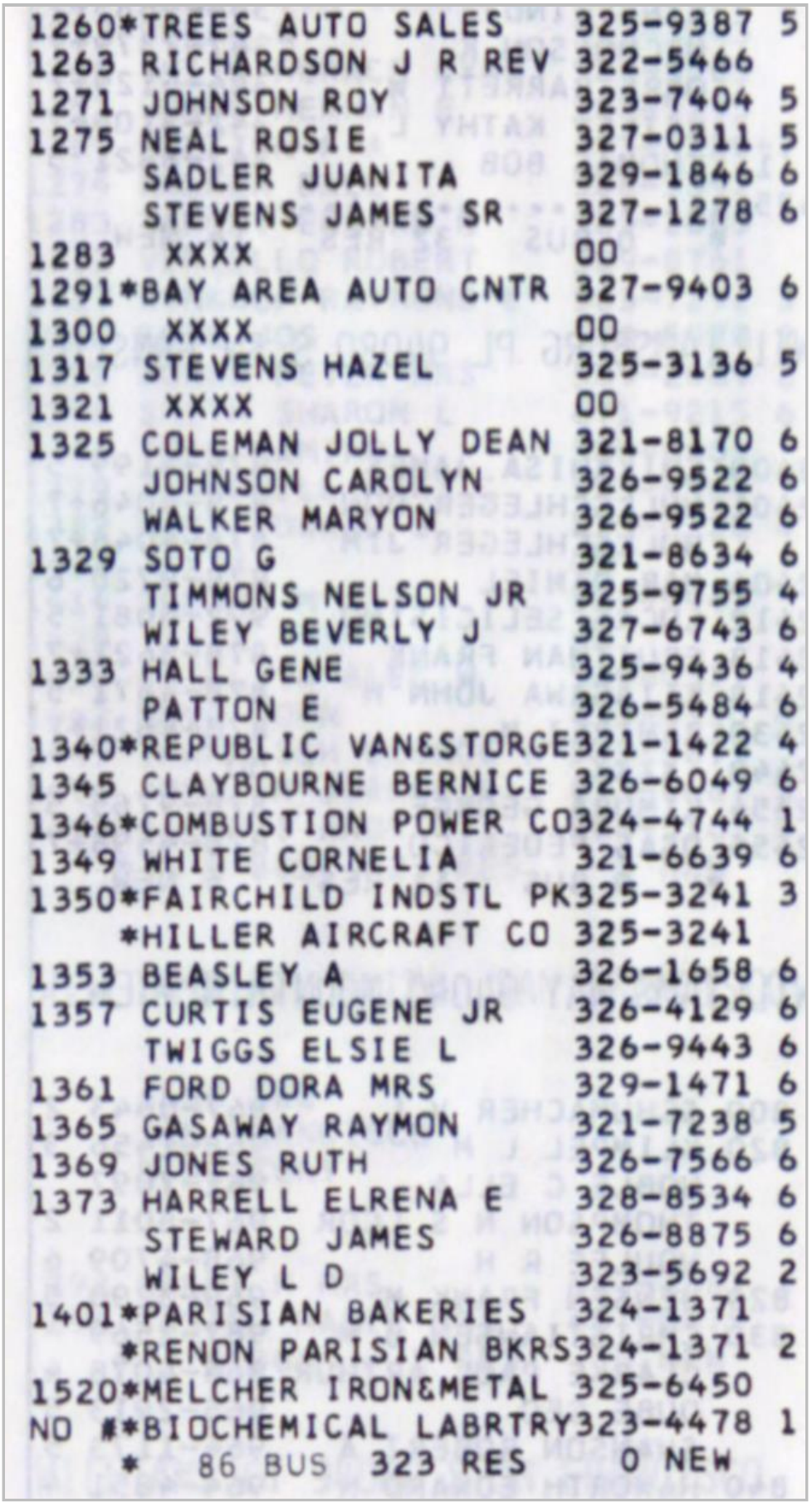
Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

WILLOW RD 1982

1254	**THOMAS AUTO REPAIR**	**323-9593**	0
1255	MADRIS RAMON	326-2547	1
	NUNEZ JAVIER	326-2455	1
1259	AGUILAR RACHEL	328-8918	9
	CARDOSO ESEQUIEL	321-6099	0
1263	GRAJEDA CLAUDIO P	327-2162	1
1271	CONNER MARJORIE	322-5854	0
	SIMS VIOLA	328-6029	8
1275	COBB S	322-9116	1
1283	XXXX	00	
1300	XXXX	00	
1305	**E THOMAS ROOFING CO**	**322-2189**	0
	THOMAS RFNG CO	**322-2189**	0
1315	HERNANDEZ A	324-1498	0
1317	PATINO ESPERANZA	322-9547	0
	SANCHEZ MARIA	329-9142	0
1321	CHIPRES EMILIA	321-0582	1
	DAVIS OLIVER	322-8711	1
	GRAY HENRY	325-4863	9
1329	MANOR VERNEEDA	326-0297	1
	TIMMONS NELSON JR	325-9755	4
1333	BARLOW J	321-8846	1
	HALL GENE	325-9436	4
1339	HARRELL ELRENA E	325-1763	0
1345	CLAYBURNE BERNICE	326-6049	6
	MONTES A M	323-1210	0
	SUA LUISA	323-4921	8
	TUUMULI SAL	326-4162	1
1349	ESCALANTE ALVARO	326-3437	1
1350	**MAIN CHAMP CO**	**325-7585**	1
	MENLO INDUSTRL CNTR	**328-5116**	0
1353	LOPEZ TERESA A	329-0978	1
	RICO NICOLASA	322-9113	1
1357	CERBANTES LALO	324-1923	0
	CUMMINGS VALERIE M	322-8274	1
	GONZALES GUADALUPE	326-6358	9
1360	**CANDLELIGHT**	**364-7083**	+2
	CANDLELIGHT SLS	**328-1013**	1
	COLONY CANDLES	**364-7083**	1
	COLONY CANDLES	**328-1013**	9
	LESLIE RESEARCH	**326-4991**	1
	SYNAPSE COMPTR CORP	**326-4991**	1
1361	CABRERA GENARO	327-8271	1
	MONTEZ JUAN	323-9787	0
1364	**COMBUSTION POWER CO**	**324-4744**	1
1365	DELGADO JOSE LUIS	322-2240	1
	PRADO JUAN	326-6704	1
	VALDES GUSTAVO A	321-9434	0
1369	DILWORTH IOLA	323-0833	0
	PAIGE JOYCE	325-2753	0
	WARREN LORETTA C	325-2564	0
1373	GRANT MAXINE	324-1767	0
	LEE RONNIE	326-4817	7
1377	ALVAREZ LIDIA	323-5818	1
	BAUTISTA CATARINO	321-4394	1
	RAMOSLUCATERO EVA	322-0629	1
	SARAGOSA URBANO	325-3125	9
1379	CONTRERAS MIGUEL	321-8895	1
	TORRES RUEBIN S	321-0633	1
1385	CEBALLOS MARIA	326-2826	1
	MALDONADO FERNANDO	327-2708	1
	OLDEN BOB	321-2154	1
1392	**CABINET WORLD**	**321-5042**	0
1394	**NORTHWOOD INDSTRIES**	**321-9480**	0
1401	**PARISIAN BAKERIES**	**324-1371**	
	RENON PARISIAN BKRS	**324-1371**	+2
NO #	**ATKINSON GUY F CO**	**321-9863**	0
NO #	**KAISER STEEL**	**323-6229**	1
★	99 BUS 332 RES	12 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

WILLOW RD 1977



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1260*TREES AUTO SALES      325-9387 5
1263 RICHARDSON J R REV    322-5466
1271 JOHNSON ROY           323-7404 5
1275 NEAL ROSIE            327-0311 5
     SADLER JUANITA        329-1846 6
     STEVENS JAMES SR      327-1278 6
1283  XXXX                 OO
1291*BAY AREA AUTO CNTR    327-9403 6
1300  XXXX                 OO
1317 STEVENS HAZEL         325-3136 5
1321  XXXX                 OO
1325 COLEMAN JOLLY DEAN    321-8170 6
     JOHNSON CAROLYN       326-9522 6
     WALKER MARYON         326-9522 6
1329 SOTO G                321-8634 6
     TIMMONS NELSON JR     325-9755 4
     WILEY BEVERLY J       327-6743 6
1333 HALL GENE             325-9436 4
     PATTON E              326-5484 6
1340*REPUBLIC VAN&STORGE   321-1422 4
1345 CLAYBOURNE BERNICE    326-6049 6
1346*COMBUSTION POWER CO   324-4744 1
1349 WHITE CORNELIA        321-6639 6
1350*FAIRCHILD INDSTL PK   325-3241 3
    *HILLER AIRCRAFT CO    325-3241
1353 BEASLEY A             326-1658 6
1357 CURTIS EUGENE JR      326-4129 6
     TWIGGS ELSIE L        326-9443 6
1361 FORD DORA MRS         329-1471 6
1365 GASAWAY RAYMON        321-7238 5
1369 JONES RUTH            326-7566 6
1373 HARRELL ELRENA E      328-8534 6
     STEWARD JAMES         326-8875 6
     WILEY L D             323-5692 2
1401*PARISIAN BAKERIES     324-1371
    *RENON PARISIAN BKRS   324-1371 2
1520*MELCHER IRON&METAL    325-6450
NO #*BIOCHEMICAL LABRTRY   323-4478 1
    *   86 BUS  323 RES     0 NEW
```

Target Street	Cross Street	Source
✓	-	HAINES AND COMPANY

WILLOW RD 1971

1243	FITCH CHAS E	325-0254+1
1247	JONES MELVIN	322-3927
	SCOTT J W	325-4896
	SHAW COY	325-5295
1249	WEEKS ALICE	322-3040+1
1250*	CLARKS BARBER SHOP	325-2172
1253	GRAVES WILLIE	325-5778+1
	MOORE LUCINDA MISS	325-0247+1
1254*	BOWSERS UNION SERV	328-9430
1255	BROOKS BERTHA	325-1947+1
1258*	SIMS ENCO SERVICE	328-9663+1
1259	HENDERSON BERTHA	322-2657+1
	HOLLAND LOUBERTHA	322-7182+1
1260*	HARPERS TEXACO	327-9980+1
1263	PITTS FRED	322-4210+1
	RICHARDSON J R REV	322-5466
	THOMAS EDWARD	323-5450
1271	CHATMON MARY	325-3766
	CURTIS EDDIE MRS	325-7172
1275	FOUNTILA L R MRS	323-2911+1
	HENDERSON HAZEL	328-5846+1
1283*	CARDINAL APPLNC SRV	322-0507+1
1291*	MILTONS AUTO SERV	322-8163+1
1300*	BELCHER HANCOCK SS	325-7579
1315	NEWBY REGINA	322-8634+1
	THEUS DOUGLAS	323-2780
	WOOD LARRY E	322-8128+1
1317	ANDERSON JOS C	325-2237+1
	HAYNES E FLOYD	322-0903
	STEELE ROSEMARY	323-2606+1
1325	HENDERSON ROSIE	323-9807
	HODGE ODELL	325-4609+1
1329	BREWER LENNETTA J	322-1797+1
	SIMS EDW	325-7481
1333	MILES DIANE	325-2076
	REGISTER ALMA	322-7852
	WINN WM C	323-4487+1

Target Street	Cross Street	Source
✓	-	HAINES AND COMPANY

WILLOW RD 1971

..WILLOW RD 94025 CONT..

1339	SCOTT STANLEY	325-3327
	SIMPSON TERRI	323-5086+1
1340*	REPUBLIC VAN&STORG	321-1422
1342*	FULLER OBRIEN CORP	328-6200
1345	DANIELS JESSIE M	325-4644+1
1346*	COMBUSTION POWER CO	324-4744+1
1349	MCDONALD FANNIE	326-5412
	WILLIAMS A W	325-7248+1
1350*	HILLER AIRCRAFT CO	325-3241
1353	BILBO GERALDINE	325-0566+1
	MARTIN ADOLPHUS	325-7906+1
	TURNER EARL	324-2141
	WESTMORELAND V G	323-2209+1
1357	TWIGGS OLLIE	323-4564+1
1360*	GRANGER ASSOCIATES	321-4175+1
1361	SPEARS DAVIE LEE	322-4271
	WHITE CALVIN	325-0159+1
	WRIGHT BENJAMIN JR	325-9020
1365	FORD DORA MRS	322-3071
	GRAYER JAS EARL	322-1226
	KING JOHNNIE B	322-4977
	ROSS ALFRED	323-0616
1369	ALEXANDER JOYCE	323-2908
	JONES MARVIN	322-5260+1
1373	DELILLE AUDREY P	323-2100+1
	KEMP OLA MRS	322-7166
1377	WILEY A J	325-4319
1379	CAMPBELL DAVID L	322-3098+1
	WILEY L D	323-5692+1
1385	BRISTER D	325-6896+1
	COWART GAIL M	322-2289+1
	GREENE ANDREW	322-6027
1389*	E MNLO PK TEEN CNTR	323-6267
1401*	PARISIAN BAKERIES	324-1371
1520*	MELCHER IRON&METAL	325-6450

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

WILLOW RD 1963

1254 Bowser's Union Serv gas sta DA3-8212

1255 **Apartments**

1 Foster Lynn H
4 Works Tommie L 324-2631
6 Stamps Saml M DA4-3867
8 Johnson Wilbur

Street continued

1258 Willow Road Serv Sta gas DA3-8173

1259 **Apartments**

1 Winn Louise Mrs
3 Reid Daisy Mrs
5 Johnson June Mrs
7 Whaley Eliz Mrs

Street continued

1260 Vacant

1263 **Apartments**

2 Haskey Linda A Mrs
4 Bryant Helen M
6 Richardson Jack R
8 Thomas Aubrey

1271 **Apartments**

1 Wadley Lloyd 325-7197
2 Stephens Carl
3 Vacant
4 Lewis Ossie
5 Rodgers Dorothy Mrs
6 Johnson Linzie

1275 **Apartments**

1 Boyd Howard
2 Foley Walter
3 Vacant
4 Brittan Clarence

Street continued

1283 V&M Auto Serv repr 322-9530

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

WILLOW RD 1963

WILLOW RD—Contd
1291 Vacant
Ivy dr intersects
1300 Hawley's Norwalk Serv gas sta DA6-5834
1301 Under Constn
1313 **Apartments**
1 Vacant
2 Cooper Maxine 323-0370
3 Rogers Chas
4 Smith Jessie
5 Vercher Jack
6 Gardner Elias
1317 **Apartments**
1 Singleton Deloris
2 DeMerrill Dion
3 Garner Odell
4 Brooks Robt A
5 Teyson Geo
6 Murray Wallace
1321 **Apartments**
1 Robinson Nathan
2 Hodge Carl E
3 Gordon Geo M
4 Mitchell Celestine Mrs
5 Carter Helen Mrs
6 Harris Oscar
1325 **Apartments**
1 Vacant
1 Hickman Alvin DA5-0383
2 Vacant
3 Balls Rose E Mrs 322-9609
4 Halloway John R
5 Jordan Jennie
6 Stephens Mack
1329 **Apartments**
1 Morris Dolly Mrs
2 Johnson Joseph
3 Vacant
4 Taylor Etta M Mrs
5 Williams James V 323-7901
6 Dean Paul
1333 **Apartments**
1 McDonald Bernice B Mrs
2 Williams Larry 322-5835
3 Vacant
4 Oliver James
5 Robison Jasper
6 Vacant
1339 **Apartments**
1 Moore Jos
2 Vacant
3 Higgins Raymond D
4 Vacant
Street continued
1340 Republic Van & Storage DA1-1422
1345 Vacant
1349 **Apartments**
1 Shines Frank P
2 Simon Allen M
3 Loften Jack L
4 Gamblin James A 322-9045
Street continued
1350 Hiller Aircraft Corp mfrs DA5-3241
1353 **Apartments**
1 Walker Joseph K
2 Smith Horace
3 Robertson Wesley J
4 Carter Rose N Mrs
5 Bailey Tom
6 Maso John
1357 **Apartments**
1 Bailey Warren
2 No Return
3 Ross Agnes Mrs
4 Steevart Willie
5 Edmonds Margt
6 Simmons Edw L jr
1361 **Apartments**
1 Kemp Aldois
2 Edwards Nadine Mrs
3 Cole Jas
4 Branch Edw H
5 Bland John 325-6862
6 Goins Travis
1365 **Apartments**
1 Avery Henry L
2 Kemon Alleroy
3 Ford Dora Mrs
4 Dickens Chas
5 Brown DelRoy
6 Hall Rolland E
1369 **Apartments**
1 Kemp Wm
2 Taylor Henry F
3 Vacant
4 Sikes Orval
1373 **Apartments**
1 Sutton Blain L
2 Taylor Renata Mrs
3 Manseer Abdel 324-0732
4 Dalton James R
1377 **Apartments**
1 DelArroz Jose
3 Welch Homer
5 Thamsten Wm
7 Phelan Eleanor J Mrs
1379 **Apartments**
2 Grow Iola R Mrs
4 Wadley Rita Mrs
6 Anthony Patricia Mrs
8 McMurtry Joe W
1381 **Apartments**
1 Flohill Jas
3 Platt Jas

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

WILLOW RD 1963

WILLOW RD--Contd
1381 Apts--Contd
5 Vedovato Antonio
324-0313
4 McMurrian James P
1385 **Apartments**
2 Vacant
4 Vacant
6 Foley Albert
8 Russell Ralph E
Street continued
1389 Baine Furn Store
Contour Barber Shop The
Dora's Beauty Bar
DA3-8157
Last Chance Bar B-Q
DA3-8559
Miles TV & Records
record shop
Neighborhood Fish Mkt
Hamilton intersects
1520 No Return

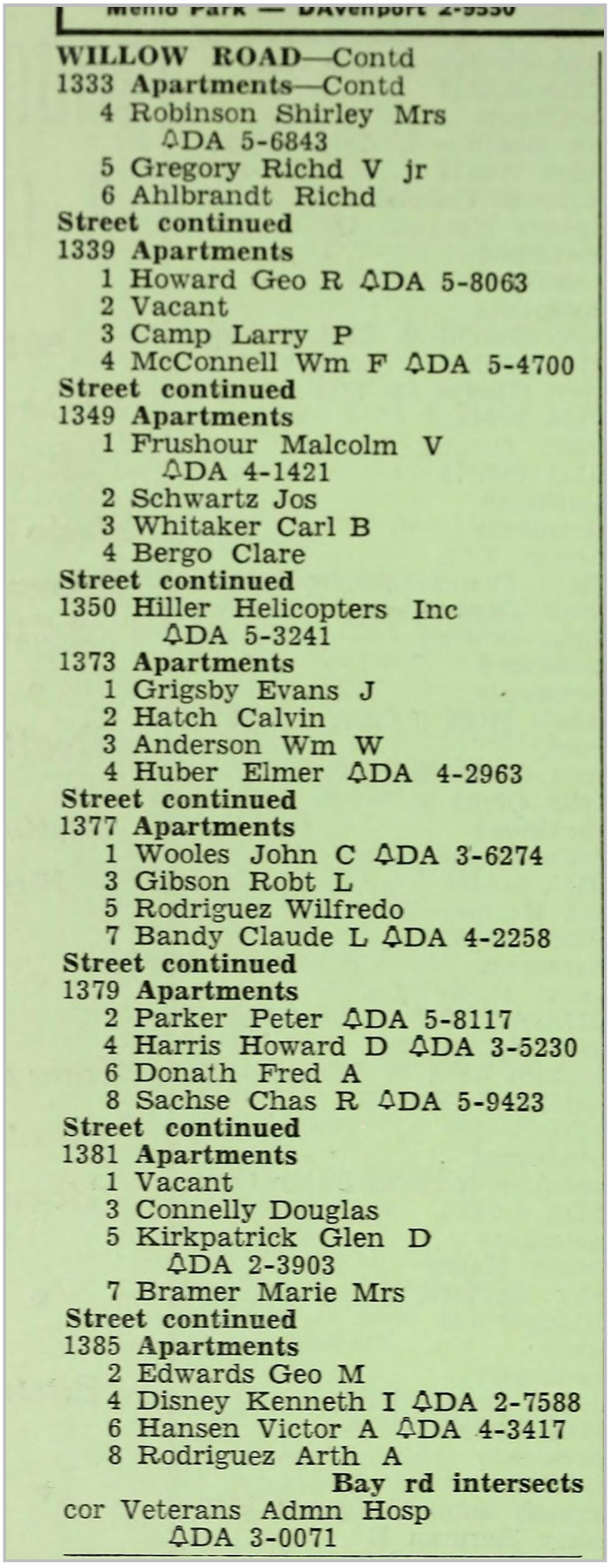
Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

WILLOW RD 1957

1239 **Apartments**
2 Price Beatrice L ΔDA 4-2626
4 Holden Wm J
6 Bournival Gabriel J
8 Wagoner Kenneth O
Street continued
1240 Vacant
1243 **Apartments**
1 Moore Harold A ΔDA 6-0776
2 Niklason Carl C ΔDA 2-5442
3 Oliver Gladys G Mrs
ΔDA 3-0766
4 Rucker Donald J
ΔDA 6-0478
Street continued
1247 **Apartments**
1 Trahern V L
2 Ballam Dennis ΔDA 6-1663
3 Russell Danl A
4 Walrod Warren
Street continued
1249 **Apartments**
1 Bennett Robt J ΔDA 2-7646
2 Vacant
3 Morris Glenn E
4 Martin Clyde V
Street continued
1250 Clark's Barber Shop
ΔDA 5-6467
Clark Herman J ©
ΔDA 5-6467
1253 **Apartments**
1 Stumpf Marie Mrs
ΔDA 4-3132
3 Pinzon Naomi Mrs
5 Newcomb Robt W ΔDA 4-4470
7 Mendenhall Wm K
ΔDA 2-4389
Street continued
1254 Creekmore & Hicks Union Serv
ΔDA 4-3835
1255 **Apartments**
2 Spooner Helen
4 Lowry Sanford E
6 Raubinger Jas
8 Vacant
Street continued
1258 Melton's Signal Serv
ΔDA 6-2237
1259 **Apartments**
1 Cano Geo
3 Hampton John T ΔDA 6-2652
5 Chaney Herman E
7 McGill Jesse D ΔDA 2-5038
Street continued
1260 Nelson Texaco ΔDA 3-8828
1263 **Apartments**
2 Brown Norman D
4 Ludwig E R
6 Henderson Danl
8 Raventos Peter ΔDA 6-1831
Street continued
1283 Cardinal Appl Serv
ΔDA 2-0507
1291 Joe & Bill's Flying A Serv
ΔDA 4-1879
1300 McKee Dave Norwalk Serv
ΔDA 6-0272
1333 **Apartments**
1 Loeb Edwin C ΔDA 5-2768
2 Prestridge Marvin ΔDA 5-0525
3 Smith David

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

WILLOW RD 1957



Menlo Park — DAvenport 2-9330

WILLOW ROAD—Contd
1333 **Apartments**—Contd
4 Robinson Shirley Mrs
ΔDA 5-6843
5 Gregory Richd V jr
6 Ahlbrandt Richd
Street continued
1339 **Apartments**
1 Howard Geo R ΔDA 5-8063
2 Vacant
3 Camp Larry P
4 McConnell Wm F ΔDA 5-4700
Street continued
1349 **Apartments**
1 Frushour Malcolm V
ΔDA 4-1421
2 Schwartz Jos
3 Whitaker Carl B
4 Bergo Clare
Street continued
1350 Hiller Helicopters Inc
ΔDA 5-3241
1373 **Apartments**
1 Grigsby Evans J
2 Hatch Calvin
3 Anderson Wm W
4 Huber Elmer ΔDA 4-2963
Street continued
1377 **Apartments**
1 Wooles John C ΔDA 3-6274
3 Gibson Robt L
5 Rodriguez Wilfredo
7 Bandy Claude L ΔDA 4-2258
Street continued
1379 **Apartments**
2 Parker Peter ΔDA 5-8117
4 Harris Howard D ΔDA 3-5230
6 Donath Fred A
8 Sachse Chas R ΔDA 5-9423
Street continued
1381 **Apartments**
1 Vacant
3 Connelly Douglas
5 Kirkpatrick Glen D
ΔDA 2-3903
7 Bramer Marie Mrs
Street continued
1385 **Apartments**
2 Edwards Geo M
4 Disney Kenneth I ΔDA 2-7588
6 Hansen Victor A ΔDA 4-3417
8 Rodriguez Arth A
Bay rd intersects
cor Veterans Admn Hosp
ΔDA 3-0071

The Gateway Gardens Apartments

1317 - 1345 Willow Road

Menlo Park, CA 94025

Inquiry Number: 5654286.3

May 16, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

05/16/19

Site Name:

The Gateway Gardens Apartme
1317 - 1345 Willow Road
Menlo Park, CA 94025
EDR Inquiry # 5654286.3

Client Name:

Integrated Property Analysis
550 West Vista Way Suite 212
Vista, CA 92083
Contact: Michael Atallah

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The Gateway Gardens Apartments
1317 - 1345 Willow Road
Menlo Park, CA 94025

Inquiry Number: 5654286.2s
May 22, 2019

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Default Area of Concern (Miles)*	property	1/10	> 1/10
Federal NPL site list	1.0	0	0	0
Federal Delisted NPL site list	1.0	0	0	0
Federal CERCLIS list	0.5	0	0	0
Federal CERCLIS NFRAP site list	0.5	0	0	0
Federal RCRA CORRACTS facilities list	1.0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list	0.5	0	0	0
Federal RCRA generators list	0.25	0	1	1
Federal institutional controls / engineering controls registries	0.5	0	0	0
Federal ERNS list	0.001	0	0	-
State- and tribal - equivalent NPL	1.0	0	0	0
State- and tribal - equivalent CERCLIS	1.0	0	1	1
State and tribal landfill and/or solid waste disposal site lists	0.5	0	0	0
State and tribal leaking storage tank lists	0.5	0	2	5
State and tribal registered storage tank lists	0.25	0	0	0
State and tribal institutional control / engineering control registries	not searched	-	-	-
State and tribal voluntary cleanup sites	0.5	0	1	0
State and tribal Brownfields sites	0.5	0	0	1

ADDITIONAL ENVIRONMENTAL RECORDS				
Local Brownfield lists	0.5	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5	0	0	0
Local Lists of Hazardous waste / Contaminated Sites	1.0	0	0	5
Local Lists of Registered Storage Tanks	0.25	0	0	2
Local Land Records	0.5	0	0	0
Records of Emergency Release Reports	0.5	0	0	1
Other Ascertainable Records	1.0	6	2	10

EDR HIGH RISK HISTORICAL RECORDS				
EDR Exclusive Records	1.0	0	1	0
Exclusive Recovered Govt. Archives	0.001	0	0	-

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

EDR Exclusive Records	1.0	0	1	0
Exclusive Recovered Govt. Archives	0.001	0	0	-

*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

THE GATEWAY GARDENS APARTMENTS
1317 - 1345 WILLOW ROAD
MENLO PARK, CA 94025

COORDINATES

Latitude (North):	37.477617 - 37° 28′ 39.415283″
Longitude (West):	122.152572 - 122° 9′ 9.261475″
Elevation:	10 ft. above sea level

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records.

Site	Database(s)
THE GATEWAY 1345 WILLOW RD UNIT F MENLO PARK, CA 94025	HAZNET GEPAID: CAC002642005
MID-PEN HOUSING 1321 WILLOW RD STE C & F MENLO PARK, CA 94025	HAZNET GEPAID: CAC002692022
GATEWAY APARTMENTS 1345 WILLOW RD UNIT 1317A MENLO PARK, CA 940251533	HAZNET GEPAID: CAC002744413
GATEWAY APARTMENTS 1339 WILLOW RD MENLO PARK, CA 940251534	HAZNET GEPAID: CAC002867231
MID PEN HOUSING 1345 WILLOW RD MENLO PARK, CA 940251533	HAZNET GEPAID: CAC002725183
ROBERT MEYERS 1345 WILLOW RD UNIT 1321 A&B MENLO PARK, CA 940251533	HAZNET GEPAID: CAC002673482

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
WILLOW OFFICE PARK VCP: VCP ENVIROSTOR: ENVIROSTOR	1350-1390 WILLOW RD., 925-1098 HAMILTON AVE. & 1005-1275 HAM	<1/10 SE	▲ A7	14
FEDERAL EXPRESS RCRA-SQG: RCRA-SQG ECHO: ECHO FINDS: FINDS CIWQS: CIWQS LUST: LUST San Mateo Co. BI: San Mateo Co. BI HAZNET: HAZNET	1392 WILLOW RD	<1/10 NE	◆ 8	16
WILLOW CORNERS LLC-UST SITE CERS: CERS LUST: LUST San Mateo Co. BI: San Mateo Co. BI	1283 WILLOW	<1/10 SSW	▲ 9	21
SANFORD METAL PROCESSING INC RCRA-SQG: RCRA-SQG ENVIROSTOR: ENVIROSTOR	990 O BRIEN DR	1/10 - 1/3 SSE	▲ G11	23
NOREN PRODUCTS INC LUST: LUST HAZNET: HAZNET	1010 OBRIEN DR	1/10 - 1/3 SSE	▲ G14	91
NOREN PRODUCTS CPS-SLIC: CPS-SLIC	1010 O'BRIEN DRIVE	1/10 - 1/3 SSE	▲ G15	93
WESTBAY STEEL INC CERS: CERS LUST: LUST San Mateo Co. BI: San Mateo Co. BI HIST CORTESE: HIST CORTESE	1 CASEY	1/10 - 1/3 ESE	▲ 21	142
JUPITER ENGINEERING LUST: LUST	1105 O'BRIEN	1/10 - 1/3 SE	▲ P22	145
KITTY CLEANERS CERS: CERS CPS-SLIC: CPS-SLIC BROWNFIELDS: BROWNFIELDS	910 NEWBRIDGE	1/10 - 1/3 SSW	▲ 23	146

ADDITIONAL ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
THE GATEWAY	1345 WILLOW RD UNIT F	Property	▲ A1	10

EXECUTIVE SUMMARY

Name	Address	Dist/Dir	Map ID	Page
HAZNET: HAZNET				
MID-PEN HOUSING HAZNET: HAZNET	1321 WILLOW RD STE C & F	Property	▲ A2	11
GATEWAY APARTMENTS HAZNET: HAZNET	1345 WILLOW RD UNIT 1317A	Property	▲ A3	12
GATEWAY APARTMENTS HAZNET: HAZNET	1339 WILLOW RD	Property	▲ A4	12
MID PEN HOUSING HAZNET: HAZNET	1345 WILLOW RD	Property	▲ A5	13
ROBERT MEYERS HAZNET: HAZNET	1345 WILLOW RD UNIT 1321 A&B	Property	▲ A6	13
FEDERAL EXPRESS RCRA-SQG: RCRA-SQG ECHO: ECHO FINDS: FINDS CIWQS: CIWQS LUST: LUST San Mateo Co. BI: San Mateo Co. BI HAZNET: HAZNET	1392 WILLOW RD	<1/10 NE	◆ 8	16
WILLOW CORNERS LLC-UST SITE CERS: CERS LUST: LUST San Mateo Co. BI: San Mateo Co. BI	1283 WILLOW	<1/10 SSW	▲ 9	21
SANFORD METAL PROCESSING CO CERS: CERS CIWQS: CIWQS EMI: EMI San Mateo Co. BI: San Mateo Co. BI CHMIRS: CHMIRS WDS: WDS HIST UST: HIST UST NPDES: NPDES CERS HAZ WASTE: CERS HAZ WASTE	990 O'BRIEN DRIVE	1/10 - 1/3 SSE	▲ G12	27
ELECTRO MOTION INC CERS: CERS CERS HAZ WASTE: CERS HAZ WASTE	1001 OBRIEN DR	1/10 - 1/3 SSE	▲ I13	84
NOREN PRODUCTS INC LUST: LUST HAZNET: HAZNET	1010 OBRIEN DR	1/10 - 1/3 SSE	▲ G14	91
A & B PROPERTY CORP CERS: CERS HAZNET: HAZNET CERS HAZ WASTE: CERS HAZ WASTE	990 HAMILTON	1/10 - 1/3 ESE	▲ 16	94

EXECUTIVE SUMMARY

Name	Address	Dist/Dir	Map ID	Page
AVALANCHE BIOTECHNOLGIES INC CERS: CERS CERS HAZ WASTE: CERS HAZ WASTE	1035 OBRIEN DR	1/10 - 1/3 SSE	▲ I17	100
C S BIO CO CIWQS: CIWQS San Mateo Co. BI: San Mateo Co. BI NPDES: NPDES	20 KELLY COURT	1/10 - 1/3 SE	▲ K18	110
C S BIO CERS: CERS CERS HAZ WASTE: CERS HAZ WASTE	20 KELLY CT	1/10 - 1/3 SE	▲ K19	115
VACANT COMMERCIAL SWEEPS UST: SWEEPS UST HIST CORTESE: HIST CORTESE	1105 O'BRIEN DR	1/10 - 1/3 SE	▲ P20	141
WESTBAY STEEL INC CERS: CERS LUST: LUST San Mateo Co. BI: San Mateo Co. BI HIST CORTESE: HIST CORTESE	1 CASEY	1/10 - 1/3 ESE	▲ 21	142
KITTY CLEANERS CERS: CERS CPS-SLIC: CPS-SLIC BROWNFIELDS: BROWNFIELDS	910 NEWBRIDGE	1/10 - 1/3 SSW	▲ 23	146

EDR HIGH RISK HISTORICAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
BELCHER CLEVIE EDR Hist Auto: EDR Hist Auto	1300 WILLOW RD	<1/10 S	▲ 10	23

EDR RECOVERED GOVERNMENT ARCHIVES

Name	Address	Dist/Dir	Map ID	Page
Not Reported				

PRIMARY MAP - 5654286.2S

0 300 1/3 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	The Gateway Gardens Apartments	CLIENT:	Integrated Property Analysis
ADDRESS:	1317 - 1345 Willow Road Menlo Park CA 94025	CONTACT:	Michael Atallah
LAT/LONG:	37.477617 / 122.152572	INQUIRY #:	5654286.2s
		DATE:	May 16, 2019 12:34 pm

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SECONDARY MAP - 5654286.2S

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/3 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Upgradient Area

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	The Gateway Gardens Apartments	CLIENT:	Integrated Property Analysis
ADDRESS:	1317 - 1345 Willow Road Menlo Park CA 94025	CONTACT:	Michael Atallah
		INQUIRY #:	5654286.2s
LAT/LONG:	37.477617 / 122.152572	DATE:	May 16, 2019 12:34 pm

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MAP FINDINGS

LEGEND

FACILITY NAME **FACILITY ADDRESS, CITY, ST, ZIP**		EDR SITE ID NUMBER
◆ **MAP ID#**	Direction Distance Range (Distance feet / miles) Relative Elevation Feet Above Sea Level	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.

Worksheet:

Comments:
Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

THE GATEWAY 1345 WILLOW RD UNIT F, MENLO PARK, CA, 94025		S112977678
▲ A1	Target Property 10 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	THE GATEWAY
Year:	2010
GEPAID:	CAC002642005
Contact:	JENNIFER JOHNSON
Telephone:	6503235615
Mailing Name:	Not Reported
Mailing Address:	1345 WILLOW RD UNIT F
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	Not Reported
TSD EPA ID:	CAD982042475
TSD County:	Not Reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	4
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	THE GATEWAY
Year:	2009
GEPAID:	CAC002642005
Contact:	JENNIFER JOHNSON
Telephone:	6503235615

THE GATEWAY, 1345 WILLOW RD UNIT F, MENLO PARK, CA 94025 (Continued)

Mailing Name:	Not Reported
Mailing Address:	1345 WILLOW RD UNIT F
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	Not Reported
TSD EPA ID:	CAD981382732
TSD County:	Not Reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	THE GATEWAY
Year:	2009
GEPAID:	CAC002642005
Contact:	JENNIFER JOHNSON
Telephone:	6503235615
Mailing Name:	Not Reported
Mailing Address:	1345 WILLOW RD UNIT F
Mailing City,St,Zip:	MENLO PARK, CA 94025
Gen County:	Not Reported
TSD EPA ID:	CAD982042475
TSD County:	Not Reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

MID-PEN HOUSING
1321 WILLOW RD STE C & F, MENLO PARK, CA, 94025 S113778458

▲ A2	Target Property	Other Ascertainable Records
	10 ft. Above Sea Level	

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	MID-PEN HOUSING
Year:	2012
GEPAID:	CAC002692022
Contact:	mike pereira
Telephone:	6502696000
Mailing Name:	Not Reported
Mailing Address:	303 VINTAGE PARK DR STE 250
Mailing City,St,Zip:	FOSTER CITY, CA 944041176

MID-PEN HOUSING, 1321 WILLOW RD STE C & F, MENLO PARK, CA 94025 (Continued)

Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Not Reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

GATEWAY APARTMENTS
1345 WILLOW RD UNIT 1317A, MENLO PARK, CA, 940251533 S117301376

▲ A3	Target Property	Other Ascertainable Records
	10 ft. Above Sea Level	

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	GATEWAY APARTMENTS
Year:	2013
GEPAID:	CAC002744413
Contact:	GATEWAY APARTMENTS
Telephone:	6508340490
Mailing Name:	Not Reported
Mailing Address:	1345 WILLOW RD UNIT 1317A
Mailing City,St,Zip:	MENLO PARK, CA 940251533
Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Not Reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.8
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Not Reported

GATEWAY APARTMENTS
1339 WILLOW RD, MENLO PARK, CA, 940251534 S121003351

▲ A4	Target Property	Other Ascertainable Records
	10 ft. Above Sea Level	

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	GATEWAY APARTMENTS

GATEWAY APARTMENTS, 1339 WILLOW RD, MENLO PARK, CA 940251534 (Continued)

Year:	2016
GEPAID:	CAC002867231
Contact:	OSMIN ZELAYA
Telephone:	4089531400
Mailing Name:	Not Reported
Mailing Address:	1339 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251534
Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.23
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

MID PEN HOUSING
1345 WILLOW RD, MENLO PARK, CA, 940251533 S117288536

▲ A5	Target Property	Other Ascertainable Records
	10 ft. Above Sea Level	

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	MID PEN HOUSING
Year:	2013
GEPAID:	CAC002725183
Contact:	SHAMETRA ROCHELLE
Telephone:	6503235615
Mailing Name:	Not Reported
Mailing Address:	1345 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251533
Gen County:	San Mateo
TSD EPA ID:	CAD981382732
TSD County:	Alameda
Waste Category:	Not Reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Not Reported

ROBERT MEYERS
1345 WILLOW RD UNIT 1321 A&B, MENLO PARK, CA, 940251533 S112991525

▲ A6	Target Property 10 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	ROBERT MEYERS
Year:	2011
GEPAID:	CAC002673482
Contact:	ROBERT MEYERS
Telephone:	6503235615
Mailing Name:	Not Reported
Mailing Address:	1345 WILLOW RD
Mailing City,St,Zip:	MENLO PARK, CA 940251533
Gen County:	Not Reported
TSD EPA ID:	CAD981382732
TSD County:	Not Reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

WILLOW OFFICE PARK 1350-1390 WILLOW RD., 925-1098 HAMILTON AVE. & 1005-1275 HAM, MENLO PARK, CA, 94025		S121475158
▲ A7	SE <1/10 (130 ft. / 0.025 mi.) Equal Elevation 10 ft. Above Sea Level	State- and tribal - equivalent CERCLIS State and tribal voluntary cleanup sites

Worksheet:

ENVIROSTOR: State- and tribal - equivalent CERCLIS

Facility ID:	60002595
Status:	Active
Status Date:	01/04/2018
Site Code:	202169
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	56
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Karen Steen
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Assembly:	, 24
Senate:	, 13

WI (Continued)

Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.47841
Longitude:	-122.1488
APN:	NONE SPECIFIED
Past Use:	AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS
Potential COC:	Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,2-Dichloroethylene (cis
Confirmed COC:	Tetrachloroethylene (PCE Trichloroethylene (TCE Vinyl chloride 1,2-Dichloroethylene (cis
Potential Description:	OTH, SV
Alias Name:	202169
Alias Type:	Project Code (Site Code)
Alias Name:	60002595
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	08/09/2018
Comments:	Not Reported
Future Area Name:	Not Reported
Future Sub Area Name:	Not Reported
Future Document Type:	Not Reported
Future Due Date:	Not Reported
Schedule Area Name:	Not Reported
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Not Reported
Schedule Due Date:	Not Reported
Schedule Revised Date:	Not Reported

VCP: State and tribal voluntary cleanup sites

Facility ID:	60002595
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	56
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Karen Steen
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Site Code:	202169

WI (Continued)

Assembly:	, 24
Senate:	, 13
Special Programs Code:	Voluntary Cleanup Program
Status:	Active
Status Date:	01/04/2018
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	37.47841 / -122.1488
APN:	NONE SPECIFIED
Past Use:	AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS
Potential COC:	30022, 30027, 30028, 30195
Confirmed COC:	30022,30027,30028,30195
Potential Description:	OTH, SV
Alias Name:	202169
Alias Type:	Project Code (Site Code)
Alias Name:	60002595
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	08/09/2018
Comments:	Not Reported
Future Area Name:	Not Reported
Future Sub Area Name:	Not Reported
Future Document Type:	Not Reported
Future Due Date:	Not Reported
Schedule Area Name:	Not Reported
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Not Reported
Schedule Due Date:	Not Reported
Schedule Revised Date:	Not Reported

FEDERAL EXPRESS 1392 WILLOW RD, MENLO PARK, CA, 94025			1000214109
◆ 8	NE <1/10	(261 ft. / 0.049 mi.)	Federal RCRA generators list State and tribal leaking storage tank lists Other Ascertainable Records
	2 ft. Lower Elevation	8 ft. Above Sea Level	

Worksheet:

RCRA-SQG: Federal RCRA generators list

Date form received by agency:	08/02/1989
Facility name:	FEDERAL EXPRESS
Facility address:	1392 WILLOW RD MENLO PARK, CA 94025
EPA ID:	CAD982348468

FEDERAL EXPRESS, 1392 WILLOW RD, MENLO PARK, CA 94025 (Continued)

Mailing address:	950 TOWERLANE SUITE 1000 FOSTER CITY, CA 94404
Contact:	ENVIRONMENTAL MANAGER
Contact address:	1392 WILLOW RD MENLO PARK, CA 94025
Contact country:	US
Contact telephone:	415-430-0244
Contact email:	Not Reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	FREDRICK SMITH
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not Reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not Reported
Owner/operator fax:	Not Reported
Owner/operator extension:	Not Reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not Reported
Owner/Op end date:	Not Reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not Reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not Reported
Owner/operator fax:	Not Reported
Owner/operator extension:	Not Reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not Reported
Owner/Op end date:	Not Reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No

FEDERAL EXPRESS, 1392 WILLOW RD, MENLO PARK, CA 94025 (Continued)

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS: Other Ascertainable Records

Registry ID: 110002798456

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

The Click here to access additional FINDS: detail in the EDR Site Report. database contains
http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=6dDe691Id8.mDwFgeLHc3c5f93ZR1lsoIMerAa7C8WST.N4jm6ac5JuiwycOFnH5gA0C3ug
GLEs1HnnYcBLI4aWCcGeP57nrfXRoAXHI3WfUZFM3RRQx8oUAlhM7s.aGoLLlApLfMya4eFIZrFCY8kHmat8Z78XBCXNa6dKxdVdjDZj9eniI3B
BK93jS1euIIP9G9mv18HDD.e9rmjmY34icwxu5FcmSgHOH8.a7L..ZHMZxcPeN4MJkcfwm5p4ZfYKG9H603nOWZEpkRnLd4je3lR7osCOgoovW
ChpnMkJme3fRr8n46CE9deGhDuvVeELA4ZxI9DSS14jQIm5f3B6D8Fw0.hBgm5Vp8Iw9wqWCFQBdgfn99aj0LQJzHzEhc0nC8D1EcbON5iTxfcE
H78813xuFZqnfRqGl5wn0lDaDsIrDozD7BTiFMOqJebPurqR79bRvadUk7E9MCZ3n2hdkW8E9SEQITsaT5v6.NK1u4.Ogj.mYvzbz6xU5ajR6cRH
06VjEd0OQDnC7eZUS4Qca9dci1UEHIo6m3Ee.8W0Z.YDkmVNp4y8zwgGFFs47gUbF3mlrLE93HfFMc45F3p8DcvSg5B3Qf1md3bdo3KqmZ0Iz
RtZU55iule6bsWD7oYY04ExRMJGMesMJrnEl7VUsaxRG7ZnACNUr460dWLauSqTwT0la3DcYNozf4MDCjLDTCI6Z6GjuahrNc15v3 additional records for this site. Please contact your EDR Account Executive for more information.

ECHO: Other Ascertainable Records

Envid:	1000214109
Registry ID:	110002798456
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002798456

San Mateo Co. BI: Other Ascertainable Records

Region:	SAN MATEO
Facility ID:	FA0023003
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0025997
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0023003
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0025998
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0026893
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE

FEDERAL EXPRESS, 1392 WILLOW RD, MENLO PARK, CA 94025 (Continued)

Record Id:	PR0040667
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0026893
Prog Element Code:	STORES HAZ MAT <6999 GAL, 55999 LB, 2799FT^3
Record Id:	PR0039943
Description:	STORES HAZ MAT <6999 GAL, 55999 LB, 2799CF
Facility Status:	Inactive, non-billable

HAZNET: Other Ascertainable Records

Site Name:	FEDERAL EXPRESS
Year:	1997
GEPAID:	CAD982348468
Contact:	Not Reported
Telephone:	0000000000
Mailing Name:	Not Reported
Mailing Address:	3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip:	MEMPHIS, TN 381168415
Gen County:	Not Reported
TSD EPA ID:	CAD093459485
TSD County:	Not Reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Transfer Station
Tons:	.1162
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	FEDERAL EXPRESS
Year:	1997
GEPAID:	CAD982348468
Contact:	Not Reported
Telephone:	0000000000
Mailing Name:	Not Reported
Mailing Address:	3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip:	MEMPHIS, TN 381168415
Gen County:	Not Reported
TSD EPA ID:	CAD028409019
TSD County:	Not Reported
Waste Category:	Contaminated soil from site clean-up
Disposal Method:	Transfer Station
Tons:	.0100
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	FEDERAL EXPRESS
Year:	1996
GEPAID:	CAD982348468

FEDERAL EXPRESS, 1392 WILLOW RD, MENLO PARK, CA 94025 (Continued)

Contact:	Not Reported
Telephone:	0000000000
Mailing Name:	Not Reported
Mailing Address:	3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip:	MEMPHIS, TN 381168415
Gen County:	Not Reported
TSD EPA ID:	CAD093459485
TSD County:	Not Reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Transfer Station
Tons:	.1162
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

Site Name:	FEDERAL EXPRESS
Year:	1996
GEPAID:	CAD982348468
Contact:	Not Reported
Telephone:	0000000000
Mailing Name:	Not Reported
Mailing Address:	3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip:	MEMPHIS, TN 381168415
Gen County:	Not Reported
TSD EPA ID:	CAD980887418
TSD County:	Not Reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Transfer Station
Tons:	.2085
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

Site Name:	FEDERAL EXPRESS
Year:	1996
GEPAID:	CAD982348468
Contact:	Not Reported
Telephone:	0000000000
Mailing Name:	Not Reported
Mailing Address:	3975 AIRWAYS BLVD MODULE E 1ST FLR
Mailing City,St,Zip:	MEMPHIS, TN 381168415
Gen County:	Not Reported
TSD EPA ID:	CAD009452657
TSD County:	Not Reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Recycler
Tons:	.0150
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

FEDERAL EXPRESS, 1392 WILLOW RD, MENLO PARK, CA 94025 (Continued)

The Click here to access 9 additional CA_HAZNET: record(s) in the EDR Site Report. database contains http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=6dDe691Id8.mDwFgeLHc3c5f93ZR1lsoIMerAa7C8WST.N4jm6ac5JuiwycOFnH5gA0C3ugGLEs1HnnYcBLI4aWCcGeP57nrfXRoAXHI3WfUZFM3RRQx8oUAlhM7s.aGoLLIApLfMya4eFIZrFCY8kHmat8Z78XBCXNa6dKxdVdjDZj9eniI3BBK93jS1euIIP9G9mv18HDD.e9rmjmY34icwxu5FcmSgHOH8.a7L..ZHMZxcPeN4MJkcfwm5p4ZfYKG9H603nOWZEpkRnLd4je3lR7osCOgoovWChpnMkJme3fRr8n46CE9deGhDuvVeELA4ZxI9DSS14jQIm5f3B6D8Fw0.hBgm5Vp8Iw9wqWCFQBdgfn99aj0LQJzHzEhc0nC8D1EcbON5iTxfcEH78813xuFZqnfRqGl5wn0lDaDsIrDozD7BTiFMOqJebPurqR79bRvadUk7E9MCZ3n2hdkW8E9SEQITsaT5v6.NK1u4.Ogj.mYvzbz6xU5ajR6cRH06VjEd0OQDnC7eZUS4Qca9dci1UEHIo6m3Ee.8W0Z.YDkmVNp4y8zwgGFFs47gUbF3mlrLE93HfFMc45F3p8DcvSg5B3Qf1md3bdo3KqmZ0IzRtZU55iule6bsWD7oYY04ExRMJGMesMJrnEl7VUsaxRG7ZnACNUr460dWLauSqTwT0la3DcYNozf4MDCjLDTCI6Z6GjuahrNc15v3 additional records for this site. Please contact your EDR Account Executive for more information.

CIWQS: Other Ascertainable Records

Agency:	Fed Ex
Agency Address:	3750 Haven Ave, Menlo Park, CA 94025
Place/Project Type:	Industrial - Air Courier Services
SIC/NAICS:	4513
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 41I005986
NPDES Number:	CAS000001
Adoption Date:	Not Reported
Effective Date:	04/17/1992
Termination Date:	10/06/1998
Expiration/Review Date:	Not Reported
Design Flow:	Not Reported
Major/Minor:	Not Reported
Complexity:	Not Reported
TTWQ:	Not Reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.47968
Longitude:	-122.15089

WILLOW CORNERS LLC-UST SITE 1283 WILLOW, MENLO PARK, CA, 94025			S104493836
▲ 9	SSW <1/10	(317 ft. / 0.06 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

LUST: State and tribal leaking storage tank lists

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608192683
Global Id:	T0608192683
Latitude:	37.476435
Longitude:	-122.152822
Status:	Completed - Case Closed
Status Date:	06/14/2000

WILLOW CORNERS LLC-UST SITE, 1283 WILLOW, MENLO PARK, CA 94025 (Continued)

Case Worker:	Not Reported
RB Case Number:	41-1246
Local Agency:	Not Reported
File Location:	Local Agency
Local Case Number:	440061
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not Reported

LUST:

Global Id:	T0608192683
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not Reported
Phone Number:	Not Reported

LUST:

Global Id:	T0608192683
Action Type:	Other
Date:	10/12/1999
Action:	Leak Reported

Global Id:	T0608192683
Action Type:	ENFORCEMENT
Date:	02/15/2000
Action:	Notice of Responsibility - #1

LUST:

Global Id:	T0608192683
Status:	Completed - Case Closed
Status Date:	06/14/2000

Global Id:	T0608192683
Status:	Open - Case Begin Date
Status Date:	10/12/1999

San Mateo Co. BI: Other Ascertainable Records

Region:	SAN MATEO
Facility ID:	FA0037606
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0054355
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable

CERS TANKS: Other Ascertainable Records

WILLOW CORNERS LLC-UST SITE, 1283 WILLOW, MENLO PARK, CA 94025 (Continued)

Site ID:	254841
CERS ID:	T0608192683
Site Name:	CLARK PROPERTY
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not Reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

BELCHER CLEVIE 1300 WILLOW RD, MENLO PARK, CA, 94025			1020671387
▲ 10	S <1/10	(370 ft. / 0.07 mi.)	EDR Exclusive Records
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year:	Name: / Type:
1971:	BELCHER CLEVIE / Gasoline Service Stations
1972:	BELCHER CLEVIE / Gasoline Service Stations

SANFORD METAL PROCESSING INC 990 O BRIEN DR, MENLO PARK, CA, 94025			1001486823
▲ G11	SSE 1/10 - 1/3	(691 ft. / 0.131 mi.)	Federal RCRA generators list State- and tribal - equivalent CERCLIS
	3 ft. Higher Elevation	13 ft. Above Sea Level	

Worksheet:

RCRA-SQG: Federal RCRA generators list

Date form received by agency:	05/12/1999
Facility name:	SANFORD METAL PROCESSING INC
Facility address:	990 O BRIEN DR MENLO PARK, CA 94025
EPA ID:	CAD981425580
Contact:	JOSE SANDOVAL
Contact address:	990 O BRIEN DR MENLO PARK, CA 94025

SANFORD METAL PROCESSING INC, 990 O BRIEN DR, MENLO PARK, CA 94025 (Continued)

Contact country:	US
Contact telephone:	650-327-5172
Contact email:	Not Reported
EPA Region:	09
Land type:	Private
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	JOSE SANDOVAL
Owner/operator address:	990 O BRIEN DR MENLO PARK, CA 94025
Owner/operator country:	Not Reported
Owner/operator telephone:	650-327-5172
Owner/operator email:	Not Reported
Owner/operator fax:	Not Reported
Owner/operator extension:	Not Reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not Reported
Owner/Op end date:	Not Reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	D000
. Waste name:	Not Defined
. Waste code:	D001
. Waste name:	IGNITABLE WASTE
. Waste code:	D002
. Waste name:	CORROSIVE WASTE
. Waste code:	D003

SANFORD METAL PROCESSING INC, 990 O BRIEN DR, MENLO PARK, CA 94025 (Continued)

. Waste name:	REACTIVE WASTE
. Waste code:	D006
. Waste name:	CADMIUM
. Waste code:	D007
. Waste name:	CHROMIUM
. Waste code:	D035
. Waste name:	METHYL ETHYL KETONE
. Waste code:	F005
. Waste name:	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
. Waste code:	F006
. Waste name:	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
. Waste code:	F007
. Waste name:	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.
. Waste code:	F008
. Waste name:	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.
. Waste code:	F009
. Waste name:	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

Historical Generators:

Date form received by agency:	02/21/1996
Site name:	SANFORD METAL PROCESSING, INC.
Classification:	Large Quantity Generator
Date form received by agency:	03/03/1992
Site name:	SANFORD METAL PROCESSING CO.
Classification:	Large Quantity Generator
Date form received by agency:	04/30/1990
Site name:	SANFORD METAL PROCESSING INC.
Classification:	Large Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated:	Not Reported
Area of violation:	Generators - General
Date violation determined:	02/11/2005
Date achieved compliance:	03/11/2005
Violation lead agency:	State

SANFORD METAL PROCESSING INC, 990 O BRIEN DR, MENLO PARK, CA 94025 (Continued)

Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	02/11/2005
Enf. disposition status:	Not Reported
Enf. disp. status date:	Not Reported
Enforcement lead agency:	State
Proposed penalty amount:	Not Reported
Final penalty amount:	Not Reported
Paid penalty amount:	Not Reported

Evaluation Action Summary:

Evaluation date:	02/11/2005
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	03/11/2005
Evaluation lead agency:	State Contractor/Grantee

Evaluation date:	03/31/1999
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not Reported
Date achieved compliance:	Not Reported
Evaluation lead agency:	EPA

ENVIROSTOR: State- and tribal - equivalent CERCLIS

Facility ID:	71002837
Status:	Refer: Other Agency
Status Date:	Not Reported
Site Code:	Not Reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not Reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not Reported
Supervisor:	Not Reported
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Not Reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Reported
Latitude:	37.47493
Longitude:	-122.1516
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD981425580

SANFORD METAL PROCESSING INC, 990 O BRIEN DR, MENLO PARK, CA 94025 (Continued)

Alias Type:	EPA Identification Number
Alias Name:	110021329463
Alias Type:	EPA (FRS #)
Alias Name:	71002837
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Phase I Verification
Completed Date:	08/31/1998
Comments:	Inspection report sent on 8/31/1998
Future Area Name:	Not Reported
Future Sub Area Name:	Not Reported
Future Document Type:	Not Reported
Future Due Date:	Not Reported
Schedule Area Name:	Not Reported
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Not Reported
Schedule Due Date:	Not Reported
Schedule Revised Date:	Not Reported

SANFORD METAL PROCESSING CO 990 O'BRIEN DRIVE, MENLO PARK, CA, 94025		1000230207
▲ G12	SSE 1/10 - 1/3 (691 ft. / 0.131 mi.) 3 ft. Higher Elevation 13 ft. Above Sea Level	Local Lists of Hazardous waste / Contaminated Sites Local Lists of Registered Storage Tanks Records of Emergency Release Reports Other Ascertainable Records

Worksheet:

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID:	401399
CERS ID:	10066081
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.32 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.32
Violation Description:	Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/06/2017. Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (lliquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Returned to compliance on 04/06/2017. Several rinse water (Z-1) and bath tanks (Z-3) were observed to be bulging and deteriorated. Please replace these tanks and provide confirmation to the inspector within the next 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Leaks in roof of rear chemical stg bins have allowed entry of rain water. In corrosives bin, contaminated runoff from open or improperly closed containers was observed on the floor. Clean bin floors, dispose of waste/cleaned up materials as hazardous waste and repair storage bin roofs to prevent leaks. Provide confirmation (photos and manifests) to inspector within 30 days. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	Returned to compliance on 04/06/2017. 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were open. Please close all containers of hazardous waste unless adding waste; submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes:	Returned to compliance on 06/08/2017. Observations of the hazardous waste storage issues (incorrect accumulation start date on acetone waste drum, unlabeled and open hazardous waste containers, etc.) indicate that weekly inspections are not occurring. Weekly inspections of hazardous waste storage areas are required. Begin these inspection immediately and provide records in the inspector after 30 days have passed.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (liquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 06/08/2017. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills at the end of every day and clean up these small spills within 48 hours. The system should also schedule regular cleanup of the non-RCRA hazardous waste solids (precipitate near the caustic tanks or "other organic solids"), and non-RCRA regulated solid, known as "floor sweep" or "other inorganic solids." Please develop and train your staff on a written procedure for cleanup of [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Returned to compliance on 04/12/2017. Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 06/08/2017.
Violation Division:	San Mateo County Environmental Health

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 02/26/2015. Eyewash not maintained
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Observed 5-gallon containers of hazardous waste sludge and precipitate intended for the hazardous waste super-sac (tri-wall box). Prior to disposal in super-sac these hazardous waste containers must be properly labeled and closed. Train staff to either label and close these HW containers or dispose immediately in the super-sac. Provide evidence of this training within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description:	Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Started inspection, to be completed in 2 days
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-10-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-09-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Research and letter draft for PBR closure
Eval Division:	San Mateo County Environmental Health

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-16-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Water analysis review for TP decision
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-12-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw/eval/dwnload compli photos email

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-20-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-21-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-07-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	says map/plans provided to reg - current?
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-28-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-07-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-13-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Once volumes of potential CalARP chemicals are correct, the facility will be evaluated for CalARP requirements.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewing compliance submittals
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	A few items missing from inventory and map - muriatic acid near D-2, Manganese phosphate, HW in large tank (see HW inspection regarding the HW tank).
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-03-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw past vios; fill gaps; consult LM
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-21-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Observed disassembled evaporator and discussed documention
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-19-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	extend deadline
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval General Type:	Other/Unknown
Eval Date:	06-04-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-05-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw CUPA and St online history
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-24-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HW
Enf Action Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-25-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Coordinates:

Site ID:	401399
Facility Name:	SANFORD METAL PROCESSING CO
Env Int Type Code:	SMSWIND
Program ID:	255539

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Coord Name:	Not Reported
Ref Point Type Desc:	Unknown
Latitude:	37.474910
Longitude:	-122.151040

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Jose A. Sandoval
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 492-0982
Affiliation Type Desc:	Parent Corporation
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Luis A. Alcaraz
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Jose A. Sandoval
Entity Title:	Not Reported
Affiliation Address:	990 Obrien Drive
Affiliation City:	Menlo park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Owner/Operator
Entity Name:	Jose Sandoval
Entity Title:	Operator
Affiliation Address:	990 Obrien Dr
Affiliation City:	Menlo Park

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	990 O'BRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Luis A. Alcaraz
Entity Title:	Office Manager
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not Reported
Affiliation Address:	990 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 327-5172

HIST UST: Local Lists of Registered Storage Tanks

File Number:	Not Reported
URL:	Not Reported
Region:	STATE
Facility ID:	00000047988
Facility Type:	Other

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Other Type:	METAL FINISHING
Contact Name:	GLEN HARTLE
Telephone:	4153275172
Owner Name:	SANFORD METAL PROCESSING
Owner Address:	990 O'BRIAN DRIVE
Owner City,St,Zip:	MENLO PARK, CA 94025
Total Tanks:	0002
Tank Num:	001
Container Num:	01
Year Installed:	1982
Tank Capacity:	00000220
Tank Used for:	WASTE
Type of Fuel:	Not Reported
Container Construction Thickness:	5
Leak Detection:	Visual
Tank Num:	002
Container Num:	02
Year Installed:	1982
Tank Capacity:	00000020
Tank Used for:	WASTE
Type of Fuel:	Not Reported
Container Construction Thickness:	5
Leak Detection:	Visual

CHMIRS: Records of Emergency Release Reports

OES Incident Number:	8-1777
OES notification:	04/16/1998
OES Date:	Not Reported
OES Time:	Not Reported
Date Completed:	Not Reported
Property Use:	Not Reported
Agency Id Number:	Not Reported
Agency Incident Number:	Not Reported
Time Notified:	Not Reported
Time Completed:	Not Reported
Surrounding Area:	Not Reported
Estimated Temperature:	Not Reported
Property Management:	Not Reported
More Than Two Substances Involved?:	Not Reported
Resp Agncy Personel # Of Decontaminated:	Not Reported
Responding Agency Personel # Of Injuries:	Not Reported
Responding Agency Personel # Of Fatalities:	Not Reported
Others Number Of Decontaminated:	Not Reported
Others Number Of Injuries:	Not Reported
Others Number Of Fatalities:	Not Reported
Vehicle Make/year:	Not Reported

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Vehicle License Number:	Not Reported
Vehicle State:	Not Reported
Vehicle Id Number:	Not Reported
CA DOT PUC/ICC Number:	Not Reported
Company Name:	Not Reported
Reporting Officer Name/ID:	Not Reported
Report Date:	Not Reported
Facility Telephone:	Not Reported
Waterway Involved:	No
Waterway:	Not Reported
Spill Site:	Not Reported
Cleanup By:	Responsible Party
Containment:	Not Reported
What Happened:	Not Reported
Type:	Not Reported
Measure:	Not Reported
Other:	Not Reported
Date/Time:	Not Reported
Year:	1998
Agency:	San Mateo Co OES
Incident Date:	4/16/199812:00:00 AM
Admin Agency:	San Mateo County Environmental Health
Amount:	Not Reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not Reported
Substance:	Phosphuric acid, ni-hydride, sodium hydroxide solution
Gallons:	50
Unknown:	0
Substance #2:	Not Reported
Substance #3:	Not Reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not Reported
#2 Pipeline:	Not Reported
#3 Pipeline:	Not Reported
#1 Vessel >= 300 Tons:	Not Reported
#2 Vessel >= 300 Tons:	Not Reported
#3 Vessel >= 300 Tons:	Not Reported
Evacs:	Not Reported
Injuries:	Not Reported
Fatals:	Not Reported
Comments:	Not Reported
Description:	Overheated drum burst, allowing substance to spill.

San Mateo Co. BI: Other Ascertainable Records

Region:	SAN MATEO

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Facility ID:	FA0017617
Prog Element Code:	STORES HAZ MAT >32000GAL, 240001LB, 112000FT3
Record Id:	PR0004098
Description:	STORES HAZ MAT >32000GAL, 224000LB, 112000CF
Facility Status:	Active, billable
Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	GEN <1 TONS HAZ WASTE/YR
Record Id:	PR0011447
Description:	GEN <1 TONS HAZ WASTE/YR
Facility Status:	Active, billable
Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	3091
Record Id:	PR0040579
Description:	STORMWATER ANNUAL INSPECTION FEE
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	PERMIT BY RULE (PBR)
Record Id:	PR0065542
Description:	PERMIT BY RULE (PBR)
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	RISK MANAGEMENT AND PREVENTION PLAN - GENERAL
Record Id:	PR0053921
Description:	CALARP - GENERAL
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	CONDITIONAL AUTHORIZED (CA)
Record Id:	PR0048830
Description:	CONDITIONAL AUTHORIZED (CA)
Facility Status:	Inactive, non-billable
Region:	SAN MATEO
Facility ID:	FA0017617
Prog Element Code:	CONDITIONAL AUTHORIZED (CA)
Record Id:	PR0030726
Description:	CONDITIONAL AUTHORIZED (CA)
Facility Status:	Inactive, non-billable

EMI: Other Ascertainable Records

Year:	1987
County Code:	41
Air Basin:	SF

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Facility ID:	3742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1990
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1995
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	1997
County Code:	41
Air Basin:	SF
Facility ID:	3742
Air District Name:	BA
SIC Code:	3471
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2001
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2003
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2004
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.099
Reactive Organic Gases Tons/Yr:	0.0987096
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2005
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	.099
Reactive Organic Gases Tons/Yr:	.0987096
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Year:	2006
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	.214
Reactive Organic Gases Tons/Yr:	.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2007
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	.214
Reactive Organic Gases Tons/Yr:	.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2008
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Total Organic Hydrocarbon Gases Tons/Yr:	.214
Reactive Organic Gases Tons/Yr:	.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2009
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.214
Reactive Organic Gases Tons/Yr:	0.2130804
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2010
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.32100000000000001
Reactive Organic Gases Tons/Yr:	0.31865260000000001
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2011
County Code:	41
Air Basin:	SF

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321
Reactive Organic Gases Tons/Yr:	0.3186526
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2012
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321
Reactive Organic Gases Tons/Yr:	0.3186526
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2013
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321
Reactive Organic Gases Tons/Yr:	0.3186526
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2014
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.321986389
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2015
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.350017976
Reactive Organic Gases Tons/Yr:	0.239543653
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2016
County Code:	41
Air Basin:	SF
Facility ID:	11742
Air District Name:	BA
SIC Code:	3499
Air District Name:	BAY AREA AQMD

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.350017999
Reactive Organic Gases Tons/Yr:	0.2375363504
Carbon Monoxide Emissions Tons/Yr:	Not Reported
NOX - Oxides of Nitrogen Tons/Yr:	Not Reported
SOX - Oxides of Sulphur Tons/Yr:	Not Reported
Particulate Matter Tons/Yr:	Not Reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not Reported

NPDES: Other Ascertainable Records

Facility Status:	Active
NPDES Number:	CAS000001
Region:	2
Agency Number:	0
Regulatory Measure ID:	182879
Place ID:	Not Reported
Order Number:	97-03-DWQ
WDID:	2 41I005327
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	04/10/1992
Termination Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Discharge Address:	990 Obrien Dr
Discharge Name:	Jose Sandoval
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Status:	Not Reported
Status Date:	Not Reported
Operator Name:	Not Reported
Operator Address:	Not Reported
Operator City:	Not Reported
Operator State:	Not Reported
Operator Zip:	Not Reported

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	182879

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not Reported
WDID:	2 41I005327
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	04/10/1992
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	Not Reported
Discharge Name:	Jose Sandoval
Discharge Address:	990 Obrien Dr
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not Reported
Processed Date:	Not Reported
Status:	Not Reported
Status Date:	Not Reported
Place Size:	Not Reported
Place Size Unit:	Not Reported
Contact:	Not Reported
Contact Title:	Not Reported
Contact Phone:	Not Reported
Contact Phone Ext:	Not Reported
Contact Email:	Not Reported
Operator Name:	Not Reported
Operator Address:	Not Reported
Operator City:	Not Reported
Operator State:	Not Reported
Operator Zip:	Not Reported
Operator Contact:	Not Reported
Operator Contact Title:	Not Reported
Operator Contact Phone:	Not Reported
Operator Contact Phone Ext:	Not Reported
Operator Contact Email:	Not Reported
Operator Type:	Not Reported
Developer:	Not Reported
Developer Address:	Not Reported
Developer City:	Not Reported
Developer State:	Not Reported
Developer Zip:	Not Reported
Developer Contact:	Not Reported
Developer Contact Title:	Not Reported
Constype Linear Utility Ind:	Not Reported
Emergency Phone:	Not Reported
Emergency Phone Ext:	Not Reported
Constype Above Ground Ind:	Not Reported

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Constype Below Ground Ind:	Not Reported
Constype Cable Line Ind:	Not Reported
Constype Comm Line Ind:	Not Reported
Constype Commertial Ind:	Not Reported
Constype Electrical Line Ind:	Not Reported
Constype Gas Line Ind:	Not Reported
Constype Industrial Ind:	Not Reported
Constype Other Description:	Not Reported
Constype Other Ind:	Not Reported
Constype Recons Ind:	Not Reported
Constype Residential Ind:	Not Reported
Constype Transport Ind:	Not Reported
Constype Utility Description:	Not Reported
Constype Utility Ind:	Not Reported
Constype Water Sewer Ind:	Not Reported
Dir Discharge Uswater Ind:	Not Reported
Receiving Water Name:	Not Reported
Certifier:	Not Reported
Certifier Title:	Not Reported
Certification Date:	Not Reported
Primary Sic:	Not Reported
Secondary Sic:	Not Reported
Tertiary Sic:	Not Reported
NPDES Number:	Not Reported
Status:	Not Reported
Agency Number:	Not Reported
Region:	2
Regulatory Measure ID:	182879
Order Number:	Not Reported
Regulatory Measure Type:	Industrial
Place ID:	Not Reported
WDID:	2 41I005327
Program Type:	Not Reported
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	Not Reported
Discharge Name:	Not Reported
Discharge Address:	Not Reported
Discharge City:	Not Reported
Discharge State:	Not Reported
Discharge Zip:	Not Reported
Received Date:	05/09/2008
Processed Date:	04/10/1992
Status:	Active
Status Date:	04/10/1992
Place Size:	29900

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Place Size Unit:	SqFt
Contact:	Jose Sandoval
Contact Title:	Not Reported
Contact Phone:	650-327-5172
Contact Phone Ext:	Not Reported
Contact Email:	sanfordmetal@aol.com
Operator Name:	Jose Sandoval
Operator Address:	990 Obrien Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	JOSE Sandoval
Operator Contact Title:	President
Operator Contact Phone:	650-327-5172
Operator Contact Phone Ext:	Not Reported
Operator Contact Email:	sanfordmetal@aol.com
Operator Type:	Private Business
Developer:	Not Reported
Developer Address:	Not Reported
Developer City:	Not Reported
Developer State:	California
Developer Zip:	Not Reported
Developer Contact:	Not Reported
Developer Contact Title:	Not Reported
Constype Linear Utility Ind:	Not Reported
Emergency Phone:	650-521-3131
Emergency Phone Ext:	Not Reported
Constype Above Ground Ind:	Not Reported
Constype Below Ground Ind:	Not Reported
Constype Cable Line Ind:	Not Reported
Constype Comm Line Ind:	Not Reported
Constype Commertial Ind:	Not Reported
Constype Electrical Line Ind:	Not Reported
Constype Gas Line Ind:	Not Reported
Constype Industrial Ind:	Not Reported
Constype Other Description:	Not Reported
Constype Other Ind:	Not Reported
Constype Recons Ind:	Not Reported
Constype Residential Ind:	Not Reported
Constype Transport Ind:	Not Reported
Constype Utility Description:	Not Reported
Constype Utility Ind:	Not Reported
Constype Water Sewer Ind:	Not Reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	Luis Alcaraz
Certifier Title:	Office Manager
Certification Date:	13-FEB-15
Primary Sic:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
Secondary Sic:	Not Reported

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Tertiary Sic:	Not Reported
Facility Status:	Not Reported
NPDES Number:	Not Reported
Region:	Not Reported
Agency Number:	Not Reported
Regulatory Measure ID:	Not Reported
Place ID:	Not Reported
Order Number:	Not Reported
WDID:	2 41I005327
Regulatory Measure Type:	Industrial
Program Type:	Not Reported
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Discharge Address:	Not Reported
Discharge Name:	Not Reported
Discharge City:	Not Reported
Discharge State:	Not Reported
Discharge Zip:	Not Reported
Status:	Active
Status Date:	04/10/1992
Operator Name:	Jose Sandoval
Operator Address:	990 Obrien Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025

NPDES as of 03/2018:

NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	182879
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not Reported
WDID:	2 41I005327
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	04/10/1992
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	Not Reported
Discharge Name:	Jose Sandoval

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Discharge Address:	990 Obrien Dr
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not Reported
Processed Date:	Not Reported
Status:	Not Reported
Status Date:	Not Reported
Place Size:	Not Reported
Place Size Unit:	Not Reported
Contact:	Not Reported
Contact Title:	Not Reported
Contact Phone:	Not Reported
Contact Phone Ext:	Not Reported
Contact Email:	Not Reported
Operator Name:	Not Reported
Operator Address:	Not Reported
Operator City:	Not Reported
Operator State:	Not Reported
Operator Zip:	Not Reported
Operator Contact:	Not Reported
Operator Contact Title:	Not Reported
Operator Contact Phone:	Not Reported
Operator Contact Phone Ext:	Not Reported
Operator Contact Email:	Not Reported
Operator Type:	Not Reported
Developer:	Not Reported
Developer Address:	Not Reported
Developer City:	Not Reported
Developer State:	Not Reported
Developer Zip:	Not Reported
Developer Contact:	Not Reported
Developer Contact Title:	Not Reported
Constype Linear Utility Ind:	Not Reported
Emergency Phone:	Not Reported
Emergency Phone Ext:	Not Reported
Constype Above Ground Ind:	Not Reported
Constype Below Ground Ind:	Not Reported
Constype Cable Line Ind:	Not Reported
Constype Comm Line Ind:	Not Reported
Constype Commertial Ind:	Not Reported
Constype Electrical Line Ind:	Not Reported
Constype Gas Line Ind:	Not Reported
Constype Industrial Ind:	Not Reported
Constype Other Description:	Not Reported
Constype Other Ind:	Not Reported
Constype Recons Ind:	Not Reported
Constype Residential Ind:	Not Reported
Constype Transport Ind:	Not Reported
Constype Utility Description:	Not Reported

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Constype Utility Ind:	Not Reported
Constype Water Sewer Ind:	Not Reported
Dir Discharge Uswater Ind:	Not Reported
Receiving Water Name:	Not Reported
Certifier:	Not Reported
Certifier Title:	Not Reported
Certification Date:	Not Reported
Primary Sic:	Not Reported
Secondary Sic:	Not Reported
Tertiary Sic:	Not Reported
NPDES Number:	Not Reported
Status:	Not Reported
Agency Number:	Not Reported
Region:	2
Regulatory Measure ID:	182879
Order Number:	Not Reported
Regulatory Measure Type:	Industrial
Place ID:	Not Reported
WDID:	2 41I005327
Program Type:	Not Reported
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	Not Reported
Discharge Name:	Not Reported
Discharge Address:	Not Reported
Discharge City:	Not Reported
Discharge State:	Not Reported
Discharge Zip:	Not Reported
Received Date:	05/09/2008
Processed Date:	04/10/1992
Status:	Active
Status Date:	04/10/1992
Place Size:	29900
Place Size Unit:	SqFt
Contact:	Jose Sandoval
Contact Title:	Not Reported
Contact Phone:	650-327-5172
Contact Phone Ext:	Not Reported
Contact Email:	sanfordmetal@aol.com
Operator Name:	Jose Sandoval
Operator Address:	990 Obrien Dr
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	JOSE Sandoval
Operator Contact Title:	President

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Operator Contact Phone:	650-327-5172
Operator Contact Phone Ext:	Not Reported
Operator Contact Email:	sanfordmetal@aol.com
Operator Type:	Private Business
Developer:	Not Reported
Developer Address:	Not Reported
Developer City:	Not Reported
Developer State:	California
Developer Zip:	Not Reported
Developer Contact:	Not Reported
Developer Contact Title:	Not Reported
Constype Linear Utility Ind:	Not Reported
Emergency Phone:	650-521-3131
Emergency Phone Ext:	Not Reported
Constype Above Ground Ind:	Not Reported
Constype Below Ground Ind:	Not Reported
Constype Cable Line Ind:	Not Reported
Constype Comm Line Ind:	Not Reported
Constype Commertial Ind:	Not Reported
Constype Electrical Line Ind:	Not Reported
Constype Gas Line Ind:	Not Reported
Constype Industrial Ind:	Not Reported
Constype Other Description:	Not Reported
Constype Other Ind:	Not Reported
Constype Recons Ind:	Not Reported
Constype Residential Ind:	Not Reported
Constype Transport Ind:	Not Reported
Constype Utility Description:	Not Reported
Constype Utility Ind:	Not Reported
Constype Water Sewer Ind:	Not Reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisco Bay
Certifier:	Luis Alcaraz
Certifier Title:	Office Manager
Certification Date:	13-FEB-15
Primary Sic:	3471-Electroplating, Plating, Polishing, Anodizing, and Coloring
Secondary Sic:	Not Reported
Tertiary Sic:	Not Reported

WDS: Other Ascertainable Records

Facility ID:	San Francisco Bay 41I005327
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	2
Facility Telephone:	4153275172

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Facility Contact:	JOSE SANDOVAL
Agency Name:	SANFORD METAL PROCESSING CO
Agency Address:	990 Obrien Dr
Agency City,St,Zip:	Menlo Park 940251407
Agency Contact:	JOSE SANDOVAL
Agency Telephone:	4153275172
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not Reported
Primary Waste Type:	Not Reported
Primary Waste:	Not Reported
Waste Type2:	Not Reported
Waste2:	Not Reported
Primary Waste Type:	Not Reported
Secondary Waste:	Not Reported
Secondary Waste Type:	Not Reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not Reported
POTW:	Not Reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS: Other Ascertainable Records

Agency:	Jose Sandoval
Agency Address:	990 Obrien Dr, Menlo Park, CA 94025
Place/Project Type:	Industrial - Electroplating, Plating, Polishing, Anodizing, and Coloring
SIC/NAICS:	3471
Region:	2
Program:	INDSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	2 41I005327
NPDES Number:	CAS000001
Adoption Date:	Not Reported
Effective Date:	04/10/1992
Termination Date:	Not Reported
Expiration/Review Date:	Not Reported
Design Flow:	Not Reported
Major/Minor:	Not Reported
Complexity:	Not Reported
TTWQ:	Not Reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Latitude:	37.47491
Longitude:	-122.15104

CERS TANKS: Other Ascertainable Records

Site ID:	401399
CERS ID:	10066081
Site Name:	SANFORD METAL PROCESSING CO
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.32 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.32
Violation Description:	Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/06/2017. Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (lliquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Returned to compliance on 04/06/2017. Several rinse water (Z-1) and bath tanks (Z-3) were observed to be bulging and deteriorated. Please replace these tanks and provide confirmation to the inspector within the next 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Leaks in roof of rear chemical stg bins have allowed entry of rain water. In corrosives bin, contaminated runoff from open or improperly closed containers was observed on the floor. Clean bin floors, dispose of waste/cleaned up materials as hazardous waste and repair storage bin roofs to prevent leaks. Provide confirmation (photos and manifests) to inspector within 30 days. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	Returned to compliance on 04/06/2017. 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were open. Please close all containers of hazardous waste unless adding waste; submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes:	Returned to compliance on 06/08/2017. Observations of the hazardous waste storage issues (incorrect accumulation start date on acetone waste drum, unlabeled and open hazardous waste containers, etc.) indicate that weekly inspections are not occurring. Weekly inspections of hazardous waste storage areas are required. Begin these inspection immediately and provide records in the inspector after 30 days have passed.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (liquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 06/08/2017. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills at the end of every day and clean up these small spills within 48 hours. The system should also schedule regular cleanup of the non-RCRA hazardous waste solids (precipitate near the caustic tanks or "other organic solids"), and non-RCRA regulated solid, known as "floor sweep" or "other inorganic solids." Please develop and train your staff on a written procedure for cleanup of [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Returned to compliance on 04/12/2017. Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 06/08/2017.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 02/26/2015. Eyewash not maintained
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Observed 5-gallon containers of hazardous waste sludge and precipitate intended for the hazardous waste super-sac (tri-wall box). Prior to disposal in super-sac these hazardous waste containers must be properly labeled and closed. Train staff to either label and close these HW containers or dispose immediately in the super-sac. Provide evidence of this training within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description:	Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Date:	02-24-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Started inspection, to be completed in 2 days
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-10-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-09-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Research and letter draft for PBR closure
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval General Type:	Other/Unknown
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	03-16-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Water analysis review for TP decision
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-12-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw/eval/dwnload compli photos email
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-20-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	09-21-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	01-07-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	says map/plans provided to reg - current?
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-28-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-07-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-13-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Once volumes of potential CalARP chemicals are correct, the facility will be evaluated for CalARP requirements.

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewing compliance submittals
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	A few items missing from inventory and map - muriatic acid near D-2, Manganese phosphate, HW in large tank (see HW inspection regarding the HW tank).
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-03-2017
Violations Found:	No

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw past vios; fill gaps; consult LM
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-21-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Observed disassembled evaporator and discussed documention
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-19-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	extend deadline
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-04-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw CUPA and St online history
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-24-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HW
Enf Action Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-25-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Coordinates:

Site ID:	401399
Facility Name:	SANFORD METAL PROCESSING CO
Env Int Type Code:	SMSWIND
Program ID:	255539
Coord Name:	Not Reported
Ref Point Type Desc:	Unknown
Latitude:	37.474910
Longitude:	-122.151040

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Jose A. Sandoval
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 492-0982
Affiliation Type Desc:	Parent Corporation
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Document Preparer

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Entity Name:	Luis A. Alcaraz
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Jose A. Sandoval
Entity Title:	Not Reported
Affiliation Address:	990 Obrien Drive
Affiliation City:	Menlo park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Owner/Operator
Entity Name:	Jose Sandoval
Entity Title:	Operator
Affiliation Address:	990 Obrien Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	990 O'BRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Luis A. Alcaraz
Entity Title:	Office Manager

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not Reported
Affiliation Address:	990 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 327-5172
Site ID:	492322
CERS ID:	110000831459
Site Name:	SANFORD METAL PROCESSING INC.
CERS Description:	US EPA Air Emission Inventory System (EIS)

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	Jose Sandoval
Entity Title:	Not Reported
Affiliation Address:	990 O BRIEN DRIVE
Affiliation City:	MENLOPK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Public Contact
Entity Name:	ED DUNNE/FRANK UNQUERA
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Site ID:	401399
CERS ID:	255539
Site Name:	SANFORD METAL PROCESSING CO
CERS Description:	Industrial Facility Storm Water

Violations:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Date:	02-24-2015
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.32 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.32
Violation Description:	Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/06/2017. Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (lliquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Date:	03-07-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	Returned to compliance on 04/06/2017. Several rinse water (Z-1) and bath tanks (Z-3) were observed to be bulging and deteriorated. Please replace these tanks and provide confirmation to the inspector within the next 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Leaks in roof of rear chemical stg bins have allowed entry of rain water. In corrosives bin, contaminated runoff from open or improperly closed containers was observed on the floor. Clean bin floors, dispose of waste/cleaned up materials as hazardous waste and repair storage bin roofs to prevent leaks. Provide confirmation (photos and manifests) to inspector within 30 days. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	Returned to compliance on 04/06/2017. 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were open. Please close all containers of hazardous waste unless adding waste; submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes:	Returned to compliance on 06/08/2017. Observations of the hazardous waste storage issues (incorrect accumulation start date on acetone waste drum, unlabeled and open hazardous waste containers, etc.) indicate that weekly inspections are not occurring. Weekly inspections of hazardous waste storage areas are required. Begin these inspection immediately and provide records in the inspector after 30 days have passed.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Acetone waste container in storage bin in rear of facility without legible accumulation start date. Please determine the correct date and provide information to inspector by March 10. In addition, 5-gallon containers of tank sludge (2) and caustic tank precipitate (1) were unlabeled. Please label all containers of hazardous waste with the words hazardous waste, accumulation start date, contact information, phase (liquid or solid), hazardous property, and contents and submit confirmation to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 06/08/2017. Sanford currently addresses spills (including from drag-out) by immediately cleaning up larger spills with absorbent and by allowing smaller spills to evaporate or by cleaning them up by the end of the week. A week is not a reasonable time to allow spills to accumulate and evaporation is not an acceptable means of removing spills. Spill cleanup delay can lead to release to the environment if the berm has a leak or breach. Develop a system for addressing spills. Large spills should be cleaned up immediately as is currently the case. San Mateo recommends that staff inspect the facility for small spills at the end of every day and clean up these small spills within 48 hours. The system should also schedule regular cleanup of the non-RCRA hazardous waste solids (precipitate near the caustic tanks or "other organic solids"), and non-RCRA regulated solid, known as "floor sweep" or "other inorganic solids." Please develop and train your staff on a written procedure for cleanup of [Truncated]
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Returned to compliance on 04/12/2017. Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description:	Failure to separate incompatible wastes from the same container, nearby containers, or unwashed containers which previously contained incompatible waste or materials.
Violation Notes:	Chromic acid rinse was observed stored in the corrosives (bases) bin. Please sort all chemicals stored in all bins in the rear of the facility and store compatibly. Confirm with inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-07-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Returned to compliance on 06/08/2017.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description:	Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 02/26/2015. Eyewash not maintained
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violation Date:	03-07-2017
Citation:	40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description:	Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes:	According to Jose Alcarez, the hazardous waste tank currently holding waste rinse water will be decommissioned and the waste water will be stored in closed and labeled drums. If the storage threshold for this hazardous waste (6 months) has been exceeded, dispose of the waste within 2 weeks. Otherwise provide evidence of the duration of storage, and photos demonstrating proper storage and labeling within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	03-01-2017
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes:	Observed 5-gallon containers of hazardous waste sludge and precipitate intended for the hazardous waste super-sac (tri-wall box). Prior to disposal in super-sac these hazardous waste containers must be properly labeled and closed. Train staff to either label and close these HW containers or dispose immediately in the super-sac. Provide evidence of this training within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Violation Date:	02-24-2015
Citation:	22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description:	Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes:	Returned to compliance on 02/26/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Started inspection, to be completed in 2 days
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-10-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-09-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Research and letter draft for PBR closure
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-16-2015
Violations Found:	No

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Type:	Other, not routine, done by local agency
Eval Notes:	Water analysis review for TP decision
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-12-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw/eval/dwnload compli photos email
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-20-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-21-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-07-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	says map/plans provided to reg - current?
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-28-2017

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-07-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-13-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Once volumes of potential CalARP chemicals are correct, the facility will be evaluated for CalARP requirements.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-08-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Reviewing compliance submittals
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-23-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	02-24-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	A few items missing from inventory and map - muriatic acid near D-2, Manganese phosphate, HW in large tank (see HW inspection regarding the HW tank).
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	03-03-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw past vios; fill gaps; consult LM
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	04-21-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Observed disassembled evaporator and discussed documention
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-19-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	extend deadline
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-04-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw CUPA and St online history
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-24-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HW
Enf Action Source:	CERS
Site ID:	401399
Site Name:	SANFORD METAL PROCESSING CO
Site Address:	990 OBRIEN DR
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	02-25-2015
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Coordinates:

Site ID:	401399
Facility Name:	SANFORD METAL PROCESSING CO
Env Int Type Code:	SMSWIND
Program ID:	255539
Coord Name:	Not Reported
Ref Point Type Desc:	Unknown
Latitude:	37.474910
Longitude:	-122.151040

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Jose A. Sandoval
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 492-0982
Affiliation Type Desc:	Parent Corporation
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Luis A. Alcaraz
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Jose A. Sandoval
Entity Title:	Not Reported
Affiliation Address:	990 Obrien Drive

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Affiliation City:	Menlo park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Owner/Operator
Entity Name:	Jose Sandoval
Entity Title:	Operator
Affiliation Address:	990 Obrien Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	990 O'BRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Luis A. Alcaraz
Entity Title:	Office Manager
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	SANFORD METAL PROCESSING CO
Entity Title:	Not Reported
Affiliation Address:	990 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA

SANFORD METAL PROCESSING CO, 990 O'BRIEN DRIVE, MENLO PARK, CA 94025 (Continued)

Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 327-5172

ELECTRO MOTION INC 1001 OBRIEN DR, MENLO PARK, CA, 94025		S121739517	
▲ I13	SSE 1/10 - 1/3	(699 ft. / 0.132 mi.)	Local Lists of Hazardous waste / Contaminated Sites Other Ascertainable Records
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID:	114200
CERS ID:	10615870
CERS Description:	Hazardous Waste Generator

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Facility generates used oil (avg 200 gal/month), waste coolant (avg 100gal/month), oil filters (avg 50-100 pounds/month combined), and batteries (5-10 cores/month). Adjust inspection date to May or June.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-21-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-14-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-20-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	114200
Facility Name:	ELECTRO MOTION INC
Env Int Type Code:	HWG
Program ID:	10615870
Coord Name:	Not Reported
Ref Point Type Desc:	Entrance point of a facility or station
Latitude:	37.475251
Longitude:	-122.151080

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	LISA MISKINIS
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	1001 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Property Owner
Entity Name:	Balco Properties, Ltd., LLC
Entity Title:	Not Reported
Affiliation Address:	1624 FRANKLIN STREET SUITE 1115
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94612
Affiliation Phone:	(510) 763-2911
Affiliation Type Desc:	Environmental Contact
Entity Name:	LYLE HUGHES
Entity Title:	Not Reported
Affiliation Address:	1001 O'Brien Dr.
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation Type Desc:	Identification Signer
Entity Name:	LISA MISKINIS
Entity Title:	CONTROLLER
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

Affiliation Type Desc:	Operator
Entity Name:	ELECTRO-MOTION, INC.
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 321-6169

Affiliation Type Desc:	Legal Owner
Entity Name:	PHELPS, DAN
Entity Title:	Not Reported
Affiliation Address:	1001 OBRIEN
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 321-6169

Affiliation Type Desc:	Parent Corporation
Entity Name:	ELECTRO MOTION, INC.
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

CERS TANKS: Other Ascertainable Records

Site ID:	114200
CERS ID:	10615870
Site Name:	ELECTRO MOTION INC
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2017
Violations Found:	No

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Eval Type:	Routine done by local agency
Eval Notes:	Facility generates used oil (avg 200 gal/month), waste coolant (avg 100gal/month), oil filters (avg 50-100 pounds/month combined), and batteries (5-10 cores/month). Adjust inspection date to May or June.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-21-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-14-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Eval Date:	03-20-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Coordinates:

Site ID:	114200
Facility Name:	ELECTRO MOTION INC
Env Int Type Code:	HWG
Program ID:	10615870
Coord Name:	Not Reported
Ref Point Type Desc:	Entrance point of a facility or station
Latitude:	37.475251
Longitude:	-122.151080

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	LISA MISKINIS
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Entity Title:	Not Reported
Affiliation Address:	1001 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Property Owner
Entity Name:	Balco Properties, Ltd., LLC
Entity Title:	Not Reported
Affiliation Address:	1624 FRANKLIN STREET SUITE 1115
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94612
Affiliation Phone:	(510) 763-2911
Affiliation Type Desc:	Environmental Contact
Entity Name:	LYLE HUGHES
Entity Title:	Not Reported
Affiliation Address:	1001 O'Brien Dr.
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	LISA MISKINIS
Entity Title:	CONTROLLER
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Operator
Entity Name:	ELECTRO-MOTION, INC.
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 321-6169
Affiliation Type Desc:	Legal Owner
Entity Name:	PHELPS, DAN
Entity Title:	Not Reported
Affiliation Address:	1001 OBRIEN

ELECTRO MOTION INC, 1001 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 321-6169
Affiliation Type Desc:	Parent Corporation
Entity Name:	ELECTRO MOTION, INC.
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

NOREN PRODUCTS INC 1010 OBRIEN DR, MENLO PARK, CA, 940250000		S113011437	
▲ G14	SSE 1/10 - 1/3	(759 ft. / 0.144 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	3 ft. Higher Elevation	13 ft. Above Sea Level	

Worksheet:

HAZNET: Other Ascertainable Records

Site Name:	NOREN PRODUCTS INC
Year:	2014
GEPAID:	CAD981985765
Contact:	MIKE TATE
Telephone:	6504444689
Mailing Name:	Not Reported
Mailing Address:	1010 OBRIEN DR
Mailing City,St,Zip:	MENLO PARK, CA 940251409
Gen County:	San Mateo
TSD EPA ID:	ARD981057870
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.198
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	NOREN PRODUCTS INC
Year:	2009
GEPAID:	CAD981985765
Contact:	MIKE TATE
Telephone:	6504444689
Mailing Name:	Not Reported

NOREN PRODUCTS INC, 1010 OBRIEN DR, MENLO PARK, CA 940250000 (Continued)

Mailing Address:	1010 OBRIEN DR
Mailing City,St,Zip:	MENLO PARK, CA 940251409
Gen County:	Not Reported
TSD EPA ID:	CAD059494310
TSD County:	Not Reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.072
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	NOREN PRODUCTS INC
Year:	2009
GEPAID:	CAD981985765
Contact:	MIKE TATE
Telephone:	6504444689
Mailing Name:	Not Reported
Mailing Address:	1010 OBRIEN DR
Mailing City,St,Zip:	MENLO PARK, CA 940251409
Gen County:	Not Reported
TSD EPA ID:	UTD981552177
TSD County:	Not Reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.085
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	NOREN PRODUCTS INC
Year:	2009
GEPAID:	CAD981985765
Contact:	MIKE TATE
Telephone:	6504444689
Mailing Name:	Not Reported
Mailing Address:	1010 OBRIEN DR
Mailing City,St,Zip:	MENLO PARK, CA 940251409
Gen County:	Not Reported
TSD EPA ID:	CAD982444481
TSD County:	Not Reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Other Treatment
Tons:	0.4
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo
Site Name:	NOREN PRODUCTS INC
Year:	2006
GEPAID:	CAD981985765

NOREN PRODUCTS INC, 1010 OBRIEN DR, MENLO PARK, CA 940250000 (Continued)

Contact:	KIMBERLEY DAWN, C.E.O.
Telephone:	6503229500
Mailing Name:	Not Reported
Mailing Address:	1010 OBRIEN DR
Mailing City,St,Zip:	MENLO PARK, CA 940251409
Gen County:	Not Reported
TSD EPA ID:	CAD009452657
TSD County:	Not Reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Recycler
Tons:	0.22
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	San Mateo

The Click here to access 6 additional CA_HAZNET: record(s) in the EDR Site Report. database contains http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=4lL4Y7lGULQJ2aLYGp7TS9k7GN.U.q4oXQdbJ7S2QGawFLJL3fBGkLpa79JLTR.SJB7RLkg57wA9gFNaB.h47qs.7uqPS4NIlLZL5u2ssYam7jK82GGksUVB22gQqwJLs72PaTlLSu3ZxG80pwV89WTxvSaF3uEkbv7I0BmiNK7.5v4qElMtLin3odYRt7Fg278GTsUYO7pfQybJb48kdaFkLz87P5GfmpzZ6tDTzRSrl44Akb8726A66NyD.U38W0.4uqo21H.oEpXBn4vkdHObAguxx7Y9SBO4iNlMPLQm3XlYIA7YM24ZGU9UNZU.YQOsJnL3WgadCLuT3epGILpPs59STFUSHl2nSkG77zY36BNcY.Ei3Hd.5lqea6yGoOWX2b5aYdOcbo99Cg75PSJ82 additional records for this site. Please contact your EDR Account Executive for more information.

NOREN PRODUCTS
1010 O'BRIEN DRIVE, MENLO PARK, CA, S121308068

▲ G15	SSE 1/10 - 1/3	(759 ft. / 0.144 mi.)	State and tribal leaking storage tank lists
	3 ft. Higher Elevation	13 ft. Above Sea Level	

Worksheet:

CPS-SLIC: State and tribal leaking storage tank lists

Site Name:	NOREN PRODUCTS
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	09/19/2018
Global Id:	T10000010914
Lead Agency:	SAN MATEO COUNTY LOP
Lead Agency Case Number:	449098
Latitude:	37.47461
Longitude:	-122.15145
Case Type:	Cleanup Program Site
Case Worker:	BG
Local Agency:	SAN MATEO COUNTY LOP
RB Case Number:	Not Reported
File Location:	Not Reported
Potential Media Affected:	Soil Vapor, Under Investigation
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	Not Reported
Click here to access the California GeoTracker records for this facility:	http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_SLIC_ST&global_id=T10000010914

MAP FINDINGS

A & B PROPERTY CORP 990 HAMILTON, MENLO PARK, CA, 940250000			S112914825
▲ 16	ESE 1/10 - 1/3	(793 ft. / 0.15 mi.)	Local Lists of Hazardous waste / Contaminated Sites Other Ascertainable Records
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID:	519694
CERS ID:	10766353
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	519694
Site Name:	FACEBOOK MPK59
Violation Date:	08-31-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 11/30/2018. On-boarding training does not provide training in spill response. Please complete the remaining quarter (roughly 4000 employees) of staff training within 90 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	08-17-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-31-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Facebook
Entity Title:	Not Reported
Affiliation Address:	Not Reported

A & B PROPERTY CORP, 990 HAMILTON, MENLO PARK, CA 940250000 (Continued)

Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 681-7904
Affiliation Type Desc:	Document Preparer
Entity Name:	Karen Sieverson
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Karen Sieverson
Entity Title:	EHS Manager, MPK
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Facebook
Entity Title:	Not Reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 543-4800
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA

A & B PROPERTY CORP, 990 HAMILTON, MENLO PARK, CA 940250000 (Continued)

Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Sam Nordberg
Entity Title:	Not Reported
Affiliation Address:	1 Hacker Way Attn: Sam Nordberg
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	FACEBOOK MPK59
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

HAZNET: Other Ascertainable Records

Site Name:	INVISAGE TECHNOLOGIES INC
Year:	2017
GEPAID:	CAR000235911
Contact:	DAVID JONES
Telephone:	4089869000
Mailing Name:	Not Reported
Mailing Address:	990 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Laboratory waste chemicals
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.005
Cat Decode:	Laboratory waste chemicals
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Site Name:	INVISAGE TECHNOLOGIES INC
Year:	2017
GEPAID:	CAR000235911
Contact:	DAVID JONES
Telephone:	4089869000
Mailing Name:	Not Reported
Mailing Address:	990 HAMILTON AVE

A & B PROPERTY CORP, 990 HAMILTON, MENLO PARK, CA 940250000 (Continued)

Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3025
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Site Name:	INVISAGE TECHNOLOGIES INC
Year:	2017
GEPAID:	CAR000235911
Contact:	DAVID JONES
Telephone:	4089869000
Mailing Name:	Not Reported
Mailing Address:	990 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAT080014079
TSD County:	Contra Costa
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0455
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Site Name:	INVISAGE TECHNOLOGIES INC
Year:	2017
GEPAID:	CAR000235911
Contact:	DAVID JONES
Telephone:	4089869000
Mailing Name:	Not Reported
Mailing Address:	990 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Unspecified solvent mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0425
Cat Decode:	Unspecified solvent mixture
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Site Name:	INVISAGE TECHNOLOGIES INC
Year:	2017
GEPAID:	CAR000235911
Contact:	DAVID JONES

A & B PROPERTY CORP, 990 HAMILTON, MENLO PARK, CA 940250000 (Continued)

Telephone:	4089869000
Mailing Name:	Not Reported
Mailing Address:	990 HAMILTON AVE
Mailing City,St,Zip:	MENLO PARK, CA 940250000
Gen County:	San Mateo
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.2
Cat Decode:	Other inorganic solid waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo

The Click here to access 44 additional CA_HAZNET: record(s) in the EDR Site Report. database contains http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=4tM4K.tXpMCH2rRKO3.c69MEXv5pVC4y6CtmHSj22urikRx03PdOBl3UQ9xycF46aO7SFMABEb69movF45577VtVHBCMa45dtJFMMB2riKwk.U78tVXFCp.U2GmCddH7f73vrN6R.J3GjOL433Y804cBU6nm3BvMZ6ECIBWJv9B5qB4JGtKqMGZ3lvKYS.Vm2DLXRcpPi7RBCe9HQF8uercwR7p7XFOQQ38Y6X0c2x6H94YIMtLEmkAoVvwB5jz8gkVmTCs81d9yyP6vp4vKt52mN8umNSGAjuh4DCt0AMeY3RTKbF.ch2djXmUplZU8uCTuHzd3iyrIORY.37VOwW3Zh4fccKZ6OBBbrM0eEEb3cPvGD5jg6MFV2pCu5A7zy3B6a34nEtKhm9h7HFSjGjol2 additional records for this site. Please contact your EDR Account Executive for more information.

CERS TANKS: Other Ascertainable Records

Site ID:	519694
CERS ID:	10766353
Site Name:	FACEBOOK MPK59
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	519694
Site Name:	FACEBOOK MPK59
Violation Date:	08-31-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 11/30/2018. On-boarding training does not provide training in spill response. Please complete the remaining quarter (roughly 4000 employees) of staff training within 90 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	08-17-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-31-2018

A & B PROPERTY CORP, 990 HAMILTON, MENLO PARK, CA 940250000 (Continued)

Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Facebook
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 681-7904
Affiliation Type Desc:	Document Preparer
Entity Name:	Karen Sieverson
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Karen Sieverson
Entity Title:	EHS Manager, MPK
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Facebook
Entity Title:	Not Reported

A & B PROPERTY CORP, 990 HAMILTON, MENLO PARK, CA 940250000 (Continued)

Affiliation Address:	1 Hacker Way Attn: Karen Sieverson
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 543-4800
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Sam Nordberg
Entity Title:	Not Reported
Affiliation Address:	1 Hacker Way Attn: Sam Nordberg
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	FACEBOOK MPK59
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

AVALANCHE BIOTECHNOLGIES INC 1035 OBRIEN DR, MENLO PARK, CA, 94025		S121768578	
▲ I17	SSE 1/10 - 1/3	(844 ft. / 0.16 mi.)	Local Lists of Hazardous waste / Contaminated Sites Other Ascertainable Records
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID:	369454
CERS ID:	10508254
CERS Description:	Hazardous Waste Generator

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Violations:

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-18-2015
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain and/or maintain an Active EPA ID.
Violation Notes:	Returned to compliance on 09/06/2016. Your EPA number is inactive. You must have an active EPA number. Contact the DTSC and have your EPA number activated and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-18-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 01/21/2016. Waste labels must contain all of the information required. Your current waste labels are missing 2 items: state (ie. Liquid or solid) and hazardous properties (I, C, R, T). Update your labeling and provide verification of labeling compliance to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-19-2017
Citation:	HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95, Section(s) 25505.1
Violation Description:	Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.
Violation Notes:	Returned to compliance on 01/26/2018. Facility has not formally notified the landlord of the storage of hazardous materials and availability of the business plan. Within 30 days, please use the template provided by the inspector to notify your landlord and copy the inspector.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	02-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	new facility compliance review and report submittals/.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-19-2017
Violations Found:	Yes

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-10-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-30-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-20-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	new facility portal approvals
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-28-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	portal approval
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-06-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-10-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	HMBP review from old dist.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-19-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Facility is a small quantity generator. Disposal of NaOH wastewater can reach more than 800 pounds in a month. Adverum is considering a permit for a NaOH waterwater neutralization system. Other wastes include flammable liquids, some acid waste, and non-RCRA solids in much lower volumes.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Coordinates:

Site ID:	369454
Facility Name:	AVALANCHE BIOTECHNOLGIES INC
Env Int Type Code:	HWG
Program ID:	10508254
Coord Name:	Not Reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.474810
Longitude:	-122.150250

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Avalanche Biotechnologies
Entity Title:	Not Reported
Affiliation Address:	Not Reported

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 656-9356
Affiliation Type Desc:	Document Preparer
Entity Name:	Mehdi Gasmi
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mehdi Gasmi VP Pharmcuetical DEvelopment
Entity Title:	Not Reported
Affiliation Address:	1035 Obrein Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	1035 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	AVALANCHE BIOTECHNOLGIES INC
Entity Title:	Not Reported
Affiliation Address:	1035 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 656-9356
Affiliation Type Desc:	Identification Signer
Entity Name:	Mehdi Gasmi
Entity Title:	VP Pharmaceutical Dev
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	AVALANCHE BIOTECHNOLGIES INC
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

CERS TANKS: Other Ascertainable Records

Site ID:	369454
CERS ID:	10508254
Site Name:	AVALANCHE BIOTECHNOLGIES INC
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-18-2015
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain and/or maintain an Active EPA ID.
Violation Notes:	Returned to compliance on 09/06/2016. Your EPA number is inactive. You must have an active EPA number. Contact the DTSC and have your EPA number activated and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-18-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Violation Notes:	Returned to compliance on 01/21/2016. Waste labels must contain all of the information required. Your current waste labels are missing 2 items: state (ie. Liquid or solid) and hazardous properties (I, C, R, T). Update your labeling and provide verification of labeling compliance to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	369454
Site Name:	AVALANCHE BIOTECHNOLGIES INC
Violation Date:	12-19-2017
Citation:	HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95, Section(s) 25505.1
Violation Description:	Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.
Violation Notes:	Returned to compliance on 01/26/2018. Facility has not formally notified the landlord of the storage of hazardous materials and availability of the business plan. Within 30 days, please use the template provided by the inspector to notify your landlord and copy the inspector.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	02-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	new facility compliance review and report submittals/.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-19-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	06-10-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-30-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-20-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	new facility portal approvals
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-28-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	portal approval
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-06-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-10-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	HMBP review from old dist.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-18-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-19-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Facility is a small quantity generator. Disposal of NaOH wastewater can reach more than 800 pounds in a month. Adverum is considering a permit for a NaOH waterwater neutralization system. Other wastes include flammable liquids, some acid waste, and non-RCRA solids in much lower volumes.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Coordinates:

Site ID:	369454
Facility Name:	AVALANCHE BIOTECHNOLGIES INC
Env Int Type Code:	HWG
Program ID:	10508254
Coord Name:	Not Reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.474810
Longitude:	-122.150250

Affiliation:

Affiliation Type Desc:	Operator
Entity Name:	Avalanche Biotechnologies
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 656-9356
Affiliation Type Desc:	Document Preparer
Entity Name:	Mehdi Gasmi
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mehdi Gasmi VP Pharmcuetical DEvelopment
Entity Title:	Not Reported
Affiliation Address:	1035 Obrein Dr
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	1035 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	AVALANCHE BIOTECHNOLGIES INC
Entity Title:	Not Reported
Affiliation Address:	1035 OBRIEN DR
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 656-9356
Affiliation Type Desc:	Identification Signer
Entity Name:	Mehdi Gasmi
Entity Title:	VP Pharmaceutical Dev
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	AVALANCHE BIOTECHNOLGIES INC
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported

AVALANCHE BIOTECHNOLGIES INC, 1035 OBRIEN DR, MENLO PARK, CA 94025 (Continued)

Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

C S BIO CO 20 KELLY COURT, MENLO PARK, CA, 94025		S106982309
▲ K18	SE 1/10 - 1/3 (930 ft. / 0.176 mi.)	Other Ascertainable Records
	2 ft. Higher Elevation 12 ft. Above Sea Level	

Worksheet:

San Mateo Co. BI: Other Ascertainable Records

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	PERMIT BY RULE (PBR)
Record Id:	PR0070591
Description:	PERMIT BY RULE (PBR)
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	2236
Record Id:	PR0049703
Description:	GEN 251-500 TONS HAZ WASTE/YR - RCRA
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0049704
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0029292
Prog Element Code:	STORES HAZ MAT <15999GAL, 111999LB, 5599FT^3
Record Id:	PR0049702
Description:	STORES HAZ MAT <15999GAL, 111999LB, 5599CF
Facility Status:	Active, billable

NPDES: Other Ascertainable Records

Facility Status:	Not Reported
NPDES Number:	Not Reported
Region:	Not Reported
Agency Number:	Not Reported
Regulatory Measure ID:	Not Reported
Place ID:	Not Reported
Order Number:	Not Reported

C S BIO CO, 20 KELLY COURT, MENLO PARK, CA 94025 (Continued)

WDID:	2 41C368010
Regulatory Measure Type:	Construction
Program Type:	Not Reported
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Discharge Address:	Not Reported
Discharge Name:	Not Reported
Discharge City:	Not Reported
Discharge State:	Not Reported
Discharge Zip:	Not Reported
Status:	Terminated
Status Date:	09/30/2015
Operator Name:	C S Bio Co
Operator Address:	20 Kelly Court
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025

NPDES as of 03/2018:

NPDES Number:	Not Reported
Status:	Not Reported
Agency Number:	Not Reported
Region:	2
Regulatory Measure ID:	441833
Order Number:	Not Reported
Regulatory Measure Type:	Construction
Place ID:	Not Reported
WDID:	2 41C368010
Program Type:	Not Reported
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	08/28/2015
Discharge Name:	Not Reported
Discharge Address:	Not Reported
Discharge City:	Not Reported
Discharge State:	Not Reported
Discharge Zip:	Not Reported
Received Date:	10/14/2013
Processed Date:	10/17/2013
Status:	Terminated
Status Date:	09/30/2015
Place Size:	2.29

C S BIO CO, 20 KELLY COURT, MENLO PARK, CA 94025 (Continued)

Place Size Unit:	Acres
Contact:	Jason Chang
Contact Title:	Not Reported
Contact Phone:	650-322-1111
Contact Phone Ext:	Not Reported
Contact Email:	zoe.liang@csbio.com
Operator Name:	C S Bio Co
Operator Address:	20 Kelly Court
Operator City:	Menlo Park
Operator State:	California
Operator Zip:	94025
Operator Contact:	Jason Chang
Operator Contact Title:	Not Reported
Operator Contact Phone:	650-322-1111
Operator Contact Phone Ext:	Not Reported
Operator Contact Email:	zoe.liang@csbio.com
Operator Type:	Private Business
Developer:	C S Bio Co
Developer Address:	20 Kelly Court
Developer City:	Menlo Park
Developer State:	California
Developer Zip:	94025
Developer Contact:	Jason Chang
Developer Contact Title:	Not Reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not Reported
Emergency Phone Ext:	Not Reported
Constype Above Ground Ind:	Y
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not Reported
Constype Other Ind:	N
Constype Recons Ind:	Y
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not Reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	Y
Receiving Water Name:	Not Reported
Certifier:	Jason Chang
Certifier Title:	Director of Operations
Certification Date:	14-OCT-13
Primary Sic:	Not Reported
Secondary Sic:	Not Reported

C S BIO CO, 20 KELLY COURT, MENLO PARK, CA 94025 (Continued)

Tertiary Sic:	Not Reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	441833
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not Reported
WDID:	2 41C368010
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	10/17/2013
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	08/28/2015
Discharge Name:	C S Bio Co
Discharge Address:	20 Kelly Court
Discharge City:	Menlo Park
Discharge State:	California
Discharge Zip:	94025
Received Date:	Not Reported
Processed Date:	Not Reported
Status:	Not Reported
Status Date:	Not Reported
Place Size:	Not Reported
Place Size Unit:	Not Reported
Contact:	Not Reported
Contact Title:	Not Reported
Contact Phone:	Not Reported
Contact Phone Ext:	Not Reported
Contact Email:	Not Reported
Operator Name:	Not Reported
Operator Address:	Not Reported
Operator City:	Not Reported
Operator State:	Not Reported
Operator Zip:	Not Reported
Operator Contact:	Not Reported
Operator Contact Title:	Not Reported
Operator Contact Phone:	Not Reported
Operator Contact Phone Ext:	Not Reported
Operator Contact Email:	Not Reported
Operator Type:	Not Reported
Developer:	Not Reported
Developer Address:	Not Reported
Developer City:	Not Reported
Developer State:	Not Reported
Developer Zip:	Not Reported

C S BIO CO, 20 KELLY COURT, MENLO PARK, CA 94025 (Continued)

Developer Contact:	Not Reported
Developer Contact Title:	Not Reported
Constype Linear Utility Ind:	Not Reported
Emergency Phone:	Not Reported
Emergency Phone Ext:	Not Reported
Constype Above Ground Ind:	Not Reported
Constype Below Ground Ind:	Not Reported
Constype Cable Line Ind:	Not Reported
Constype Comm Line Ind:	Not Reported
Constype Commertial Ind:	Not Reported
Constype Electrical Line Ind:	Not Reported
Constype Gas Line Ind:	Not Reported
Constype Industrial Ind:	Not Reported
Constype Other Description:	Not Reported
Constype Other Ind:	Not Reported
Constype Recons Ind:	Not Reported
Constype Residential Ind:	Not Reported
Constype Transport Ind:	Not Reported
Constype Utility Description:	Not Reported
Constype Utility Ind:	Not Reported
Constype Water Sewer Ind:	Not Reported
Dir Discharge Uswater Ind:	Not Reported
Receiving Water Name:	Not Reported
Certifier:	Not Reported
Certifier Title:	Not Reported
Certification Date:	Not Reported
Primary Sic:	Not Reported
Secondary Sic:	Not Reported
Tertiary Sic:	Not Reported

CIWQS: Other Ascertainable Records

Agency:	C S Bio Co
Agency Address:	20 Kelly Court, Menlo Park, CA 94025
Place/Project Type:	Construction - Above Ground, Reconstruction
SIC/NAICS:	Not Reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 41C368010
NPDES Number:	CAS000002
Adoption Date:	Not Reported
Effective Date:	10/17/2013
Termination Date:	08/28/2015
Expiration/Review Date:	Not Reported
Design Flow:	Not Reported
Major/Minor:	Not Reported
Complexity:	Not Reported

C S BIO CO, 20 KELLY COURT, MENLO PARK, CA 94025 (Continued)

TTWQ:	Not Reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.475595
Longitude:	-122.149562

C S BIO 20 KELLY CT, MENLO PARK, CA, 94025			S121737024
▲ K19	SE 1/10 - 1/3	(930 ft. / 0.176 mi.)	Local Lists of Hazardous waste / Contaminated Sites Other Ascertainable Records
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID:	100927
CERS ID:	10069345
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/10/2018. Maps incomplete, difficult to read, and inconsistent with location information in the inventory. Ensure maps show local streets, storm drains, etc., are legible (unlike the CAD drawings), and use the same location names used in the chemical inventory. Some of the maps are duplicates and some are CAD drawings with little utility. Please place all information on a single map of each floor of the building. Also, the legend and hazardous waste locations do not appear in the pdf version of the HMBP after consolidation with the forms. Please ensure any layers print out in a single pdf document before re-uploading the maps within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/10/2018. Incomplete information for some hazardous waste. Ensure chemical name field is properly completed. For example, in addition to "Purification Waste," name the chemicals (dichloromethane) or class of chemicals (solvents) predominantly found in the waste.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	100927
Site Name:	C S BIO
Violation Date:	05-16-2014
Citation:	22 CCR 12 66262.34(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(a)

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Violation Description:	Failure to obtain a permit or grant of interim status to accumulate hazardous waste longer than 90 days.
Violation Notes:	Returned to compliance on 06/11/2014. Facility had one container over the 90 day limit. However all other containers throughout the facility were in compliance with accumulation times. Advised facility to be diligent during hazardous waste inspections to not exceed accumulation times or this can result in a serious violation.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 15 66265.173 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 12/07/2015. All waste containers must be sealed and secured unless being actively filled by an individual. Waste containers were observed to not be closed tightly. The use of foil and parafin or plastic was found being used to secure container openings in the QC labs and GMP Production suites (pictures taken). Correct this immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 04/12/2018. Business unable to demonstrate initial and annual emergency response and spill cleanup training to all staff. Please ensure all are training and send verification to the inspection within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 11/23/2015. All waste containers must be labeled compliantly. Numerous solvent containers (carboys) and lab debris receptacles throughout the Main R&D lab were found to be mislabeled (pictures taken). Correct this immediately and provide verification to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	04-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Notes:	declined HMBP submittal due to missing EHS information on inventory and missing annual waste amounts on HMBP for liquid solvent waste.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-05-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	see comments
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-21-2013

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-04-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to follow-up on VOC emissions and open HW container during loading and product collection processes.PID worked and showed ND at waste lines and in process rm w appropriate source and setting. Containers were observed being closed after elution of product began. Elution ended after 20-30 min at which pt the HW container was opened and the tube reconnected to the adaptor cap. Accepted.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-13-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	talking with DTSC and C S BIO in the afternoon regarding this issue.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-14-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-20-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-20-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-23-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-22-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	prep
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to review corrective actions associated with open hazardous waste containers in synthesis and air emissions compliance activities.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-12-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-31-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-20-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	corrective action documents reviewed and corrected violatioksn shown
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-09-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-21-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-22-2016
Violations Found:	No

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Type:	Routine done by local agency
Eval Notes:	Solvent waste 548K pounds annual Solvent (potent peptide) 8,400 pounds annual Lab debris 12,475 pounds annual Generated on a irregular basis as business needs dictate.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Enforcement Action:

Site ID:	100927
Site Name:	C S BIO
Site Address:	20 KELLY CT
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Affiliation:

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	20 KELLY CT
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	C S BIO
Entity Title:	Not Reported
Affiliation Address:	20 KELLY
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Operator
Entity Name:	CSBio
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Parent Corporation
Entity Name:	C S BIO
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Ellen Ackerman
Entity Title:	Not Reported
Affiliation Address:	20 Kelly Court
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Document Preparer
Entity Name:	Kevin Yue
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jason Chang
Entity Title:	Chief Operating Officer
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Site ID:	100927
CERS ID:	10069345
CERS Description:	RCRA LQ HW Generator

Violations:

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/10/2018. Maps incomplete, difficult to read, and inconsistent with location information in the inventory. Ensure maps show local streets, storm drains, etc., are legible (unlike the CAD drawings), and use the same location names used in the chemical inventory. Some of the maps are duplicates and some are CAD drawings with little utility. Please place all information on a single map of each floor of the building. Also, the legend and hazardous waste locations do not appear in the pdf version of the HMBP after consolidation with the forms. Please ensure any layers print out in a single pdf document before re-uploading the maps within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/10/2018. Incomplete information for some hazardous waste. Ensure chemical name field is properly completed. For example, in addition to "Purification Waste," name the chemicals (dichloromethane) or class of chemicals (solvents) predominantly found in the waste.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	100927
Site Name:	C S BIO
Violation Date:	05-16-2014
Citation:	22 CCR 12 66262.34(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(a)
Violation Description:	Failure to obtain a permit or grant of interim status to accumulate hazardous waste longer than 90 days.
Violation Notes:	Returned to compliance on 06/11/2014. Facility had one container over the 90 day limit. However all other containers throughout the facility were in compliance with accumulation times. Advised facility to be diligent during hazardous waste inspections to not exceed accumulation times or this can result in a serious violation.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS

Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 15 66265.173 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 12/07/2015. All waste containers must be sealed and secured unless being actively filled by an individual. Waste containers were observed to not be closed tightly. The use of foil and parafin or plastic was found being used to secure container openings in the QC labs and GMP Production suites (pictures taken). Correct this immediately and provide verification to the County within 30 days

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 04/12/2018. Business unable to demonstrate initial and annual emergency response and spill cleanup training to all staff. Please ensure all are training and send verification to the inspection within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 11/23/2015. All waste containers must be labeled compliantly. Numerous solvent containers (carboys) and lab debris receptacles throughout the Main R&D lab were found to be mislabeled (pictures taken). Correct this immediately and provide verification to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	04-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	declined HMBP submittal due to missing EHS information on inventory and missing annual waste amounts on HMBP for liquid solvent waste.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2017

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-05-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	see comments
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-21-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-04-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to follow-up on VOC emissions and open HW container during loading and product collection processes.PID worked and showed ND at waste lines and in process rm w appropriate source and setting. Containers were observed being closed after elution of product began. Elution ended after 20-30 min at which pt the HW container was opened and the tube reconnected to the adaptor cap. Accepted.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-13-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	talking with DTSC and C S BIO in the afternoon regarding this issue.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-14-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-20-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-20-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-23-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-22-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	prep
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to review corrective actions associated with open hazardous waste containers in synthesis and air emissions compliance activities.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-12-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-31-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-20-2013
Violations Found:	No

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Type:	Other, not routine, done by local agency
Eval Notes:	corrective action documents reviewed and corrected violatioksn shown
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-09-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-21-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-22-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Solvent waste 548K pounds annual Solvent (potent peptide) 8,400 pounds annual Lab debris 12,475 pounds annual Generated on a irregular basis as business needs dictate.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Enforcement Action:

Site ID:	100927
Site Name:	C S BIO
Site Address:	20 KELLY CT
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Affiliation:

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	20 KELLY CT
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	C S BIO
Entity Title:	Not Reported
Affiliation Address:	20 KELLY
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Operator
Entity Name:	CSBio
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Parent Corporation
Entity Name:	C S BIO
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Ellen Ackerman
Entity Title:	Not Reported
Affiliation Address:	20 Kelly Court
Affiliation City:	Menlo Park

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Document Preparer
Entity Name:	Kevin Yue
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jason Chang
Entity Title:	Chief Operating Officer
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

CERS TANKS: Other Ascertainable Records

Site ID:	100927
CERS ID:	10069345
Site Name:	C S BIO
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Violation Notes:	Returned to compliance on 05/10/2018. Maps incomplete, difficult to read, and inconsistent with location information in the inventory. Ensure maps show local streets, storm drains, etc., are legible (unlike the CAD drawings), and use the same location names used in the chemical inventory. Some of the maps are duplicates and some are CAD drawings with little utility. Please place all information on a single map of each floor of the building. Also, the legend and hazardous waste locations do not appear in the pdf version of the HMBP after consolidation with the forms. Please ensure any layers print out in a single pdf document before re-uploading the maps within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/10/2018. Incomplete information for some hazardous waste. Ensure chemical name field is properly completed. For example, in addition to "Purification Waste," name the chemicals (dichloromethane) or class of chemicals (solvents) predominantly found in the waste.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	05-16-2014
Citation:	22 CCR 12 66262.34(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(a)
Violation Description:	Failure to obtain a permit or grant of interim status to accumulate hazardous waste longer than 90 days.
Violation Notes:	Returned to compliance on 06/11/2014. Facility had one container over the 90 day limit. However all other containers throughout the facility were in compliance with accumulation times. Advised facility to be diligent during hazardous waste inspections to not exceed accumulation times or this can result in a serious violation.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 15 66265.173 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.173
Violation Description:	Failure to properly close hazardous waste containers when not in active use.
Violation Notes:	Returned to compliance on 12/07/2015. All waste containers must be sealed and secured unless being actively filled by an individual. Waste containers were observed to not be closed tightly. The use of foil and parafin or plastic was found being used to secure container openings in the QC labs and GMP Production suites (pictures taken). Correct this immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	03-14-2018
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Violation Notes:	Returned to compliance on 04/12/2018. Business unable to demonstrate initial and annual emergency response and spill cleanup training to all staff. Please ensure all are training and send verification to the inspection within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	100927
Site Name:	C S BIO
Violation Date:	11-19-2015
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 11/23/2015. All waste containers must be labeled compliantly. Numerous solvent containers (carboys) and lab debris receptacles throughout the Main R&D lab were found to be mislabeled (pictures taken). Correct this immediately and provide verification to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HWLQG
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	04-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	declined HMBP submittal due to missing EHS information on inventory and missing annual waste amounts on HMBP for liquid solvent waste.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	05-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-05-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	see comments
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-21-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-04-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to follow-up on VOC emissions and open HW container during loading and product collection processes.PID worked and showed ND at waste lines and in process rm w appropriate source and setting. Containers were observed being closed after elution of product began. Elution ended after 20-30 min at which pt the HW container was opened and the tube reconnected to the adaptor cap. Accepted.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	11-13-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	talking with DTSC and C S BIO in the afternoon regarding this issue.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Date:	12-14-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-31-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-14-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-20-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-19-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	11-20-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	11-23-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-22-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	03-14-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	prep
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-03-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Onsite to review corrective actions associated with open hazardous waste containers in synthesis and air emissions compliance activities.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-12-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	07-31-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	08-20-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	corrective action documents reviewed and corrected violatioksn shown
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	10-09-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Eval Division:	San Mateo County Environmental Health
Eval Program:	PBR
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-05-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-21-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not Reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-22-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Solvent waste 548K pounds annual Solvent (potent peptide) 8,400 pounds annual Lab debris 12,475 pounds annual Generated on a irregular basis as business needs dictate.
Eval Division:	San Mateo County Environmental Health
Eval Program:	HWLQG
Eval Source:	CERS

Enforcement Action:

Site ID:	100927
Site Name:	C S BIO
Site Address:	20 KELLY CT
Site City:	MENLO PARK
Site Zip:	94025
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	San Mateo County Environmental Health
Enf Action Program:	HWLQG
Enf Action Source:	CERS

Affiliation:

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	20 KELLY CT

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	C S BIO
Entity Title:	Not Reported
Affiliation Address:	20 KELLY
Affiliation City:	MENLO PARK
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94025
Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Operator
Entity Name:	CSBio
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(650) 322-1111
Affiliation Type Desc:	Parent Corporation
Entity Name:	C S BIO
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Ellen Ackerman
Entity Title:	Not Reported
Affiliation Address:	20 Kelly Court
Affiliation City:	Menlo Park
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94025
Affiliation Phone:	Not Reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not Reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA

C S BIO, 20 KELLY CT, MENLO PARK, CA 94025 (Continued)

Affiliation Country:	Not Reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Document Preparer
Entity Name:	Kevin Yue
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jason Chang
Entity Title:	Chief Operating Officer
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

VACANT COMMERCIAL 1105 O'BRIEN DR, MENLO PARK, CA, 94025		S103622885
▲ P20	SE 1/10 - 1/3 (1266 ft. / 0.24 mi.) 2 ft. Higher Elevation 12 ft. Above Sea Level	Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

SWEEPS UST: Local Lists of Registered Storage Tanks

Status:	Active
Comp Number:	440004
Number:	9
Board Of Equalization:	Not Reported
Referral Date:	04-13-94
Action Date:	04-13-94
Created Date:	10-13-88
Owner Tank Id:	UNK
SWRCB Tank Id:	41-000-440004-000001
Tank Status:	A
Capacity:	1000
Active Date:	04-13-94
Tank Use:	UNKNOWN
STG:	P
Content:	Not Reported
Number Of Tanks:	1

VACANT COMMERCIAL, 1105 O'BRIEN DR, MENLO PARK, CA 94025 (Continued)

HIST CORTESE: Other Ascertainable Records

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-0858

WESTBAY STEEL INC 1 CASEY, MENLO PARK, CA, 94025			1001262826
▲ 21	ESE 1/10 - 1/3	(1266 ft. / 0.24 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	3 ft. Higher Elevation	13 ft. Above Sea Level	

Worksheet:

LUST: State and tribal leaking storage tank lists

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608192691
Global Id:	T0608192691
Latitude:	37.475681
Longitude:	-122.148459
Status:	Completed - Case Closed
Status Date:	09/20/2001
Case Worker:	Not Reported
RB Case Number:	41-1251
Local Agency:	Not Reported
File Location:	Local Agency Warehouse
Local Case Number:	440056
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not Reported

LUST:

Global Id:	T0608192691
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not Reported
Phone Number:	Not Reported

LUST:

Global Id:	T0608192691
Action Type:	Other
Date:	05/17/1999
Action:	Leak Reported

WESTBAY STEEL INC, 1 CASEY, MENLO PARK, CA 94025 (Continued)

Global Id:	T0608192691
Action Type:	ENFORCEMENT
Date:	06/24/1999
Action:	Notice of Responsibility - #1

LUST:

Global Id:	T0608192691
Status:	Completed - Case Closed
Status Date:	09/20/2001

Global Id:	T0608192691
Status:	Open - Case Begin Date
Status Date:	05/17/1999

San Mateo Co. BI: Other Ascertainable Records

Region:	SAN MATEO
Facility ID:	FA0036964
Prog Element Code:	GENERATES <27 GAL/YEAR
Record Id:	PR0061647
Description:	GENERATES <27 GAL/YEAR
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0036964
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0053869
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0036964
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0053868
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0052070
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0072196
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0052070
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0072195
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Active, billable

Region:	SAN MATEO

WESTBAY STEEL INC, 1 CASEY, MENLO PARK, CA 94025 (Continued)

Facility ID:	FA0052070
Prog Element Code:	STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id:	PR0072194
Description:	STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status:	Active, billable

Region:	SAN MATEO
Facility ID:	FA0022891
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0025747
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022891
Prog Element Code:	GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id:	PR0025745
Description:	GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022891
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0040609
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable

Region:	SAN MATEO
Facility ID:	FA0022891
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0025746
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Inactive, non-billable

HIST CORTESE: Other Ascertainable Records

Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	3261

CERS TANKS: Other Ascertainable Records

Site ID:	234718
CERS ID:	T0608192691
Site Name:	WESTBAY STEEL
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not Reported
Affiliation Address:	1515 CLAY ST SUITE 1400

WESTBAY STEEL INC, 1 CASEY, MENLO PARK, CA 94025 (Continued)

Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

JUPITER ENGINEERING 1105 O'BRIEN, MENLO PARK, CA, 94025			S104493822
▲ P22	SE 1/10 - 1/3	(1287 ft. / 0.244 mi.)	State and tribal leaking storage tank lists
	2 ft. Higher Elevation	12 ft. Above Sea Level	

Worksheet:

LUST: State and tribal leaking storage tank lists

Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100804
Global Id:	T0608100804
Latitude:	37.4745969
Longitude:	-122.1489461
Status:	Completed - Case Closed
Status Date:	12/06/1994
Case Worker:	Not Reported
RB Case Number:	41-0858
Local Agency:	Not Reported
File Location:	Local Agency Warehouse
Local Case Number:	440044
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not Reported

LUST:

Global Id:	T0608100804
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not Reported
Phone Number:	Not Reported

LUST:

Global Id:	T0608100804
Action Type:	Other
Date:	07/21/1994
Action:	Leak Reported

JUPITER ENGINEERING, 1105 O'BRIEN, MENLO PARK, CA 94025 (Continued)

Global Id:	T0608100804
Action Type:	ENFORCEMENT
Date:	07/21/1994
Action:	Notice of Responsibility - #1

LUST:

Global Id:	T0608100804
Status:	Completed - Case Closed
Status Date:	12/06/1994
Global Id:	T0608100804
Status:	Open - Case Begin Date
Status Date:	07/21/1994

KITTY CLEANERS
910 NEWBRIDGE, EAST PALO ALTO, CA, 943031023 S108543226

▲ 23	SSW 1/10 - 1/3	(1514 ft. / 0.287 mi.)	State and tribal leaking storage tank lists State and tribal Brownfields sites Other Ascertainable Records
	7 ft. Higher Elevation	17 ft. Above Sea Level	

Worksheet:

CPS-SLIC: State and tribal leaking storage tank lists

Site Name:	KITTY CLEANERS
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	10/30/2009
Global Id:	SL0608107863
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	Not Reported
Latitude:	37.472471
Longitude:	-122.154196
Case Type:	Cleanup Program Site
Case Worker:	MEJ
Local Agency:	Not Reported
RB Case Number:	41S0177
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	Not Reported
Click here to access the California GeoTracker records for this facility:	http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_SLIC_ST&global_id=SL0608107863

BROWNFIELDS: State and tribal Brownfields sites

Global ID:	SL0608107863
Latitude:	37.472471
Longitude:	-122.154196
Project Type:	Cleanup Program Site

KITTY CLEANERS, 910 NEWBRIDGE, EAST PALO ALTO, CA 943031023 (Continued)

Status:	Completed - Case Closed
Status Date:	10/30/2009
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Last Correspondence Date:	10/30/2009
Release Type:	Not Reported
Contaminant(s) of Concern:	Tetrachloroethylene (PCE)
Media of Concern:	Other Groundwater (uses other than drinking water)
Past Use(s) that Caused Contamination:	DRY CLEANING, FUEL - VEHICLE STORAGE/ REFUELING
Human Health Exposure Controlled:	YES
Human Health Exposure Controlled Date:	04/24/2008
Groundwater Migration Controlled:	NOT APPLICABLE
Groundwater Migration Controlled Date:	04/24/2008
Primary Caseworker Name:	MARK JOHNSON
Primary Caseworker Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Primary Caseworker Phone Number:	510-622-2493
Primary Caseworker Address:	1515 CLAY STREET, SUITE 1400
Primary Caseworker Address:	OAKLAND
Primary Caseworker Address:	CA
Primary Caseworker Email:	mjohnson@waterboards.ca.gov

CERS TANKS: Other Ascertainable Records

Site ID:	200383
CERS ID:	SL0608107863
Site Name:	KITTY CLEANERS
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	MARK JOHNSON - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not Reported
Affiliation Address:	1515 CLAY STREET, SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ENVIRONMENTAL RECORDS						
Federal NPL site list						
US	NPL	National Priority List	EPA	04/11/2019	04/18/2019	05/14/2019
US	Proposed NPL	Proposed National Priority List Sites	EPA	04/11/2019	04/18/2019	05/14/2019
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
Federal CERCLIS list						
US	SEMS	Superfund Enterprise Management System	EPA	03/11/2019	03/14/2019	04/17/2019
Federal RCRA CORRACTS facilities list						
US	CORRACTS	Corrective Action Report	EPA	03/25/2019	03/27/2019	04/17/2019
Federal RCRA TSD facilities list						
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/25/2019	03/27/2019	04/17/2019
Federal RCRA generators list						
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/25/2019	03/27/2019	04/17/2019
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/25/2019	03/27/2019	04/17/2019
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	03/25/2019	03/27/2019	04/17/2019
Federal institutional controls / engineering controls registries						
US	LUCIS	Land Use Control Information System	Department of the Navy	02/22/2019	03/07/2019	04/17/2019
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	01/31/2019	02/04/2019	03/08/2019
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	01/31/2019	02/04/2019	03/08/2019
Federal ERNS list						
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	03/25/2019	03/26/2019	05/01/2019
State and tribal - equivalent NPL						
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
State and tribal - equivalent CERCLIS						
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
State and tribal landfill / solid waste disposal						
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	02/11/2019	02/12/2019	03/05/2019
State and tribal leaking storage tank lists						
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/13/2018	03/07/2019	05/01/2019
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/17/2018	03/07/2019	05/01/2019
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/10/2018	03/08/2019	05/01/2019
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/16/2018	03/07/2019	05/01/2019
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	02/19/2019	03/07/2019	05/01/2019
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	11/01/2018	03/07/2019	05/01/2019
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	09/24/2018	03/12/2019	05/01/2019
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/12/2018	03/07/2019	05/01/2019
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
State and tribal registered storage tank lists						
CA	UST	Active UST Facilities	SWRCB	12/10/2018	12/11/2018	01/15/2019
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	03/11/2019	03/13/2019	04/03/2019
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	UST MENDOCINO	Mendocino County UST Database	Department of Public Health	12/04/2018	12/06/2018	12/14/2018
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/17/2018	03/07/2019	05/01/2019
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/10/2018	03/08/2019	05/01/2019
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/16/2018	03/07/2019	05/01/2019
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	11/07/2018	03/07/2019	05/01/2019
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	11/01/2018	03/07/2019	05/01/2019
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/03/2018	03/07/2019	05/01/2019
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	09/24/2018	03/12/2019	05/01/2019
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	10/12/2018	03/07/2019	05/01/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
State and tribal voluntary cleanup sites						
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
State and tribal Brownfields sites						
CA	BROWNFIELDS	Considered Brownfieds Sites Listing	State Water Resources Control Board	03/25/2019	03/26/2019	04/29/2019
Other Records						
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	12/31/2018	02/11/2019	03/21/2019
US	ROD	Records Of Decision	EPA	03/11/2019	03/14/2019	04/01/2019
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	03/11/2019	03/14/2019	03/21/2019
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
CA	SWRCY	Recycler Database	Department of Conservation	03/11/2019	03/13/2019	04/30/2019
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	09/11/2018	09/12/2018	10/11/2018
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	02/24/2019	02/26/2019	04/17/2019
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	04/11/2019	04/18/2019	05/14/2019
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	03/25/2019	03/26/2019	05/07/2019
US	Delisted NPL	National Priority List Deletions	EPA	04/11/2019	04/18/2019	05/14/2019
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	03/11/2019	03/14/2019	04/17/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/25/2019	03/27/2019	04/17/2019
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/25/2019	03/26/2019	05/14/2019
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	12/03/2018	01/29/2019	03/21/2019
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	02/24/2019	02/26/2019	04/17/2019
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	12/17/2018	12/18/2018	01/11/2019
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017	10/11/2017	11/03/2017
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/27/2018	02/27/2019	04/01/2019
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	PRP	Potentially Responsible Parties	EPA	03/11/2019	03/14/2019	04/17/2019
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	PADS	PCB Activity Database System	EPA	03/20/2019	04/10/2019	05/14/2019
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	RADINFO	Radiation Information Database	Environmental Protection Agency	04/02/2019	04/02/2019	05/14/2019
US	FINDS	Facility Index System/Facility Registry System	EPA	02/15/2019	03/05/2019	03/15/2019
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RMP	Risk Management Plans	Environmental Protection Agency	02/01/2019	02/14/2019	03/21/2019
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	PWS	Public Water System Data	EPA	12/17/2013	01/09/2014	10/15/2014
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	ABANDONED MINES	Abandoned Mines	Department of Interior	03/27/2019	03/28/2019	05/01/2019
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2017	06/12/2018	08/06/2018
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	10/24/2018	01/24/2019	03/05/2019
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	03/25/2019	03/26/2019	05/01/2019
CA	CUPA SAN FRANCISCO CO	CUPA Facility Listing	San Francisco County Department of Environmen	04/18/2019	04/19/2019	04/30/2019
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	01/23/2019	02/26/2019	04/01/2019
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	03/04/2019	03/05/2019	04/01/2019
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	12/13/2018	01/17/2019	03/05/2019
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	02/27/2019	02/28/2019	04/01/2019
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	03/19/2019	03/22/2019	04/09/2019
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2017	06/20/2018	08/06/2018
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	11/01/2018	11/02/2018	12/13/2018
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	01/10/2019	01/23/2019	03/05/2019
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	02/15/2019	02/19/2019	03/05/2019
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	03/26/2019	03/27/2019	04/30/2019
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2017	10/10/2018	11/16/2018
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	02/19/2019	02/20/2019	03/05/2019
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	01/07/2019	01/08/2019	03/05/2019
CA	ICE	ICE	Department of Toxic Subsances Control	02/19/2019	02/20/2019	03/05/2019
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Qualilty Control Board	12/10/2018	12/11/2018	01/15/2019
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	02/28/2019	03/01/2019	04/02/2019
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	MINES	Mines Site Location Listing	Department of Conservation	12/10/2018	12/12/2018	01/15/2019
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	02/20/2019	03/05/2019	04/02/2019
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	02/11/2019	02/12/2019	03/07/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	03/04/2019	03/05/2019	04/05/2019
CA	PROC	Certified Processors Database	Department of Conservation	03/11/2019	03/13/2019	04/29/2019
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	03/18/2019	03/19/2019	04/29/2019
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	04/27/2018	06/13/2018	07/17/2018
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	05/08/2018	07/11/2018	09/13/2018
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	03/05/2019	03/05/2019	04/02/2019
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	03/11/2019	03/13/2019	04/29/2019
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	03/03/2019	03/05/2019	04/01/2019
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	12/10/2018	12/11/2018	01/15/2019
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	04/09/2019	04/11/2019	05/08/2019
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/31/2018	07/26/2018	10/05/2018
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/19/2019	02/21/2019	04/01/2019
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2017	01/17/2019	04/01/2019
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	04/09/2019	04/11/2019	05/08/2019
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	04/09/2019	04/11/2019	05/08/2019
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	02/21/2019	02/22/2019	04/15/2019

HISTORICAL USE RECORDS

US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013

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St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
COUNTY RECORDS						
CA	CS ALAMEDA	Contaminated Sites	Alameda County Environmental Health Services	01/09/2019	01/11/2019	03/05/2019
CA	UST ALAMEDA	Underground Tanks	Alameda County Environmental Health Services	01/07/2019	01/08/2019	03/08/2019
CA	CUPA AMADOR	CUPA Facility List	Amador County Environmental Health	01/07/2019	01/08/2019	03/07/2019
CA	CUPA BUTTE	CUPA Facility Listing	Public Health Department	04/21/2017	04/25/2017	08/09/2017
CA	CUPA CALVERAS	CUPA Facility Listing	Calveras County Environmental Health	01/24/2019	01/25/2019	03/05/2019
CA	CUPA COLUSA	CUPA Facility List	Health & Human Services	02/27/2019	02/28/2019	04/01/2019
CA	SL CONTRA COSTA	Site List	Contra Costa Health Services Department	02/14/2019	02/19/2019	03/08/2019
CA	CUPA DEL NORTE	CUPA Facility List	Del Norte County Environmental Health Divisio	01/16/2019	02/05/2019	03/05/2019
CA	CUPA EL DORADO	CUPA Facility List	El Dorado County Environmental Management Dep	02/27/2019	02/28/2019	04/01/2019
CA	CUPA FRESNO	CUPA Resources List	Dept. of Community Health	04/10/2019	04/11/2019	04/30/2019
CA	CUPA GLENN	CUPA Facility List	Glenn County Air Pollution Control District	01/22/2018	01/24/2018	03/14/2018
CA	CUPA HUMBOLDT	CUPA Facility List	Humboldt County Environmental Health	12/11/2018	12/13/2018	01/15/2019
CA	CUPA IMPERIAL	CUPA Facility List	San Diego Border Field Office	01/18/2019	01/23/2019	03/05/2019
CA	CUPA INYO	CUPA Facility List	Inyo County Environmental Health Services	04/02/2018	04/03/2018	06/14/2018
CA	UST KERN	Underground Storage Tank Sites & Tank Listing	Kern County Environment Health Services Depar	01/28/2019	02/07/2019	03/08/2019
CA	CUPA KINGS	CUPA Facility List	Kings County Department of Public Health	02/14/2019	02/19/2019	03/05/2019
CA	CUPA LAKE	CUPA Facility List	Lake County Environmental Health	02/08/2019	02/12/2019	03/12/2019
CA	CUPA LASSEN	CUPA Facility List	Lassen County Environmental Health	01/17/2019	01/18/2019	03/05/2019
CA	AOCONCERN	Key Areas of Concerns in Los Angeles County		03/30/2009	03/31/2009	10/23/2009
CA	HMS LOS ANGELES	HMS: Street Number List	Department of Public Works	12/19/2018	01/10/2019	03/07/2019
CA	LF LOS ANGELES	List of Solid Waste Facilities	La County Department of Public Works	01/14/2019	01/15/2019	03/07/2019
CA	LF LOS ANGELES CITY	City of Los Angeles Landfills	Engineering & Construction Division	01/01/2019	01/15/2019	03/07/2019
CA	SITE MIT LOS ANGELES	Site Mitigation List	Community Health Services	01/30/2019	02/01/2019	03/07/2019
CA	UST EL SEGUNDO	City of El Segundo Underground Storage Tank	City of El Segundo Fire Department	01/21/2017	04/19/2017	05/10/2017
CA	UST LONG BEACH	City of Long Beach Underground Storage Tank	City of Long Beach Fire Department	03/09/2017	03/10/2017	05/03/2017
CA	UST TORRANCE	City of Torrance Underground Storage Tank	City of Torrance Fire Department	10/02/2018	10/05/2018	11/02/2018
CA	CUPA MADERA	CUPA Facility List	Madera County Environmental Health	02/20/2019	02/22/2019	03/07/2019
CA	UST MARIN	Underground Storage Tank Sites	Public Works Department Waste Management	09/26/2018	10/04/2018	11/02/2018
CA	CUPA MERCED	CUPA Facility List	Merced County Environmental Health	03/11/2019	03/19/2019	05/08/2019
CA	CUPA MONO	CUPA Facility List	Mono County Health Department	02/21/2019	02/26/2019	04/01/2019
CA	CUPA MONTEREY	CUPA Facility Listing	Monterey County Health Department	02/05/2019	02/07/2019	03/05/2019
CA	LUST NAPA	Sites With Reported Contamination	Napa County Department of Environmental Manag	01/09/2017	01/11/2017	03/02/2017
CA	UST NAPA	Closed and Operating Underground Storage Tank Sites	Napa County Department of Environmental Manag	02/21/2019	02/22/2019	03/08/2019
CA	CUPA NEVADA	CUPA Facility List	Community Development Agency	01/25/2019	01/29/2019	03/05/2019
CA	IND_SITE ORANGE	List of Industrial Site Cleanups	Health Care Agency	01/02/2019	02/07/2019	03/05/2019
CA	LUST ORANGE	List of Underground Storage Tank Cleanups	Health Care Agency	01/02/2019	02/08/2019	03/06/2019
CA	UST ORANGE	List of Underground Storage Tank Facilities	Health Care Agency	01/02/2019	02/05/2019	03/08/2019
CA	MS PLACER	Master List of Facilities	Placer County Health and Human Services	02/28/2019	03/01/2019	04/12/2019
CA	CUPA PLUMAS	CUPA Facility List	Plumas County Environmental Health	01/14/2019	01/18/2019	03/05/2019
CA	LUST RIVERSIDE	Listing of Underground Tank Cleanup Sites	Department of Environmental Health	04/11/2019	04/12/2019	04/30/2019
CA	UST RIVERSIDE	Underground Storage Tank Tank List	Department of Environmental Health	01/29/2019	01/31/2019	03/08/2019
CA	CS SACRAMENTO	Toxic Site Clean-Up List	Sacramento County Environmental Management	11/07/2018	01/04/2019	03/05/2019
CA	ML SACRAMENTO	Master Hazardous Materials Facility List	Sacramento County Environmental Management	11/07/2018	12/28/2018	03/05/2019
CA	CUPA SAN BENITO	CUPA Facility List	San Benito County Environmental Health	03/11/2019	03/13/2019	04/30/2019
CA	PERMITS SAN BERNARDINO	Hazardous Material Permits	San Bernardino County Fire Department Hazardo	02/27/2019	02/28/2019	04/02/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	HMMD SAN DIEGO	Hazardous Materials Management Division Database	Hazardous Materials Management Division	03/04/2019	03/05/2019	04/02/2019
CA	LF SAN DIEGO	Solid Waste Facilities	Department of Health Services	04/18/2018	04/24/2018	06/19/2018
CA	SAN DIEGO CO LOP	Local Oversight Program Listing	Department of Environmental Health	03/06/2019	03/06/2019	04/29/2019
CA	SAN DIEGO CO. SAM	Environmental Case Listing	San Diego County Department of Environmental	03/23/2010	06/15/2010	07/09/2010
CA	LUST SAN FRANCISCO	Local Oversite Facilities	Department Of Public Health San Francisco Cou	09/19/2008	09/19/2008	09/29/2008
CA	UST SAN FRANCISCO	Underground Storage Tank Information	Department of Public Health	11/05/2018	11/06/2018	12/14/2018
CA	UST SAN JOAQUIN	San Joaquin Co. UST	Environmental Health Department	06/22/2018	06/26/2018	07/11/2018
CA	CUPA SAN LUIS OBISPO	CUPA Facility List	San Luis Obispo County Public Health Departme	02/13/2019	02/15/2019	03/14/2019
CA	BI SAN MATEO	Business Inventory	San Mateo County Environmental Health Service	03/04/2019	03/13/2019	04/29/2019
CA	LUST SAN MATEO	Fuel Leak List	San Mateo County Environmental Health Service	12/13/2018	12/18/2018	01/23/2019
CA	CUPA SANTA BARBARA	CUPA Facility Listing	Santa Barbara County Public Health Department	09/08/2011	09/09/2011	10/07/2011
CA	CUPA SANTA CLARA	Cupa Facility List	Department of Environmental Health	02/13/2019	02/19/2019	03/06/2019
CA	HIST LUST SANTA CLARA	HIST LUST - Fuel Leak Site Activity Report	Santa Clara Valley Water District	03/29/2005	03/30/2005	04/21/2005
CA	LUST SANTA CLARA	LOP Listing	Department of Environmental Health	03/03/2014	03/05/2014	03/18/2014
CA	SAN JOSE HAZMAT	Hazardous Material Facilities	City of San Jose Fire Department	01/30/2019	02/01/2019	03/07/2019
CA	CUPA SANTA CRUZ	CUPA Facility List	Santa Cruz County Environmental Health	01/21/2017	02/22/2017	05/23/2017
CA	CUPA SHASTA	CUPA Facility List	Shasta County Department of Resource Manageme	06/15/2017	06/19/2017	08/09/2017
CA	LUST SOLANO	Leaking Underground Storage Tanks	Solano County Department of Environmental Man	03/05/2019	03/07/2019	04/29/2019
CA	UST SOLANO	Underground Storage Tanks	Solano County Department of Environmental Man	03/05/2019	03/07/2019	04/03/2019
CA	CUPA SONOMA	Cupa Facility List	County of Sonoma Fire & Emergency Services De	03/18/2019	03/26/2019	05/01/2019
CA	LUST SONOMA	Leaking Underground Storage Tank Sites	Department of Health Services	04/03/2019	04/11/2019	04/30/2019
CA	CUPA STANISLAUS	CUPA Facility List	Stanislaus County Department of Ennvironmenta	12/11/2018	12/13/2018	01/15/2019
CA	UST SUTTER	Underground Storage Tanks	Sutter County Environmental Health Services	02/28/2019	03/01/2019	04/03/2019
CA	CUPA TEHAMA	CUPA Facility List	Tehama County Department of Environmental Hea	12/13/2018	12/18/2018	01/15/2019
CA	CUPA TRINITY	CUPA Facility List	Department of Toxic Substances Control	01/18/2019	01/23/2019	03/06/2019
CA	CUPA TULARE	CUPA Facility List	Tulare County Environmental Health Services D	12/26/2018	12/27/2018	01/15/2019
CA	CUPA TUOLUMNE	CUPA Facility List	Divison of Environmental Health	04/23/2018	04/25/2018	06/25/2018
CA	BWT VENTURA	Business Plan, Hazardous Waste Producers, and Operating Unde	Ventura County Environmental Health Division	12/26/2018	01/24/2019	02/28/2019
CA	LF VENTURA	Inventory of Illegal Abandoned and Inactive Sites	Environmental Health Division	12/01/2011	12/01/2011	01/19/2012
CA	LUST VENTURA	Listing of Underground Tank Cleanup Sites	Environmental Health Division	05/29/2008	06/24/2008	07/31/2008
CA	MED WASTE VENTURA	Medical Waste Program List	Ventura County Resource Management Agency	12/26/2018	01/24/2019	03/07/2019
CA	UST VENTURA	Underground Tank Closed Sites List	Environmental Health Division	02/26/2019	03/13/2019	04/03/2019
CA	UST YOLO	Underground Storage Tank Comprehensive Facility Report	Yolo County Department of Health	12/26/2018	01/03/2019	01/16/2019
CA	CUPA YUBA	CUPA Facility List	Yuba County Environmental Health Department	02/08/2019	02/12/2019	03/06/2019

STREET AND ADDRESS INFORMATION

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APPENDIX A: Regulatory Agency Files - Willow Corners LLC, Willow Corners LLC-UST Site, 1283 Willow Road, Menlo Park, CA 94025

COUNTY OF SAN MATEO - GROUNDWATER PROTECTION PROGRAM

SITE DATA SHEET

Run date: 6/22/00

Record ID **RO0001819** Local Site ID **440061** RWB Site ID

Site Name **CLARK PROPERTY** Substance **8006619** Petroleum **Y**

Site Contact Census

Adrs **1283** **WILLOW** **RD** District

Location **44**

City,St,Zip **MENLO PARK** **CA 94025** City Code **MP**

Phone Ext Reported **10/12/99**

Confirmed **10/12/99**

Case Type **O** Program Element **2500**

Fund Source **F** Contract Status **9** Emergency Response Date

Employee **EE0003180** Case List **FUEL** LUFT Considerations

	S/I/C	Start Date	End Date	Remedial Action
Responsible Party Search	**S**	**1/31/00**	**1/31/00**	Remedial Action #1
Preliminary Site Assess	**C**	**8/23/99**	**10/12/99**	Remedial Action #2
Remedial Investigation				Remedial Action #3
Remedial Action				Remedial Action #4
Post Remedial Mon	**U**	**10/12/99**		Remedial Action #5
Case Closed	**Y**	Case Closure Date	**6/14/00**	Remedial Action #6
Enforcement Action	**Y**	Enf Type **1** Date:	**2/15/00**	Remedial Action #7

Interim Remediation **N** Interim Date Local Oversight Prgm **41000**

LUSTIS update Priority **3B** Lead Agency **L**

Review Status Catagory Latitude

Longitude

Concentrations	Maximum	Current		
TPH Soil	**180**		# Monitoring Wells	**0**
TPH- GW	**3500**	**3500**	Depth to GW	
Benzene Soil	**ND**		Amt Free Product	
Benzene GW	**ND**	**ND**	Amt Dissolved Product	
MtBE-GW	**ND**	**ND**	MtBE - Soil	**ND**

Notification/Deed **NOTE** Contaminated Soil Left In Place

Comments

Mult RP? Number of RPs Corr Due Date

RP Name MICHAEL CLARK

Address 1355 HAYNE RD

City/st/zip HILLSBOROUGH CA 94010

COUNTY OF SAN MATEO - GROUNDWATER PROTECTION PROGRAM

SITE DATA SHEET

Run date: 2/29/00

Record ID **RO0001819** Local Site ID **440061** RWB Site ID

Site Name **CLARK PROPERTY** Substance **8006619** Petroleum **Y**

Site Contact Census

Adrs **1283** **WILLOW** **RD** District

Location **44**

City,St,Zip **MENLO PARK** **CA 94025** City Code **MP**

Phone Ext Reported **10/12/99**

Confirmed **10/12/99**

Case Type **O** Program Element **2500**

Fund Source **F** Contract Status **8** Emergency Response Date

Employee **EE0003180** Case List LUFT Considerations

	S/I/C	Start Date	End Date	Remedial Action
Responsible Party Search	**S**	**1/31/00**	**1/31/00**	Remedial Action #1
Preliminary Site Assess	**C**	**8/23/99**	**10/12/99**	Remedial Action #2
Remedial Investigation				Remedial Action #3
Remedial Action				Remedial Action #4
Post Remedial Mon	**U**	**10/12/99**		Remedial Action #5
Case Closed		Case Closure Date		Remedial Action #6
Enforcement Action	**Y**	Enf Type Date:	**2/15/00**	Remedial Action #7

Interim Remediation **N** Interim Date Local Oversight Prgm **41000**

LUSTIS update Priority **3B** Lead Agency **L**

Review Status Catagory Latitude

Longitude

Concentrations	Maximum	Current		
TPH Soil	**180**		# Monitoring Wells	**0**
TPH- GW	**3500**	**3500**	Depth to GW	
Benzene Soil	**ND**		Amt Free Product	
Benzene GW	**ND**	**ND**	Amt Dissolved Product	
MtBE-GW	**ND**	**ND**	MtBE - Soil	**ND**

Notification/Deed Contaminated Soil Left In Place

Comments

Mult RP? Number of RPs Corr Due Date

RP Name MICHAEL CLARK

Address 1355 HAYNE RD

City/st/zip HILLSBOROUGH CA 94010

STANDARD AGREEMENT NO. 8-014-550-0

State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program

Notice of Responsibility

Local Site ID#:	**440061**	Reported Date:	**10/12/99**
Site Name:	**CLARK PROPERTY**	Substance:	**8006619**
Address:	**1283 WILLOW RD**	Funding:	**F**
City/St/Zip:	**MENLO PARK CA 94025**		

Multiple Responsible Parties? (If yes, refer to additional NOR's)

Company Name:
Contact Name : **MICHAEL CLARK**
Address: **1355 HAYNE RD**
City/State/Zip: **HILLSBOROUGH CA 94010**
Country:

Pursuant to Sections 25297.1 and 25297.15 of the Health and Safety Code, you are hereby notified that the above site has been placed in the Local Oversight Program and the individual(s) or entity(ies) shown above, or on the attached list, has (have) been identified as the party(ies) responsible for investigation and cleanup of the above site. Section 25975.15 further requires the primary or active responsible party to notify all current record owners of fee title before the local agency considers cleanup or site closure proposals or issues a closure letter. For purposes of implementing section 25297.15, this agency has identified all responsible parties as active Responsible Parties. It is the responsibility of the primary or active Responsible Party to submit a letter to this agency within 20 calendar days or receipt of this notice which identified all curent record owners of fee title. It is also the responsibility of the primary or active Responsible Party to certify to the local agency that the required notifications have been made at the time a cleanup or site closure proposal is made or before the local agency makes a determination that no further action is required. If property ownership changes in the future, you must notify this local agency within 20 calendar days from when you are informed of the change.

Any action or inaction by San Mateo County, associated with corrective action, including responsible party identification, is subject to petition to the State Water Resources Control Board. Petitions must be filed within thirty (30) days from the action /inaction. To obtain petition procedures, please FAX your request to the State Water Resources Control Board at (916) 227-4349 or telehpone (916) 227-4408.

Pursuant to Section 25299.37(c)(7) of the Health and Safety Code, a responsible party may request the designation of an administering agency when required to conduct corrective actions. Please contact this office for further information about the site designation process.

Contract Project Director: Dean D. Peterson, REHS, PE, Deputy Director, Environmental Health

Signature (650) 363-4305 Date 2/25/00

Add: _____ Reason: _____
Delete: _____ Reason: _____
Change: _____ Reason: _____

Report #7005

Deno Milano - RE: 1283-1299 Willow Rd

From: Deno Milano
To: Gary Moiseff; Ron J Lafrance
Date: 3/25/2008 1:17 PM
Subject: RE: 1283-1299 Willow Rd
CC: William McClure

Thanks Ron for the emails (I did not review prior to leaving you my voice mail message). I have discussed the matter with Pete Smith (650-599-1600) of our CUPA who handles UST issues. The contractor will need to contact Pete to obtain a UST removal permit and coordinate the removal with him. However, I need is a scaled map indicating where the UST(s) were discovered. Perhaps Gary could fax this map to my attention at 650-363-7882.

Deno G. Milano, PG
San Mateo County Groundwater Protection Program
455 County Center
Redwood City, CA 94063
(650) 363-4972 ph.
(650) 363-7882 fax.

Confidentiality Notice: This e-mail message, including any attachments, is for the sole use of intended recipient (s) and may contain confidential and protected information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

>>> "Lafrance, Ron J" <RJLafrance@menlopark.org> 3/25/2008 10:47 AM >>>
Gary,

Thanks for the clarification. The information I received was in accurate.

Ron

From: Gary Moiseff [mailto:gary.moiseff@vancebrown.com]
Sent: Tuesday, March 25, 2008 10:37 AM
To: Lafrance, Ron J
Cc: dmilano@co.sanmateo.ca.us; McClure, William
Subject: Re: 1283-1299 Willow Rd

3/25/08
Ron-
Your statement is mis-leading. To the best of my knowledge, only one tank has been found. The tank has not been ruptured but what appear to be the fill pipe and the vent pipe have been broken off. The liquid that was in these pipes was spilled. The volume of this liquid is < 1 gallon. The liquid appears to be used motor oil. We have isolated the soil material that absorbed that liquid.
The good news is that the tank is full and apparently NOT ruptured and NOT leaking.
We are in the process of making arrangements to have the used motor oil properly removed and properly disposed of. We will also make sure that the oil-impregnated soil is properly disposed of.
Regards,
GM

Gary Moiseff
(415) 860-6174

On Mar 25, 2008, at 10:10 AM, Lafrance, Ron J wrote:

Mr. Milano,

While preparing the site for construction and excavating for new footings at 1283-1299 Willow Rd., buried underground storage tanks filled with fluid were discovered and there was some spillage when one of the tanks was ruptured. This e-mail serves as official notification of the spillage. The contractor and developer are aware of the problem and should be contacting you. If you do not receive any notification from them, the developer, Gary Moiseff, can be reached at gary.moiseff@vancebrown.com.

Ron La France
Building Official
City of Menlo Park

HEALTH SERVICES AGENCY

June 14, 2000

Michael Clark
1355 Hayne Road
Hillsborough, CA 94010

SMCo Site# 440061

SUBJECT: CASE CLOSURE OF ONE 4000-GALLON GASOLINE, ONE 6000-GALLON GASOLINE AND ONE 280-GALLON WASTE OIL UST AT 1283 WILLOW ROAD (AKA 1224 CARLTON AVENUE), MENLO PARK, CALIFORNIA

Dear Mr. Clark:

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on the information in the above referenced file, and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Dean D. Peterson, PE, REHS
Director, Environmental Health

cc: RWQCB
SWRCB

SAN MATEO COUNTY CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANKS PROGRAM

I. AGENCY INFORMATION

455 County Center, Redwood City, CA 94063
County Project Manager: Gregory J. Smith
Title: Haz-Mat Specialist
Telephone Number: 650-599-1679

Response requested by
JUL 0 8 2000

II. CASE INFORMATION

Site Name: Clark Property
Site address: 1283 Willow Road (aka 1224 Carlton Avenue), Menlo Park

LUSTIS Case #: N/A	*Local Case #: 440061?*	RWB CASE # *41-????*
Record ID #: 001819	*URF Filing Date:*	*SWEEPS#:*

Responsible Party Information

Name	*Address*	*Phone #*
Michael Clark	1355 Hayne Road Hillsborough, CA 94010	*650-347-0919*

Tank Information

Tank #	*Size in Gallons*	*Contents*	*REMOVED*	*Date*
1	4000	Gasoline	Removed	1978
2	6000	Gasoline	Removed	1978
3	280	Waste Oil	Removed	1978

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: *Unknown*
Site Characterization Complete? *Yes*
Date Approved by Oversight Agency: *1/24/00*
Number of Monitoring wells Installed: *0*
Proper screened interval? *NA*
Highest GW depth BGS: *NA*
Flow Direction: *north (based on regional and nearby sites)*
Most sensitive GW use: *potential agricultural as specified in Basin Plan*
Are Drinking Water affected? *No* Aquifer Name:
Is Surface Water Affected? *No* Nearest/Affected SW: *SF Bay*
Off-Site Beneficial use Impacts (Location): *None*
Report(s) on File? *Yes* Where is it filed? *SMCo*

Treatment and Disposal of Affected Material

Material	*Amount (Include units)*	*Treatment or disposal*	*Date*
3 tanks as listed above	Various, see above	Unknown	1978

Maximum Documented Contaminant Concentrations - Before and After Cleanup

	SOIL (PPM)		GROUNDWATER (PPB)	
Contaminant	*Before*	*After*	*Before*	*After*
TPH-gasoline	NA	180	NA	910
TPH-diesel	NA	140	NA	3500*
MtBE	NA	<0.2	NA	<5
Benzene	NA	<0.01	NA	<0.5
Toluene	NA	0.051	NA	0.92
Ethylbenzene	NA	<0.02	NA	3.4
Xylenes	NA	0.059	NA	2.7

*analytical notes that gasoline is significant, abundant sediment in sample, and fuel is highly weathered. No silica gel cleanup was performed.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? *Yes*
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? *Yes*
Does corrective action protect public health for current land use? *Yes*
Site Management Requirements: *Building department notification, see below*
Should corrective action be reviewed if land use changes? *No*
Monitoring Wells to be Decommissioned? *0* Number Decommissioned: Number Retained:
List Enforcement Actions Taken: *None*
List Enforcement Action Rescinded: *None*

V. RWQCB Notification

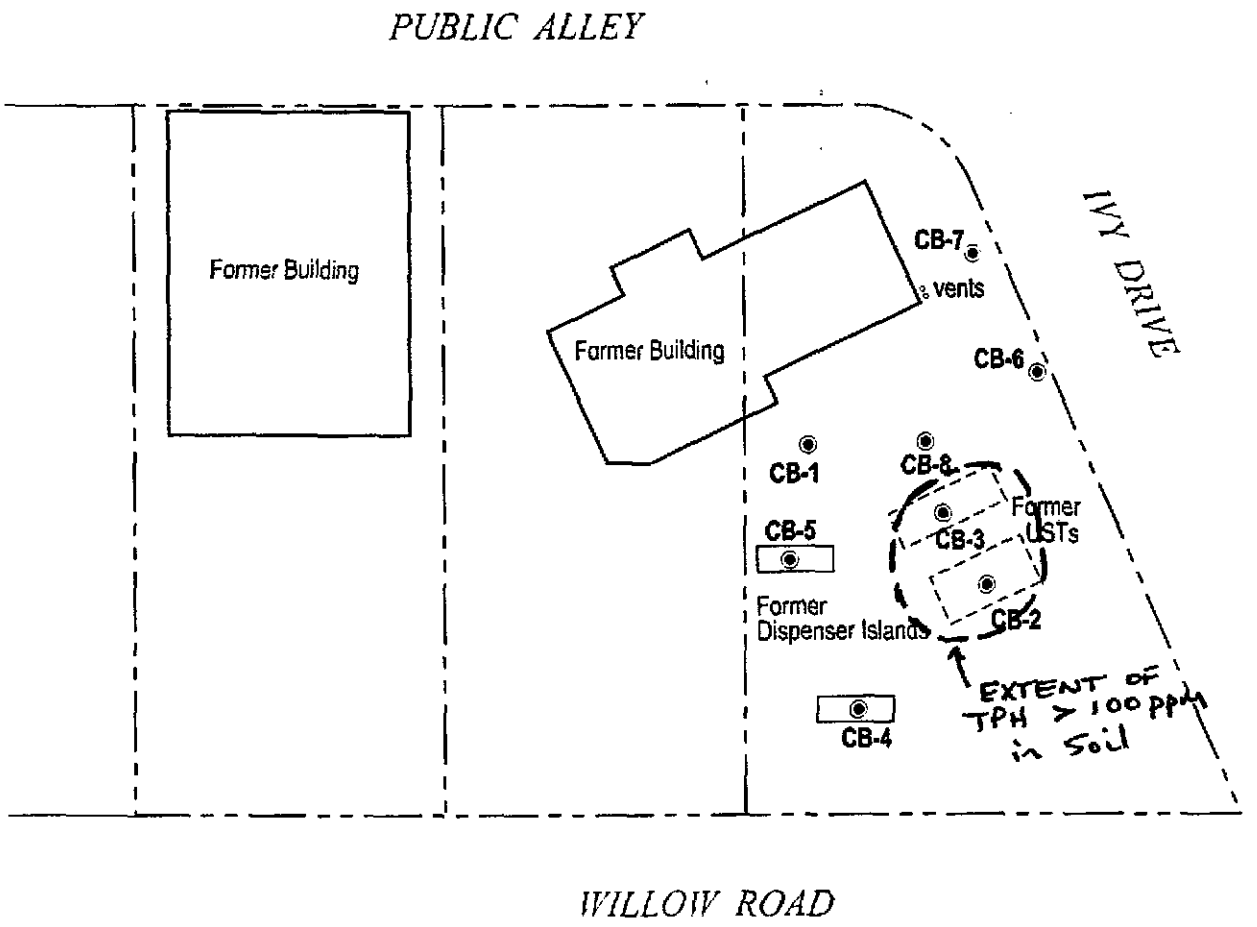
Date Submitted to RB: 6/8/00	*RB Response:* Verbal approval 6/8/00
RB Staff: Nancy Katz	*Title:*

Notes:
City of Menlo Park Building Department sent letter stating that should excavation or development of the property be proposed, the San Mateo County Environmental Health Division will be notified to ensure proper disposal or handling of contaminated soils. The volume of residual petroleum hydrocarbons in soil at concentrations greater than 100 ppm is estimated to be less than 20 cubic yards. Please refer to Figure 2 for details delineating the extent of remaining soil contamination. Should any change in use of the property or development of the subject site occur which may impact these soils or groundwater, City Building Departments must notify the Environmental Health Division for approval pursuant to Government Code Section 65850.2.2.

Dean D. Peterson, Director, Environmental Health

6/14/00
Date

09/14/99



EXPLANATION

CB-1 ◉ Soil boring location

0 15 30

Scale (ft)

FIGURE

2

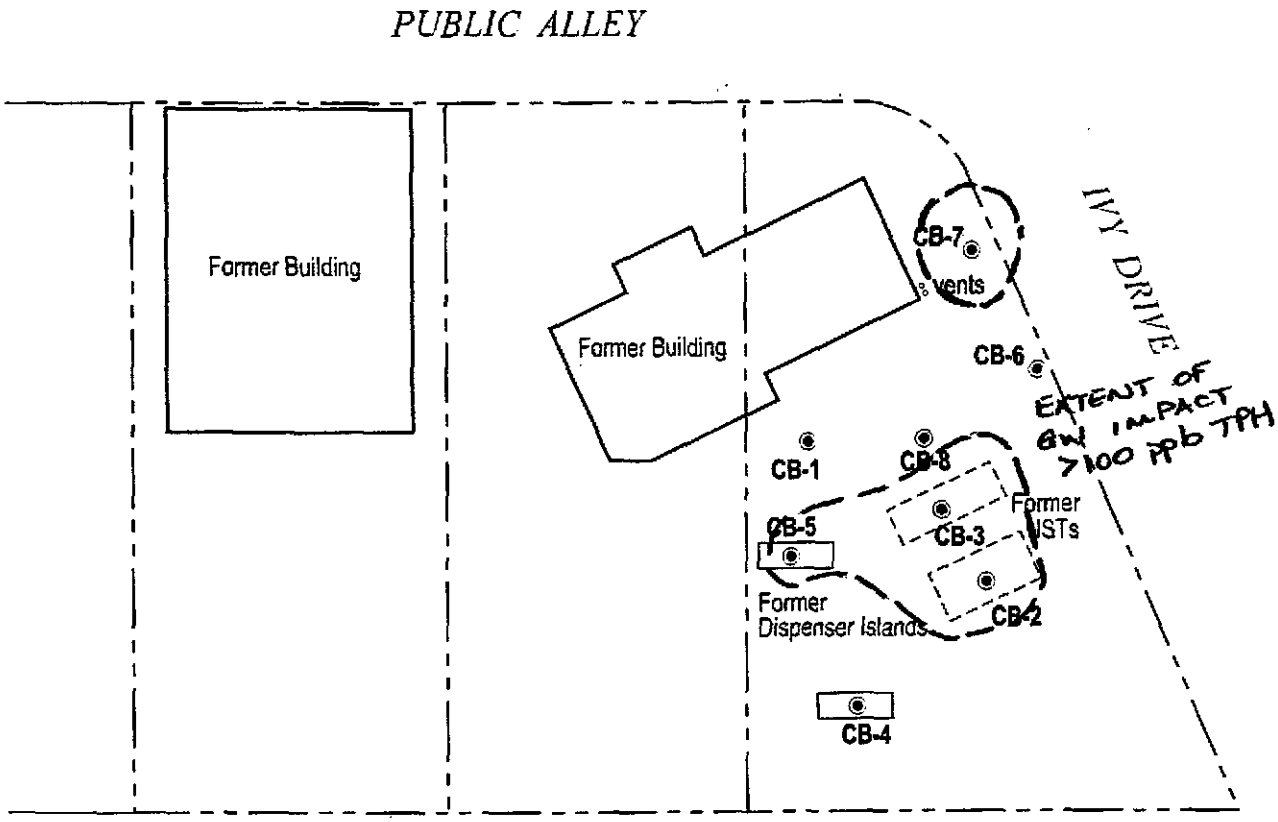
H:\CLARK MENLO PARK\FIGURES\BOR-LOG.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map

EXTENT OF SOIL IMPAC



EXPLANATION

CB-1 ◉ Soil boring location

0 15 30

Scale (ft)

FIGURE 3

H:\CLARK MENLO PARK\FIGURES\SOR-LOC.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map

EXTENT OF GW IMPACT

SAN MATEO COUNTY CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANKS PROGRAM

I. AGENCY INFORMATION

455 County Center, Redwood City, CA 94063
County Project Manager: Gregory J. Smith
Title: Haz-Mat Specialist
Telephone Number: 650-599-1679

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Proper screened interval? *NA*
Highest GW depth BGS: *NA*
Flow Direction: *north (based on regional and nearby sites)*
Most sensitive GW use: *potential agricultural as specified in Basin Plan*
Are Drinking Water affected? *No* Aquifer Name:
Is Surface Water Affected? *No* Nearest/Affected SW: *SF Bay*
Off-Site Beneficial use Impacts (Location): *None*
Report(s) on File? *Yes* Where is it filed? *SMCo*

Treatment and Disposal of Affected Material

Material	*Amount (Include units)*	*Treatment or disposal*	*Date*
3 tanks as listed above	Various, see above	Unknown	1978

Maximum Documented Contaminant Concentrations - Before and After Cleanup

	SOIL (PPM)		GROUNDWATER (PPB)	
Contaminant	*Before*	*After*	*Before*	*After*
TPH-gasoline	NA	180	NA	910
TPH-diesel	NA	140	NA	3500*
MtBE	NA	<0.2	NA	<5
Benzene	NA	<0.01	NA	<0.5
Toluene	NA	0.051	NA	0.92
Ethylbenzene	NA	<0.02	NA	3.4
Xylenes	NA	0.059	NA	2.7

*analytical notes that gasoline is significant, abundant sediment in sample, and fuel is highly weathered. No silica gel cleanup was performed.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? *Yes*
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? *Yes*
Does corrective action protect public health for current land use? *Yes*
Site Management Requirements: *Building department notification, see below*
Should corrective action be reviewed if land use changes? *No*
Monitoring Wells to be Decommissioned? *0* Number Decommissioned: Number Retained:
List Enforcement Actions Taken: *None*
List Enforcement Action Rescinded: *None*

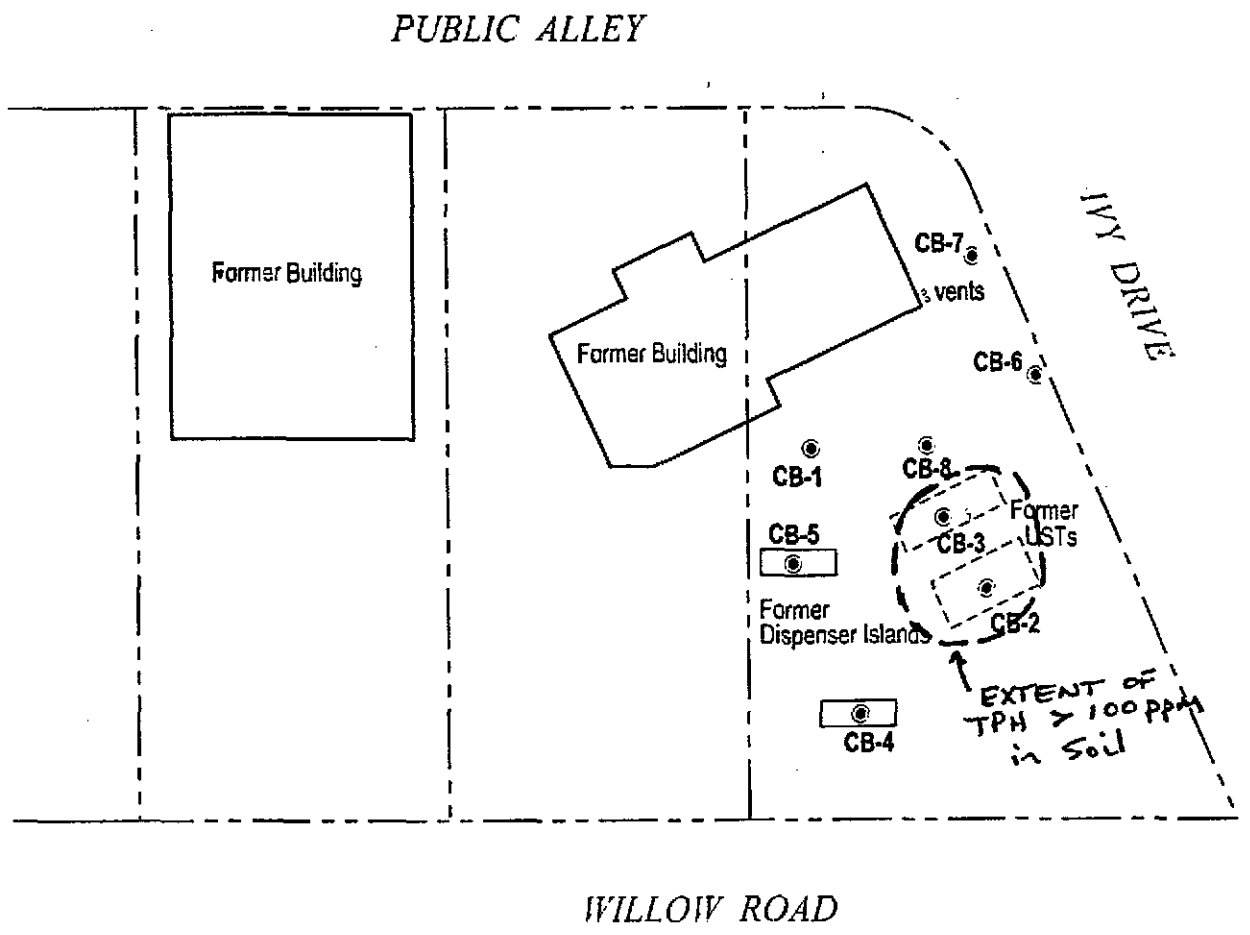
V. RWQCB Notification

Date Submitted to RB: 6/8/00	*RB Response:* Verbal approval 6/8/00
RB Staff: Nancy Katz	*Title:*

Notes:
City of Menlo Park Building Department sent letter stating that should excavation or development of the property be proposed, the San Mateo County Environmental Health Division will be notified to ensure proper disposal or handling of contaminated soils. The volume of residual petroleum hydrocarbons in soil at concentrations greater than 100 ppm is estimated to be less than 20 cubic yards. Please refer to Figure 2 for details delineating the extent of remaining soil contamination. Should any change in use of the property or development of the subject site occur which may impact these soils or groundwater, City Building Departments must notify the Environmental Health Division for approval pursuant to Government Code Section 65850.2.2.

Dean D. Peterson, Director, Environmental Health

6/14/00
Date



EXPLANATION

CB-1 ◉ Soil boring location

0 15 30

Scale (ft)

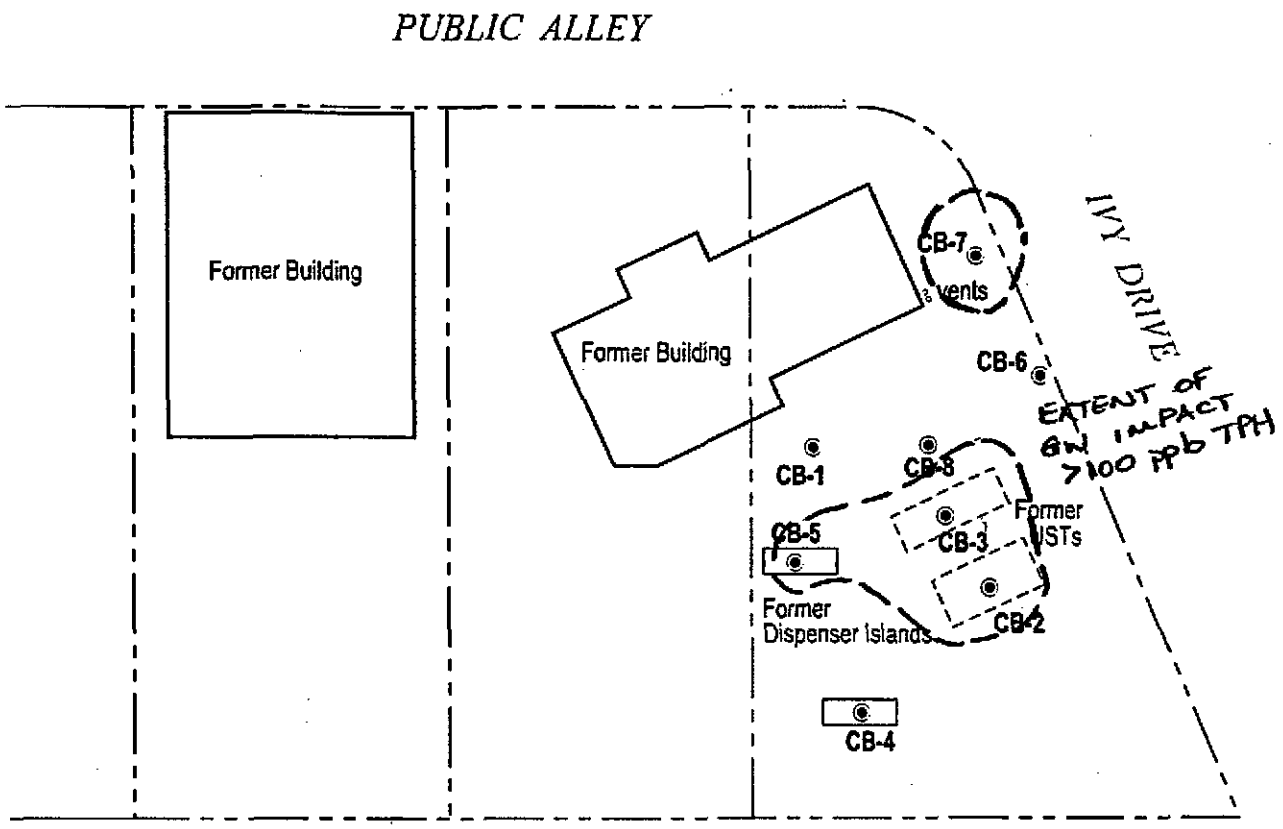
FIGURE **2**

H:\CLARK MENLO PARK\FIGURES\BOR-LOC.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map
EXTENT OF SOIL IMPAC



EXPLANATION

CB-1 ◉ Soil boring location

0 15 30

Scale (ft)

FIGURE 3

H:\CLARK MENLO PARK\FIGURES\BORHLOC.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map

EXTENT OF GW IMPACT

HEALTH SERVICES AGENCY

June 14, 2000

Beverly Beasley
City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025

SMCo Site# 440061

SUBJECT: CASE CLOSURE OF ONE 4000-GALLON GASOLINE, ONE 6000-GALLON GASOLINE AND ONE 280-GALLON WASTE OIL UST AT 1283 WILLOW ROAD (AKA 1224 CARLTON AVENUE), MENLO PARK, CALIFORNIA

Dear Ms. Beasley:

The enclosed case closure letter is a result of intensive review by San Mateo County Groundwater Protection Program (GPP) staff with concurrence from Regional Water Quality Control Board staff. San Mateo GPP staff have determined that the water-quality objectives established by San Francisco Bay Regional Water Quality Control Board have been satisfied. However, contaminated groundwater and less than 20 cubic yards of contaminated soil remain in the subsurface at the site, as shown on the enclosed maps. Should any change in use of the listed properties, or development of the subject properties, occur which may impact site soil or groundwater, notification must be made to this office for approval.

County oversight costs for management of contaminated soil or groundwater will be billed directly to the current property owners.

Should you have questions, please call me at (650) 599-1679. Thank you for your cooperation.

Sincerely,

Gregory J. Smith, R.G.
Hazardous Materials Specialist
Groundwater Protection Program

enclosure

Ms. Gail Lee,
San Mateo County Environmental Health Department

Re: Proposed Well Survey Radius
1283-1291 Willow Road,
Menlo Park, California,

As required by the San Mateo County Groundwater Protection Program Corrective Action Guidelines, Policies and Procedures, Cambria is submitting the following rationale to support our proposed well survey radius for the above referenced site. The regulations require that a seepage velocity be calculated using the equation Vs = Ki/Ne.

The following resources were used to determine the values used in the Seepage Velocity (Vs) equation: 1) Since there are no wells onsite, or nearby cases with comparable data, the hydraulic gradient of 0.0028 ft/ft was determined based on information in a Phase I Environmental Site Assessment completed for the referenced site by CET of Emeryville, CA on April 28, 1995. 2) The soil types encountered near the capillary fringe during Cambria's August 23, 1999 Phase II Assessment were silty sands with a hydraulic conductivity likely ranging from .01-1 cm/sec. However the site subsurface lithology also consists of varying clays, silts, silty sands, and sandy silts layers. We used an estimated hydraulic conductivity of 0.1 cm/sec for silty sands, which is very conservative, because of likely finer grained low permeability soils existing in the saturated zone; 3) The effective porosity value of 0.28 was used for loamy sand based on numerous professional references.

Using these assumed values we calculated a seepage velocity for the site below.

Vs = seepage velocity
Vs = Ki/Ne
=(0.1)(0.0028)/(0.28)
= 0.001 cm/sec
= 1034 ft/year

However, since a regulatory accepted degradation rate for TPHd has not been promulgated, this seepage velocity is likely greatly exaggerated.

The data collected during our April 23, 1999 investigation indicates that the actual seepage velocity is much slower. Our data demonstrates that TPHg has attenuated from 910 ppb to ND in 40 feet, and that TPHd has attenuated from 3,500 ppb to 630 ppb in 40 feet. Assuming that the hydrocarbons have only traveled 40 feet in the 22 years since the tanks were removed in 1978, the actual seepage velocity is 1.8 ft/year not 1034 ft/year. In addition, the hydrocarbons detected were in grab a groundwater samples and, would likely be as much as a magnitude lower if the sample had been collected from a permanent monitoring well.

These results indicate that the gasoline-range hydrocarbons detected in the former UST area have not migrated significantly downgradient, and have naturally attenuated beneath the site since the UST removal in 1978.

In addition, based on a linear relationship using concentrations and distance, TPHd concentrations have decreased from 3,500 ppb to 630 ppb in 40 feet. This results in a change of 2470 ppb over 40 feet or a

decrease in concentration of 74 ppb/ft. Assuming this linear relationship, an additional distance of 8.5 feet should decrease the 630 ppb TPHd concentration to below detection limits.

Therefore, we recommend completing a 1,000 feet radius well survey as a conservative measure, as the actual extent of impact is likely 49 feet.

We hope our rationale meets the Groundwater Protection Program Well Survey requirements, please call me with any comments or questions at (510) 420-3340 regarding this rationale.

Sincerely,

John Riggi
Geologist

3/20/00 Agreed to 700 ft as original extent calculated for one year. (Radius of survey)

OUT OF INVESTING IDEAS?
Click here! DLJdirect

Read Message [Inbox]

Subject: Proposed Well Survey Radius Show brief headers | Show all headers
From: John Riggi Add to Address Book
Date: March 16, 2000 6:07:42 PM EST
To: gdlee@email.com Add to Address Book
CC:
Attachments: SMCHCSA_Well Survey.doc (78.7k)

Gail,

Attached is the document with our proposed well survey radius proposal for the Property located at 1283-1291 Willow Road in Menlo Park.

John A. Riggi
Geologist
Cambria Environmental Technology Inc.
1144 65th Street, Suite. E
Oakland, California 94608
(510)-420-3340

Search
E-mail Lookup - Maps
White Pages - Yellow Pages
Create an E-card
Send a Voice Greeting
Check your Calendar

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FAX - 650-599-1071

To San Mateo County Dept. of Health
455 County Center, Redwood City, 94063
Attn Greg Smith.

From: Michael Clark
1355 Wayne Rd. Hillsborough 94010

Re: 1283-1291 Willow Road
Menlo Park, Calif.

Jan 31, 2000

Greg

Re our telecon this AM. - The three owners of subject property are:

Lenore Isaacson - 20561 Sevilla Lane
Saratoga, CA 95070

Beverlee White - 22934 Long Down Road
Cupertino, CA 95014

Michael Clark - 1355 Wayne Road
Hillsborough, CA 94010

Above is in reference to Cambria Environmental "Subsurface Report" dated October 8, 1999.

Thank You

Michael Clark
650-3470919
Fax 650-3470985

HEALTH SERVICES AGENCY

February 22, 2000

Michael Clark
1355 Hayne Road
Hillsborough, CA 94010

SMCo Site# 440061

SUBJECT: SITE STATUS, CLARKE PROPERTY, 1283 WILLOW ROAD, MENLO PARK, CALIFORNIA

Dear Mr. Clark:

Thank you for your cooperation in reporting the analytical results from sampling associated with potentially impacted soil and groundwater at the subject site. Based on the submitted analytical results, it appears that soil and groundwater beneath the site are impacted by fuel constituents. Therefore, the case has been transferred to the County's Groundwater Protection Program. Based on a confirmed release at the site, we are required to list the site as a fuel release site. However, residual concentrations of fuel constituents in soil and groundwater appear to qualify for case closure as a low-risk site according to State guidance.

I have prepared a case summary recommending closure. After being processed at the County, the recommendation will be forwarded to the RWQCB for concurrence. It is anticipated that this process will take at least 30 days. Should you have any questions, please call me at (650) 599-1679.

Sincerely,

Gregory J. Smith, R.G.
Hazardous Materials Specialist
Groundwater Protection Program

PUBLIC HEALTH AND ENVIRONMENTAL PROTECTION DIVISION

Board of Supervisors: *Rose Jacobs Gibson • Richard S. Gordon • Mary Griffin • Jerry Hill • Michael D. Nevin* • **Health Services Director:** Margaret Taylor

455 County Center • Redwood City, CA 94063 • PHONE 650.363.4305 • TDD 650.373.3206 • FAX 650.363.7882
http://www.health.co.san-mateo.ca.us

HEALTH SERVICES AGENCY

February 17, 2000

CERTIFIED MAIL
Z 273 907 356
SMCo SITE:#440061

Michael Clark
1355 Hayne Rd
Hillsborough, CA 94010

SUBJECT: CLARK PROPERTY, 1283 WILLOW ROAD, MENLO PARK, CALIFORNIA

Dear Michael Clark,

Our files identify your company as a discharger, or potential discharger, of waste to waters and/or soil of the State as the result of petroleum product leaks from underground tanks at facilities it owns, operates, or for which it is liable. This letter is intended to clarify your responsibilities for reporting, investigating, and conducting cleanup of such discharges.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) is responsible for oversight of soil and ground water pollution cases which threaten or impact waters of the State. However, due to the large number of fuel leak cases reported, the RWQCB Staff is not able to respond to each incident. Therefore, the San Mateo Groundwater Protection Program (GPP) is the lead agency for case-handling. Regardless of the level of oversight from agencies, you are responsible for the timely reporting, investigation, and cleanup of soil and ground water pollution such that the beneficial uses of waters of the State are protected, and in compliance with appropriate policies. Please see the enclosed notice of responsibility.

Investigations and Cleanup Responsibilities

The subject underground tank leak case has been reported as your responsibility. The following steps are the minimum required for addressing your site.

1. Determine the lateral and vertical extent of soil and ground water pollution.

2. Assess the local and regional hydrogeology as appropriate to evaluate actual or potential impacts of contamination to beneficial uses of surface and/or ground water.

3. Evaluate and implement appropriate remedial action alternatives which may include risk assessment.

Z 273 907 356

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to
MICHAEL CLARK

Street & Number
1355 HAYNE RD

Post Office, State, & ZIP Code
HILLSBOROUGH, 94010

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$

Postmark or Date

FEB 2 9 2000

PS Form **3800**, April 1995

4. Remove all floating or free product. Dissolved constituents and contaminated soil should be remediated consistent with State Water Resources Control Board Resolution No.68-16.

Reporting Responsibilities

You are responsible for reporting to this office as follows:

1. Submittal of individual technical reports, for the site, detailing all investigative and remedial actions associated with the site. These reports shall be submitted on a quarterly basis, unless more frequent reports are requested by this office or the RWQCB. These reports shall be submitted until such time as the case is closed by GPP and the RWQCB.

2. A summary report shall be submitted on a quarterly basis and include the following information, at a minimum.

   a. Site name, address, city and county site number.

   b. A brief background history of the investigation and remedial actions.

   c. A chronological listing of actions that were taken regarding investigation and remediation during the previous quarter.

   d. A listing, with scheduled dates, of actions planned for the next quarter.

   e. Status on the characterization of soil pollution, free product, and dissolved constituents.

   f. Status on remediation of soil pollution, free product, and dissolved constituents. This shall include a report of the gallons of product recovered, and a calculation for the amount of product recovered from dissolved phase removal and/or vapor extraction.

The first quarterly summary report shall be submitted thirty (30) calendar days from the postmarked date of this letter, and quarterly thereafter.

All proposals and reports which contain engineering or geological information, interpretations, or other opinions as specified by The Business and Professions Code, must be signed **AND STAMPED** by an appropriately registered professional. In general, all reports on investigation and remediation require this type of signature.

All proposals and reports submitted to us must be accompanied by a cover letter signed by an officer or legally authorized representative of your company which states at a minimum:

> **"I declare under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct."**

You are required to submit the above reports pursuant to Section 13267(b) of the **California Water Code.** Failure to comply may subject you to the imposition of administrative civil liabilities by the Regional Board or the District Attorneys Office of up to one thousand dollars ($1,000) per day of non-compliance.

Two (2) additional enclosures are included:

- A partial resource list of consultants that may assist you in meeting the above requirements.
- A brief informational packet discussing possible state monies available to you.

Thank you for your cooperation in this matter. Please contact me within 15 days of the postmarked date of this letter at (650) 599-1679 to further discuss your case and answer any questions.

Sincerely,

Gregory J. Smith, R.G.
Hazardous Materials Specialist
Groundwater Protection Program

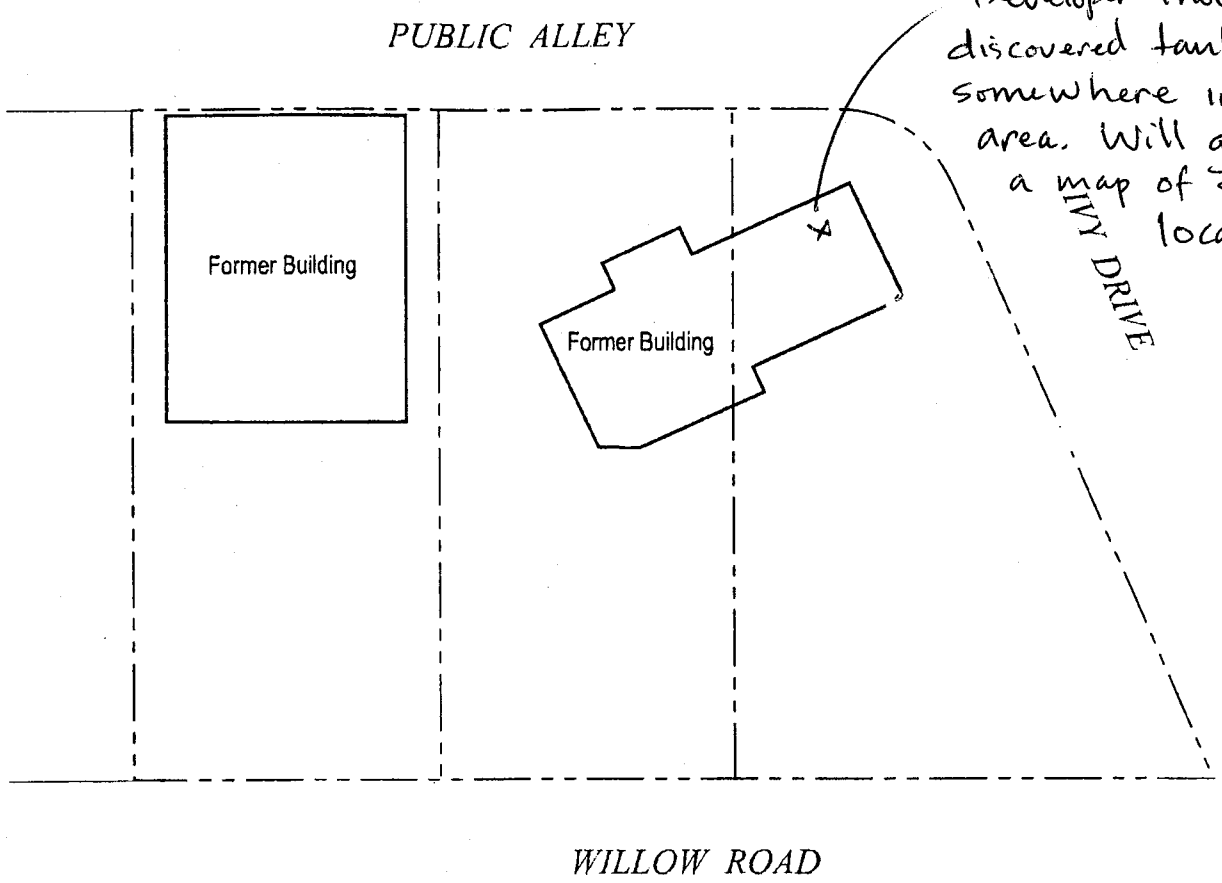
GJS/kc

Enclosures

cc: Anders Lundgren, RWQCB, 1515 Clay St, Ste 1400, Oakland, CA
Lori Casias, SWRCB, P.O.Box 944212, Sacramento, CA

07/15/09

MEETING W/ PETE, GARY, AND JOHN
4-8-08



Developer thought discovered tank was somewhere in this area. Will get us a map of surveyed location.

H:\CLARK MENLO PARK\FIGURES\SITEPLAN.DWG

VB

GARY MOISEFF
VICE PRESIDENT

VANCE BROWN
BUILDERS
3197 PARK BOULEVARD
PALO ALTO
CA 94306-2233
PHONE 650 849 9900
CEL 415 860 6174
FAX 650 849 9912
gary.moseff@vancebrown.com

N

0 15 30
Scale (ft)

FIGURE
1

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

CRC CLOSURE CHECKLIST (10/98)

Site Name Clark Property

Site Address 1283 Willow, MP

Site ID#/Record ID# 440061 / 1819

☑ Closure checklist review signatures

	Staff	Lead	Prog Manager
Initials			
Date	2/22/00 5/18/00	6/7/00	6/13/00

☒ DRAFT Closure summary to RWB for 30 day review (no review period for Soil Only Cases) JUNE '8

Notification to impacted property owners Verbal 6/7/00 Nancy

After 30 day review:

☐ Well destruction/soil disposal letter w/ draft BZ letter No Wells

After well destruction /soil disposal documentation submitted:

☒ Closure letter for BZ signature to sign attached to summary and map

☐ Send cover letter to RP/Bldg Dept for:

- ~~UST abandonment in place~~
- ☒ amount contaminated soil left in place
- ☒ site map with soil/gw locations

	RP	Site file	RWB	Cleanup Fund	corr file	City Bldg Dpt
closure letter	x	x	x	x	x	x
closure memo		x				
closure summary + map	x	x	x	x	x	
BldgDept letter+map	x	x			x	x

SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH SERVICES DIVISION

PERMIT NO. XXXXXXXXXXX 03270
MW-045-95

ENVIRONMENTAL HEALTH PERMIT

FEE CATEGORY 2010 SOIL BORINGS/VADOSE/VAPOR/MONITORING WELLS

ORDINANCE NO. 03101

DATE ISSUED 05/30/95 EXP. DATE 08/30/95 ISSUED BY: G.LEE

ENVIRONMENTAL HEALTH SPECIALIST

ISSUED TO

OWNER:
WORLD DISTRIBURION
5464 CLEVELAND PL
FREMONT 94538

CONTRACTOR:
PRECISION SAMPLING INC
47 LOUISE ST
SAN RAFAEL 94901

CONSULTANT: CET ENVIRONMETAL SERVICES

APN/CN 062-103-060 CT AMOUNT PAID:

TERMS AND CONDITIONS:
CONSTRUCT SOIL BORINGS (7)

LOCATION: 1291 WILLOW RD, MENLO PARK

THIS PERMIT IS NONTRANSFERABLE AND MUST BE ON SITE.

MAY-28-0300 12:16 FROM CET EMERYVILLE T-48 14159991871 P.03

SUBSURFACE DRILLING APPLICATION

ENVIRONMENTAL HEALTH DIVISION
SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
COUNTY GOVERNMENT CENTER
590 HAMILTON STREET
REDWOOD CITY, CA 94063
(415) 363-4305

DATE ISSUED: MAY 30 1995
PERMIT NO.: MW-095-95
FEE: $242.00
RECEIPT NO: 604
ASSIGNED TO: G. Lee

000072

ALLOW A MINIMUM OF FIVE DAYS FOR PROCESSING

PURPOSE OF APPLICATION: ☐ Monitoring Well Installation ☐ Monitoring Well Destruction ☐ Groundwater Extraction ☒ Soil Boring ☐ Vapor Extraction ☐ Vadose

No. of Wells ____ No. of Borings 7

Well/Boring Location Address: Intersection of Willow Rd. and Ivy Dr. (formerly 1283 and 1291 Willow Rd) City Menlo Park

~~Well #(s)~~ Borings SB-1 to SB-7 Assessor's Parcel No.: 062-103-060

Property Owner
Name: Michael Clark
Address: P.O. Box 2353 City, State, Zip Sunnyvale, CA. 94087
Telephone No.: ____

~~Well Owner~~ (if different than property owner) Soil Borings only
Name: World Distribution Wholesalers
Address: 5464 Cleveland Place City, State, Zip Fremont, CA 94538
Telephone No.: (510) 656-2725

Drilling Company
Name: Precision Sampling, Inc.
Address: 47 Louise St. City State, Zip San Rafael, CA. 94901
Telephone No.: (415) 456-9875 Driller's License No.: C57-636387

Consultant
Name: CET Environmental Services, Inc.
Address: 5845 Doyle St., Ste 104 City, State, Zip Emeryville, CA. 94608
Telephone No.: (510) 652-7001 Contact: Benjamin Berman
(510) 652-7002

See attached

Signature of Responsible Professional ____ Registration or Certification No. of RG/PE/CEG ____

Depth of Proposed ~~Wells~~/Borings: 6-2-95 Drilling Method: Precision Sampling hydraulic punch/hammer

Purpose of Drilling: ☐ County LUFT Requirements ☒ Exploration Studies (PSA) ☐ Title 22 Requirements ☐ Other ____

Soil borings only

~~Well is to be~~ constructed in: ☐ A Public Sidewalk ☐ A Roadway ☐ Public Property ☒ Private Property ☐ Refuse

Well Information: Well Diameter Slot Size ____
Gravel Pack Size ____ Est Screen Interval Depth ____
Development Method (proposed) ____
Planned Drilling Date 6-2-95 (72-hour notification is required to County)

Certification by Well Owner/Agent and Driller/Agent:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the San Mateo County Ordinance and the State Water Well Standards. It is my responsibility as the well owner/agent to notify the County of any changes in the purpose of this well from that which is indicated on this application form.

B. Be 5-24-95 (Precision Sampling)
Well Owner/Agent Date ☒

I certify that in the performance of the work for which this permit is being issued, I shall not employ any person in any manner so as to become subject to the Workmen's Compensation laws of California.

Benjamin Berman, CET
B. Be 5-24-95
Driller/Agent Date ☐

I certify that I have a valid Workmen's Compensation Coverage.

SUBSURFACE DRILLING APPLICATION

Upon review of the information on this application and submitted workplan and subject to approval noted below, a permit will be issued allowing owner/agent driller/agent to construct the described well. Permission to mobilize may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

In addition to the well location map included in the workplan, attach a copy to the permit. The well location map shall include the following:

1. Sketch well location to scale, show dimension to nearest foot
2. Show a minimum of two dimensions at right angles. Dimensions shall be from the centerline of the closest named street and or property lines. These dimensions may be estimated and subsequently finalized in the report of findings.
3. North Arrow, existing site features, existing wells and any other pertinent information.

GENERAL CONDITIONS:

A. Construction under this permit is subject to any instructions by a Health Department representative relative to the "Standards for the Construction of Wells in San Mateo County" and the State Water Well Standards.

B. Permit may be voided before work begins if field check reveals any misrepresentation under "well location" of the submitted workplan.

C. The permit is valid only for the purpose specified herein. No change in construction procedure as prescribed in the workplan and in the special conditions below will be allowed except upon written permission of the County.

D. Permittee shall assume entire responsibility for all activities and uses under the permit and shall indemnify, defend and save the County of San Mateo, its' officers, agents and employees free and harmless from any and all expense, cost or liability in connection with or resulting from the exercise of the permit including, but not limited to property damage, personal injury and wrongful death.

E. The wells may not be used for domestic water supplies unless separately approved by the Office of Environmental Health.

F. Permit will be automatically canceled if not exercised or if an extension is not requested by Permittee with 90 calendar days of above date.

G. Driller is to complete State DWR Form 188 and mail original to San Mateo County Environmental Health within 30 days of completion of well construction.

H. For the construction of water producing wells a Permittee must be a licensed water well drilling contractor unless the work is to be done by the landowner or employees of the landowner. (See Business & Professions Code 7026.3, 7028).

I. Dry holes and/or soil borings must be grouted within one week of drilling.

J. Well destruction shall be done in accordance with State and County Standards.

K. All workplans and reports need to conform to County LUFT Enforcement guidelines as well as Regional Water Quality Control Board guidelines and the State Water Well Standards.

L. If contamination is discovered, verbal notification to the county is required within 48 hours. A written report is required within 30 days.

SPECIAL CONDITIONS:

All monitoring wells are to be surveyed to Mean Sea Level Datum.

Approved: _____ Date: 5/31/95

SUBSURFACE DRILLING APPLICATION

ENVIRONMENTAL HEALTH DIVISION
SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
COUNTY GOVERNMENT CENTER
590 HAMILTON STREET
REDWOOD CITY, CA 94063
(415) 363-4305

DATE ISSUED: ________
PERMIT NO.: ________
FEE: ________
RECEIPT NO: ________
ASSIGNED TO: ________

ALLOW A MINIMUM OF FIVE DAYS FOR PROCESSING

PURPOSE OF APPLICATION: ☐ Monitoring Well Installation ☐ Monitoring Well Destruction ☐ Groundwater Extraction ☒ Soil Boring ☐ Vapor Extraction ☐ Various

No. of Wells ____ No. of Borings #7

Well/Boring Location: Intersection of Willow Rd. and Ivy Dr. (formerly 1283 and 1291 Willow Rd.)
Address: 1291 Willow Rd. City Menlo Park
Well-ID(s) Borings SB-1 to SB-7 Assessor's Parcel No.: 062-103-060

Property Owner
Name: ________
Address: ________ City, State, Zip ________
Telephone No.: ________

~~Well Owner~~ (if different than property owner) Soil Borings only
Name: World Distribution Wholesalers
Address: 5464 Cleveland Place City, State, Zip Fremont, CA 94538
Telephone No.: (510) 656-2725

Drilling Company
Name: Precision Sampling, Inc.
Address: 47 Louise St. City, State, Zip San Rafael, CA 94901
Telephone No.: (415) 456-9875 Driller's License No.: C57-636387

Consultant
Name: CET Environmental Services, Inc.
Address: 5895 Doyle St., Ste 104 City, State, Zip Emeryville, CA 94608
Telephone No.: (510) 652-7001 Contact: Benjamin Berman

Michael Chavez, P.E., REA — C-48497
Signature of Responsible Professional — Registration or Certification No. of RG/RCE/CEG

Depth of Proposed Well/Borings: 6-2-95 Drilling Method: Precision Sampling hydraulic punch/hammer

Purpose of Drilling: ☐ County LUFT Requirements ☐ Title 22 Requirements ☒ Exploration Boring (PSA) ☐ Other ________
Soil borings only

Well is to be constructed in: ☐ A Public Sidewalk ☐ A Roadway ☐ Public Property ☒ Private Property ☐ Refinery

Well Information:
Well Diameter Size: ________
Gravel Pack Size: ________
Ext. Screen / Interval Depth: ________
Development Method (proposed): ________
Planned Drilling Date: 6-2-95 (72-hour notification is required to County)

Certification by Well Owner/Agent and Driller/Agent:
I certify that the information given above is correct to the best of my knowledge. I certify that the work will be done in compliance with the conditions of this permit, the San Mateo County Ordinance and the State Water Well Standards. It is my responsibility as the well owner/agent to notify the County of any changes in the purpose of this well from that which is indicated on this application form.

B. B. 5-24-95 (Precision Sampling)
Well Owner(Agent) Date ☒ I certify that in the performance of the work for which this permit is being issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation laws of California.

Benjamin Berman, CET
B. B. 5-24-95
Driller(Agent) Date ☐ I certify that I have a valid Workers' Compensation Coverage.

Approved pending check 5/30/95 [signature]

CET proposes that the following tasks be performed within the scope of the Phase II ESA:

TASK 1: Obtain Subject Property Plans

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TASK 2: Perform an Underground Structure Sweep of the Subject Property

The purpose of this Task is to attempt to identify if any metallic USTs, buried pipes or structures exist in the subsurface of the subject property. A systematic electromagnetic survey of the subject property will be performed in an attempt to identify such structures. Particular attention will be paid to the locations of USTs indicated in the plans obtained under Task 1. Prior to this survey, *the debris presently stockpiled at the subject property should be removed* by the Willow Road improvements contractor who has placed this debris. The extent of any identified objects will be marked in the field, and pot-holing will be performed by hand to attempt to confirm a buried object and establish its depth.

Task 3: Collect and Selectively Analyze Physical Samples of Groundwater and Soil

Physical samples of groundwater and soil will be obtained from the seven approximate boring locations shown on the attached Historic Site Plan of the subject property in order to establish the presence or absence of selected compounds at the sampled locations. At each location, temporary boring will be constructed by Precision Sampling, according to the protocol described in their attached procedures. A permit for this activity will be obtained from the San Mateo County Department of Environmental Health. Soils from each boring will be logged for lithology, and screened, using visual indications and field organic vapor measurements, for indications of contamination.

The total depth of each boring will be to the first encountered permeable zone below the water table (anticipated to be within 8 feet of the surface) or 15 feet, whichever is shallower. At each location a single soil sample from above the water table, selected by the screening methods described above or in the absence of indicators at the air water interface, will be retained for possible future analysis. Once a boring's total depth is reached it will be temporarily completed as a piezometer well in the manner described in the attached procedures. The elevation of the top of the temporary casing will be surveyed relative to a site bench mark, and a depth to water will be measured in order to determine the groundwater's relative elevation among the seven locations. A groundwater sample will then be collected from each location. Assuming sufficient water can be sampled, groundwater samples from each location will be analyzed.

The hazardous substances and petroleum compounds which would be tested in samples, and the analytical methods which would be applied to determine their concentrations in physical samples, based on recommendations found in the California Regional Water Quality Control Board, San Francisco Bay Region's (RWQCB's) "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" are as follows:

Total Petroleum Hydrocarbons as gasoline (TPHg)	EPA Method 5030/8015
Total Petroleum Hydrocarbons as diesel (TPHd)	EPA Method 3510/8015
Total Oil and Grease (TOG)	Standard Method 5520
Benzene, toluene, ethylbenzene, and xylenes (BTEX)	EPA Method 8020
Chlorinated solvents (VOCs)	EPA Method 8010
Semi-volatile organic compounds (SVOCs)	EPA Method 8270
Total Lead (Lead)	EPA Method 6010
Cadmium, Chromium, Lead, Nickel and Zinc (Metals)	EPA Method 6010

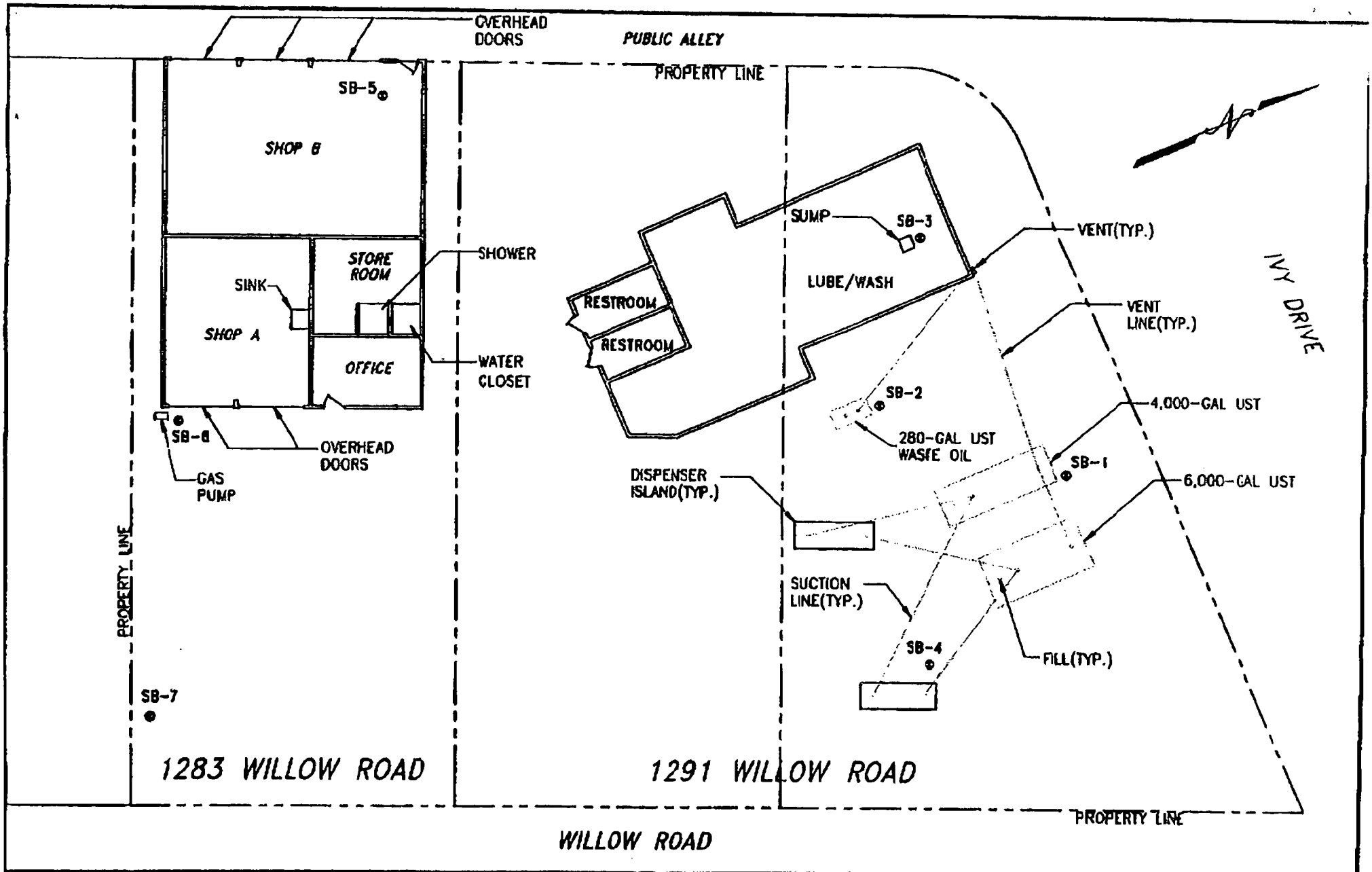
Not all analyses are recommended for each location. For suspected fuel locations; TPHg, TPHd, BTEX, and Lead will be analyzed (collectively referred to here as the Fuels Suite.) For suspected waste oil locations; TPHg, TPHd, TOG, BTEX, VOCs, SVOCs and Metals will be analyzed (collectively referred to here as the Waste Oil Suite.) Groundwater analyses will be performed on a 10-day turnaround basis for results.

The seven boring location are approximately shown on the attached figure. The rational and suite of analyses which will be run on samples from these locations are listed below:

Boring Number	Rationale for Location Selection	Analysis Suite
SB-1	Former fuel USTs location, 1291 Willow Road	Fuels Suite
SB-2	Former waste oil UST location, 1291 Willow Road	Waste Oil Suite
SB-3	Former auto repair shop area, 1291 Willow Road	Waste Oil Suite
SB-4	Former fuel dispenser island area, 1291 Willow Road	Fuels Suite
SB-5	Former auto repair shop area, 1283 Willow Road	Waste Oil Suite
SB-6	Former fuel dispenser area, 1283 Willow Road	Fuels Suite
SB-7	Assess upgradient conditions, 1283 Willow Road	Waste Oil Suite

TASK 4: Prepare a Phase II ESA Report of Findings of the Above Tasks

CET will prepare a report of findings of the Phase II investigation. The report will include figures of the locations of detected underground structures, the locations and logs of borings performed, and the results of analytical testing, including copies of the laboratory reports and chain-of-custody documentation. In the event USTs and/or results indicating environmental impacts from hazardous substances or petroleum hydrocarbons to the subject property are found, CET will recommend a course of action in this report.



LEGEND

⊕ SB-7 PROPOSED BORING LOCATION

SCALE: FEET 0 20 FEET

CET Environmental Services, Inc.

PROPOSED BORING LOCATIONS AND HISTORIC SITE PLAN (CIRCA 1956-1979)

SOURCE: CITY OF MENLO PARK BUILDING DEPARTMENT RECORDS

1283-1291 WILLOW ROAD

MENLO PARK, CALIFORNIA

JOB NUMBER	DATE	DRAWN	BY	REVISED
3686	05/95	PROPOSAL	LONG	05/01

FIGURE 1

FACSIMILE TRANSMITTAL COVER SHEET

CET ENVIRONMENTAL SERVICES, INC.
5845 Doyle Street, Suite 104
Emeryville, California 94608
(510) 652-7001 FAX: (510) 652-7002

DATE: 5-30-95

FAX NO: (415) 599-1071

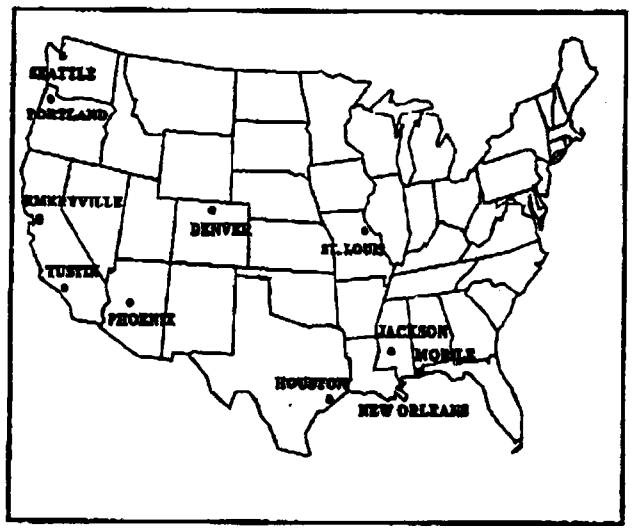
ATTN: Gail Lee

CO. NAME: San Mateo County

FROM: Benjamin Berman

RE: Drilling Permits

PAGES: 7
(including cover)



COMMENTS:

Gail, I thought this went out last week, however the hard copies are being mailed today. Drilling is scheduled for this Friday (Soil Boring only, Precision Sampling). You should be recieving a check from our Modesto office (might be addressed to Kathy Chavez or Michele Steemaker). Please call if there are any problems with this Friday.

The information contained in this facsimile may be confidential, proprietary, and/or legally privileged information intended only for the use of the individual or entity named above. If the reader of this facsimile is not the intended recipient, you are hereby notified that any copying, dissemination or distribution of confidential, proprietary or privileged information is strictly prohibited. If you have received this communication in error, please immediately notify the sender by telephone, and we will arrange for the return of this facsimile.

CET Environmental Services, Inc.
5845 Doyle Street, Suite 104
Emeryville, CA 94608
Tel. (510) 652-7001
Fax. (510) 652-7002

LETTER OF TRANSMITTAL

DATE: May 30, 1995

TO: Kathy Chavez
San Mateo County Department of Health Services
County Office Building
590 Hamilton Street
Redwood City, CA 94063

FROM: Benjamin Berman
Staff Scientist

RE: Drilling Application for Vacant Property
Southwest Corner of Willow Road and Ivy Drive
Menlo Park, CA

CET Project No.: 3692-001

Transmitted herewith:

Drilling application along with description of work and drilling location map. As per my May 24, 1995 telephone conversation with Michele Shoemaker, the field work is scheduled for Friday, June 2, 1995.

You will be receiving a check for $242 from our corporate office (Tustin, California) to cover the application fee.

Please call me or Aaron Stessman if you have any questions or comments regarding the scheduled field work.

Thank you.

CET ENVIRONMENTAL SERVICES, INC.

GENERAL ACCOUNT

OUR REF. NO.	YOUR INVOICE NO.	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK
	DRILLING					$242.00

60467

CET ENVIRONMENTAL SERVICES, INC.
GENERAL ACCOUNT
14761 BENTLEY CIRCLE
TUSTIN, CA 92680

COMERICA BANK-CALIFORNIA
COSTA MESA, CA 92626
90-3752-1211

60

DATE	CONTROL NO.	AMOUNT
5-25-95	60467	$242.00

PAY TO THE ORDER OF *** TWO HUNDRED FORTY TWO DOLLARS AND ZERO CENTS ***

SAN MATEO COUNTY
COUNTY OFFICE BUILDING
590 HAMILTON ST.
REDWOOD CITY, CA. 94063

Steven H. Dean
Kathleen V. Dunlop

⑈060467⑈ ⑆121137522⑆ 8581⑈00107⑈3⑈

SUBSURFACE DRILLING APPLICATION

ENVIRONMENTAL HEALTH DIVISION
SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
COUNTY GOVERNMENT CENTER
590 HAMILTON STREET
REDWOOD CITY, CA 94063
(415) 363-4305

SAN MATEO COUNTY ENVIRONMENTAL HEALTH
MAY 31 1995
RECEIVED

DATE ISSUED: _____
PERMIT NO.: _____
FEE: _____
RECEIPT NO: _____
ASSIGNED TO: _____

ALLOW A MINIMUM OF FIVE DAYS FOR PROCESSING

PURPOSE OF APPLICATION: ☐ Monitoring Well Installation ☐ Monitoring Well Destruction ☐ Groundwater Extraction ☒ Soil Boring ☐ Vapor Extraction ☐ Vadose

No. of Wells ____ No. of Borings 7

Well/Boring Location Address: Intersection of Willow Rd. and Ivy Dr. (formerly 1283 and 1291 Willow Rd) City Menlo Park

~~Well #(s)~~ Borings SB-1 to SB-7 Assesor's Parcel No.: 062-103-060

Property Owner
Name: Michael Clark
Address: P.O. Box 2353 City, State, Zip Sunnyvale, CA. 94087
Telephone No.: _____

~~Well Owner~~ (if different than property owner) Soil Borings only
Name: World Distribution Wholesalers
Address: 5464 Cleveland Place City, State, Zip Fremont, CA 94538
Telephone No.: (510) 656-2725

Drilling Company
Name: Precision Sampling, Inc.
Address: 47 Louise St. City State, Zip San Rafael, CA. 94901
Telephone No.: (415) 456-9875 Driller's License No.: C57-636387

Consultant
Name: CET Environmental Services, Inc.
Address: 5845 Doyle St., Ste 104 City, State, Zip Emeryville, CA. 94608
Telephone No.: (510) 652-7001 Contact: Benjamin Berman

— See attached —

Signature of Responsible Professional — Registration or Certification No. of RG/PE/CEG

Depth of Proposed ~~Wells~~/Borings: 6-2-95 Drilling Method: Precision Sampling (hydraulic punch/hammer)

Purpose of Drilling: ☐ County LUFT Requirements ☒ Exploration Studies (PSA) ☐ Title 22 Requirements ☐ Other _____

Soil borings only

~~Well is to be~~ constructed in: ☐ A Public Sidewalk ☐ A Roadway ☐ Public Property ☒ Private Property ☐ Refuse

Well Information: Well Diameter Slot Size _____
Gravel Pack Size _____ Est Screen Interval Depth _____
Development Method (proposed) _____
Planned Drilling Date 6-2-95 (72-hour notification is required to County)

Certification by Well Owner/Agent and Driller/Agent:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the San Mateo County Ordinance and the State Water Well Standards. It is my responsibility as the well owner/agent to notify the County of any changes in the purpose of this well from that which is indicated on this application form.

B. Be 5-24-95 (Precision Sampling)
Well Owner/Agent Date ☒

I certify that in the performance of the work for which this permit is being issued. I shall not employ any person in any manner so as to become subject to the Workmen's Compensation laws of California.

Benjamin Berman, CET
B. B 5-24-95
Driller/Agent Date ☐

I certify that I have a valid Workmen's Compensation Coverage.

SUBSURFACE DRILLING APPLICATION

Upon review of the information on this application and submitted workplan and subject to approval noted below, a permit will be issued allowing owner/agent driller/agent to construct the described well. Permission to mobilize may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

In addition to the well location map included in the workplan, attach a copy to the permit. The well location map shall include the following:

1. Sketch well location to scale, show dimension to nearest foot
2. Show a minimum of two dimensions at right angles. Dimensions shall be from the centerline of the closest named street and or property lines. These dimensions may be estimated and subsequently finalized in the report of findings.
3. North Arrow, existing site features, existing wells and any other pertinent information.

GENERAL CONDITIONS:

A. Construction under this permit is subject to any instructions by a Health Department representative relative to the "Standards for the Construction of Wells in San Mateo County" and the State Water Well Standards.

B. Permit may be voided before work begins if field check reveals any misrepresentation under "well location" of the submitted workplan.

C. The permit is valid only for the purpose specified herein. No change in construction procedure as prescribed in the workplan and in the special conditions below will be allowed except upon written permission of the County.

D. Permittee shall assume entire responsibility for all activities and uses under the permit and shall indemnify, defend and save the County of San Mateo, its' officers, agents and employees free and harmless from any and all expense, cost or liability in connection with or resulting from the exercise of the permit including, but not limited to property damage, personal injury and wrongful death.

E. The wells may not be used for domestic water supplies unless separately approved by the Office of Environmental Health.

F. Permit will be automatically canceled if not exercised or if an extension is not requested by Permittee with 90 calendar days of above date.

G. Driller is to complete State DWR Form 188 and mail original to San Mateo County Environmental Health within 30 days of completion of well construction.

H. For the construction of water producing wells a Permittee must be a licensed water well drilling contractor unless the work is to be done by the landowner or employees of the landowner. (See Business & Professions Code 7026.3, 7028).

I. Dry holes and/or soil borings must be grouted within one week of drilling.

J. Well destruction shall be done in accordance with State and County Standards.

K. All workplans and reports need to conform to County LUFT Enforcement guidelines as well as Regional Water Quality Control Board guidelines and the State Water Well Standards.

L. If contamination is discovered, verbal notification to the county is required within 48 hours. A written report is required within 30 days.

SPECIAL CONDITIONS:

_____

_____

_____

_____

_____

_____

_____

Approved:_____ Date:_____

SUBSURFACE DRILLING APPLICATION

ENVIRONMENTAL HEALTH DIVISION
SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
COUNTY GOVERNMENT CENTER
590 HAMILTON STREET
REDWOOD CITY, CA 94063
(415) 363-4305

DATE ISSUED: _____
PERMIT NO.: _____
FEE: _____
RECEIPT NO: _____
ASSIGNED TO: _____

ALLOW A MINIMUM OF FIVE DAYS FOR PROCESSING

PURPOSE OF APPLICATION: ☐ Monitoring Well Installation ☐ Monitoring Well Destruction ☐ Groundwater Extraction ☒ Soil Boring ☐ Vapor Extraction ☐ Vadose

No. of Wells ____ No. of Borings #7

Well/Boring Location
Address: Intersection of Willow Rd. and Ivy Dr. (formerly 1283 and 1291 Willow Rd.) City: Menlo Park

Well(s)/Borings SB-1 to SB-7 Assessor's Parcel No.: 062-103-066

Property Owner
Name: _____
Address: _____ City, State, Zip _____
Telephone No.: _____

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Telephone No.: (415) 456-9875 Driller's License No.: C57-636387

Consultant
Name: CET Environmental Services, Inc.
Address: 5995 Doyle St., Ste 104 City, State, Zip Emeryville, CA. 94608
Telephone No.: (510) 652-7001 Contact: Benjamin Berman

Michael Chan, P.E., REA — C-48497
Signature of Responsible Professional — Registration or Certification No. of RG/CE/CEG

Depth of Proposed Wells/Borings: 6-2-95 Drilling Method: (Precision Sampling Hydraulic punch/hammer)

Purpose of Drilling: ☐ County LUFT Requirements ☒ Exploration Studies (PSA) ☐ Title 22 Requirements ☐ Other
Soil borings only

Well is to be constructed in: ☐ A Public Sidewalk ☐ A Roadway ☐ Public Property ☒ Private Property ☐ Refuse

Well Information:
Well Diameter Size: _____
Gravel Pack Size: _____ Est Screen Interval Depth: _____
Development Method (proposed): _____
Planned Drilling Date: 6-2-95 (72-hour notification is required to County)

Certification by Well Owner/Agent and Driller/Agent:

I certify that the information given above is correct to the best of my knowledge. I certify that the work will be done in such a manner as to comply with the conditions of this permit, the San Mateo County Ordinances and the State Water Well Standards. It is my responsibility as the well owner/agent to notify the County of any changes in the purpose of this well from that which is indicated on this application form.

B. Be — 5-24-95 — (Precision Sampling)
Well Owner/Agent — Date ☒

Benjamin Berman, CET
B. B — 5-24-95
Driller/Agent — Date ☐

I certify that in the performance of the work for which this permit is being issued, I shall not employ any person in any manner so as to become subject to the Workmen's Compensation laws of California.

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Total Lead (Lead)	EPA Method 6010
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SB-2	Former waste oil UST location, 1291 Willow Road	Waste Oil Suite
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SB-5	Former auto repair shop area, 1283 Willow Road	Waste Oil Suite
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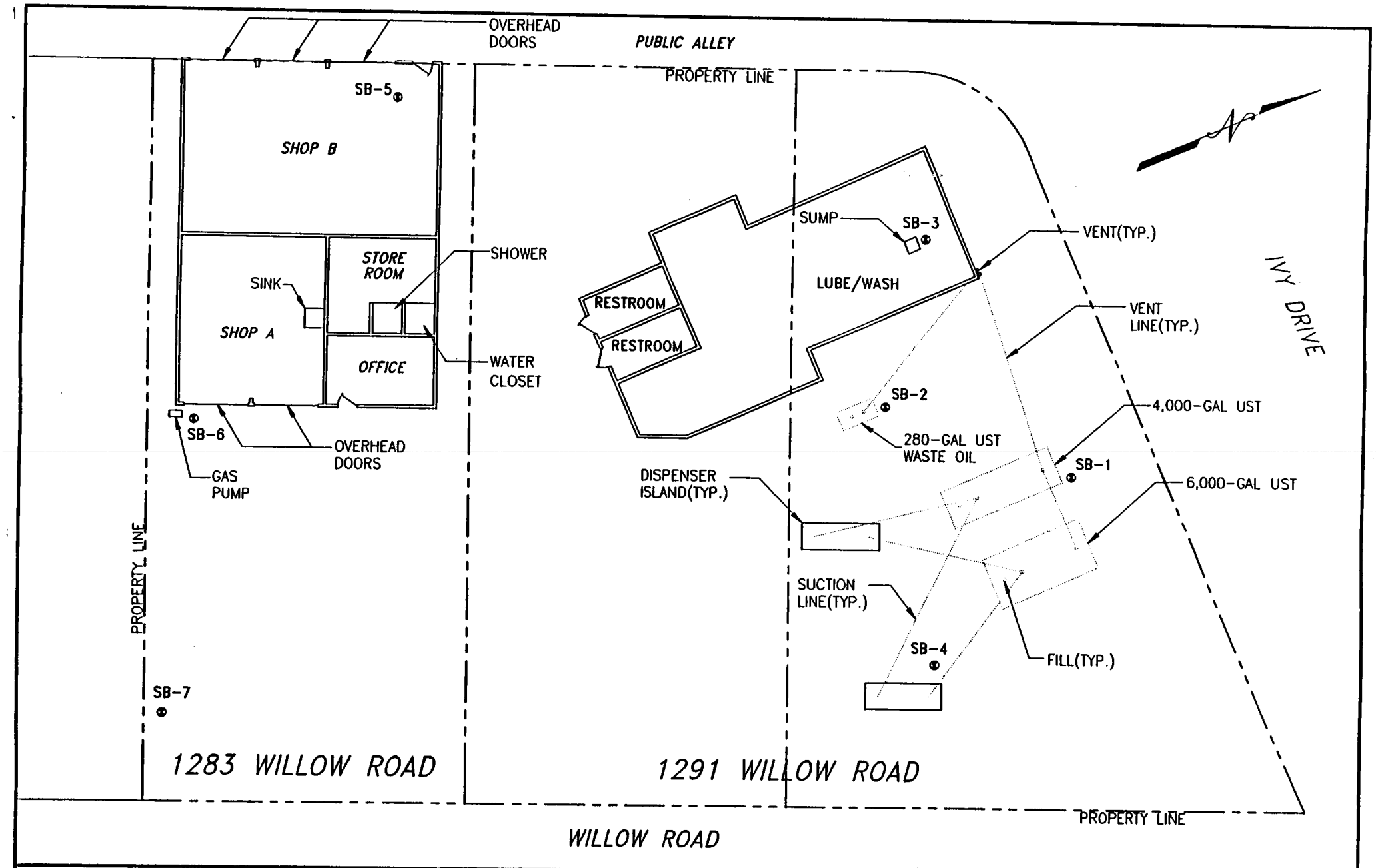
CET will prepare a report of findings of the Phase II investigation. The report will include figures of the locations of detected underground structures, the locations and logs of borings performed, and the results of analytical testing, including copies of the laboratory reports and chain-of-custody documentation. In the event USTs and/or results indicating environmental impacts from hazardous substances or petroleum hydrocarbons to the subject property are found, CET will recommend a course of action in this report.



LEGEND:

⊕ SB-7 PROPOSED BORING LOCATION

SCALE: FEET 0 20 FEET

CET Environmental Services, Inc.

PROPOSED BORING LOCATIONS AND HISTORIC SITE PLAN (CIRCA 1956-1979)

SOURCE: CITY OF MENLO PARK BUILDING DEPARTMENT RECORDS

1283-1291 WILLOW ROAD

MENLO PARK, CALIFORNIA

JOB NUMBER	DATE	DRAWING	BY	REVISED
3686	05/95	PROPOSAL	LONG	05/01

FIGURE 1

CET Environmental Services, Inc.
5845 Doyle Street, Suite 104
Emeryville, CA 94608
Tel. (510) 652-7001
Fax. (510) 652-7002

SAN MATEO COUNTY
ENVIRONMENTAL HEALTH
MAY 31 1995
RECEIVED

LETTER OF TRANSMITTAL

DATE: May 30, 1995

TO: Kathy Chavez
San Mateo County Department of Health Services
County Office Building
590 Hamilton Street
Redwood City, CA 94063

FROM: Benjamin Berman
Staff Scientist

RE: Drilling Application for Vacant Property
Southwest Corner of Willow Road and Ivy Drive
Menlo Park, CA

CET Project No.: 3692-001

Transmitted herewith:

Drilling application along with description of work and drilling location map. As per my May 24, 1995 telephone conversation with Michele Shoemaker, the field work is scheduled for Friday, June 2, 1995.

You will be receiving a check for $242 from our corporate office (Tustin, California) to cover the application fee.

Please call me or Aaron Stessman if you have any questions or comments regarding the scheduled field work.

Thank you.

SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH SERVICES DIVISION

PERMIT NO. 07784

MW-257-99

ENVIRONMENTAL HEALTH PERMIT

FEE CATEGORY 2011 SOIL BORINGS/VADOSE/VAPOR WELLS

ORDINANCE NO. 03101

DATE ISSUED 07/29/99 EXP. DATE 10/29/99 ISSUED BY: G.SMITH

ENVIRONMENTAL HEALTH SPECIALIST

ISSUED TO

OWNER:
MICHAEL CLARK
1355 HAYNE RD
HILLSBOROUGH 94010

CONTRACTOR:
V & W DRILLING
P O BOX 51
RIO VISTA

CONSULTANT: CAMBRIA ENVIR TECH/J.RIGGI

APN/CN 062-103-060 CT AMOUNT PAID: 348.00

TERMS AND CONDITIONS

CONSTRUCT SOIL BORINGS (7)

LOCATION: SN CORNER OF WILLOW RD,MP

THIS PERMIT IS NONTRANSFERABLE AND MUST BE ON SITE.

SUBSURFACE DRILLING APPLI TION

ENVIRONMENTAL HEALTH DIVISION
SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
455 COUNTY CENTER, REDWOOD CITY, CA 94063
Voice (650) 363-4305; Fax (650) 599-1071

Date SAN MATEO COUNTY
Pe ENVIRONMENTAL HEALTH
Fee
Receipt JUL 19 1999
Assign To:

RECEIVED

PURPOSE OF APPLICATION: ☐ MONITORING WELL INSTALLATION ☐ MONITORING WELL DESTRUCTION ☐ GW EXTRACTION ☒ CONSTRUCT SOIL BORINGS ☐ VAPOR EXTRACTION ☐ AIR SPARGING ☐ VADOSE

NO. OF WELLS _____ NO. OF BORINGS ~~3~~ 7

WELL/BORING LOCATION:
Business Name: NA - VACANT LOT ASSESSOR'S PARCEL# 062-103-060
Address SW Corner of Willow Road/Ivy Dr. City,State,ZIP Menlo PARK, CA
Well/Boring #

PROPERTY OWNER:
Name: Mr. Michael Clark Contact Person SAME
Address: 1355 HAYNE ROAD City,State,ZIP Hillsboro, CA 94010
Telephone # 510-420-3340

WELL/BORING OWNER: (IF DIFFERENT FROM PROPERTY OWNER)
Name: SAME Contact Person
Address: City,StateZIP
Telephone #

DRILLING COMPANY NAME: V&W Drilling ContactPerson ROB Vickery
Address: P.O. BOX 51 City,State,ZIP RIO VISTA, CA 95
Telephone # DRILLERS LICENSE # C57-720904

CONSULTANT COMPANY NAME: CAMBRIA ENVR TECH Contact Person JOHN RIGGI
Address: 1144 65th ST City,State,ZIP OAKLAND CA 94608
Telephone # 510-420-3340

x _____ RG 6584
Signature of Responsible Professional Registration No. of RG/PE/CEG

Depth of Proposed Wells/Borings: ~~2~~ 30' Drilling Method: Geoprobe - Direct Push

Purpose of Drilling: ☐ County Groundwater Protection Program ☒ Exploration Studies (PSA)
☐ Title 22 Requirements ☐ Geotechnical

Well/Boring is to be Constructed in: ☐ A Public Sidewalk ☐ A Roadway ☐ Public Property ☒ Private Property ☐ Refuse

Well/Boring Information: Well Diameter: _____ Slot Size _____
Gravel Pack Size: _____ Est Screen Interval Depth: _____
Development Method (proposed) _____
Planned Drilling Date: _____ (Required 72 working day hours confirmation)

Certification by Well/Boring Construction / Destruction, Owner/Agent and Driller/Agent:
I certify that this application is correct to the best of my knowledge. I certify that the well/boring will be constructed in compliance with the conditions of this permit (see reverse), the San Mateo County Ordinance and the State Water Well Standards. It is my responsibility as the well/boring owner/agent to notify the County of any changes in the purpose of this well/boring from that which is indicated on this application.

☒ I CERTIFY THAT IN THE PERFORMANCE OF THE WORK FOR WHICH THIS PERMIT IS BEING ISSUED, I SHALL NOT EMPLOY ANY PERSON IN ANY MANNER SO AS TO BECOME SUBJECT TO THE WORKMEN'S COMPENSATION LAWS OF CALIFORNIA

OR ☐ I CERTIFY THAT I HAVE WORKMEN'S COMPENSATION COVERAGE.

John A Riggi for Michael Clark 7/7/99 AND John A Riggi for V&W Drilling 7/7/99
OWNER/AGENT DATE DRILLER/AGENT DATE

REVISED 06/29/98

ALLOW A MINIMUM OF FIVE WORKING DAYS FOR PROCESSING

SUBSURFACE DRILLING APPLICATION

Upon review of the information on this application and submitted workplan and subject to approval noted below, a permit will be issued allowing owner/agent driller/agent to construct the described well/boring. Permission to mobilize may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

In addition to the well location map included in the workplan, attach a copy to the permit. The well/boring location map shall include the following:

1. **Sketch well location to scale, show dimension to nearest foot**
2. **Show a minimum of two dimensions at right angles. Dimensions shall be from the centerline of the closest named street and or property lines. These dimensions may be estimated and subsequently finalized in the report of findings.**
3. **North Arrow, existing site features, existing wells and any other pertinent information.**

GENERAL CONDITIONS:

A. **Construction under this permit is subject to any instructions by a Health Department representative relative to the "Standards for the Construction of Wells in San Mateo County" and the State Water Well Standards.**

B. **Permit may be voided before work begins if field check reveals any misrepresentation under "well location" of the submitted workplan.**

C. **The permit is valid only for the purpose specified herein. No change in construction procedure as prescribed in the workplan and in the special conditions below will be allowed except upon written permission of the County.**

D. **Permittee shall assume entire responsibility for all activities and uses under the permit and shall indemnify, defend and save the County of San Mateo, its' officers, agents and employees free and harmless from any and all expense, cost or liability in connection with or resulting from the exercise of the permit including, but not limited to property damage, personal injury and wrongful death.**

E. **The wells may not be used for domestic water supplies unless separately approved by the Office of Environmental Health.**

F. **Permit will be automatically canceled if not exercised or if an extension is not requested by Permittee within 90 calendar days of above date.**

G. **Driller is to complete State DWR Form 188 and mail original to San Mateo County Environmental Health within 30 days of completion of well construction.**

H. **For the construction of water producing wells a Permittee must be a licensed water well drilling contractor unless the work is to be done by the landowner or employees of the landowner. (See Business & Professions Code 7026.3, 7028).**

I. **Dry holes and/or soil borings must be grouted within one week of drilling.**

J. **Well destruction shall be done in accordance with State and County Standards.**

K. **All workplans and reports need to conform to County Groundwater Protection Program guidelines as well as Regional Water Quality Control Board guidelines and the State Water Well Standards.**

L. **If contamination is discovered, verbal notification to the county is required within 48 hours. A written report is required within 30 days.**

M. **All wells are to be surveyed to Mean Sea Level.**

SPECIAL CONDITIONS:

Approved: _____ Date: 7/21/99

12/08/97

CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.
1144 - 65th Street, Suite C
Oakland, California 94608
(510) 420-0700

90-3801/1211

4551

DATE 7-8-99

PAY TO THE ORDER OF San Mateo County Dept of Health Services $ 348.00

Three Hundred and Forty/ Eight and ~~~~~ 00 DOLLARS

Security features included.

BANK OF WALNUT CREEK
ORINDA OFFICE
ORINDA, CA 94563

FOR Clark-Phase II Permit

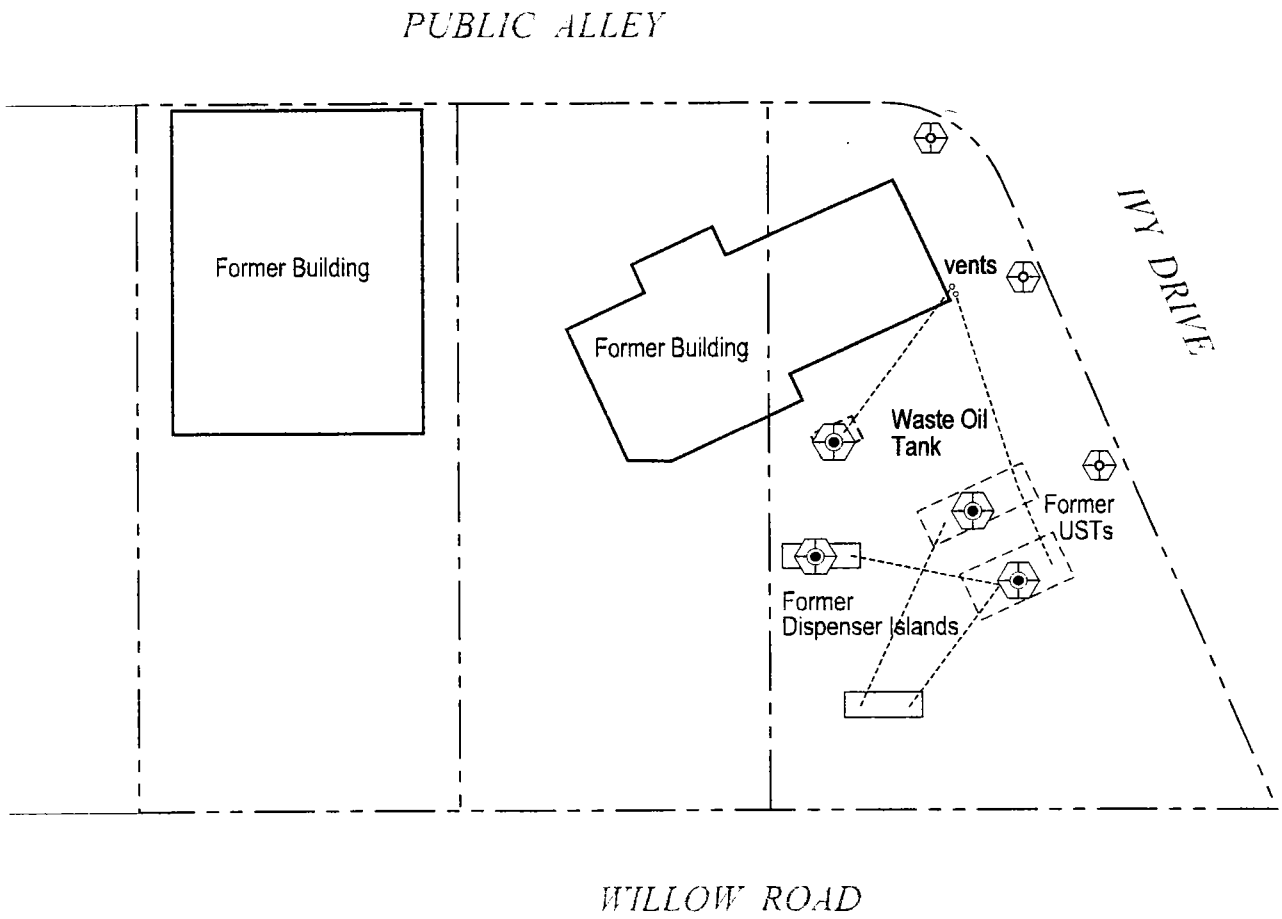
AUTHORIZED SIGNATURE

⑈004551⑈ ⑆121138013⑆ 002 00443??⑈

THIS DOCUMENT INCLUDES A SECURITY SCREEN ON BACK OF THE CHECK

FS

MP



EXPLANATION

- Proposed Soil boring location
- Contingent Soil boring location
- Former Product piping

N

0 15 30

Scale (ft)

FIGURE **1**

H:\CLARK MENLO PARK\FIGURES\SITEPLAN.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Proposed Boring Location Map

CAMBRIA

July 15, 1999

Mr. Greg Smith
San Mateo County Department of Health Services
Environmental Health Division
455 County Center
Redwood City, California 94063

SAN MATEO COUNTY
ENVIRONMENTAL HEALTH
JUL 19 1999
RECEIVED

Re: **Subsurface Investigation Work Plan**
Vacant Property
Formerly 1283 and 1291 Willow Road
Menlo Park, California
Cambria Project # 189-1541

Dear Mr. Smith:

Cambria Environmental Technology, Inc. (Cambria) is submitting this Subsurface Investigation Work Plan on behalf of Mr. Michael Clark. The objective of this investigation is to determine if petroleum hydrocarbons exist beneath the site. Presented below are the site background and Cambria's proposed scope of work. Cambria's standard field procedures for Geoprobe sampling are presented as Attachment A.

SITE BACKGROUND

The site is located on the southwest corner of the intersection of Willow Road and Ivy Drive in Menlo Park, California (Figure 1). The buildings located at the site prior to their 1978 demolition were addressed 1283 and 1291 Willow Road. The site is currently a vacant lot with no structures.

Phase I Environmental Site Assessment: In April 1995, CET Environmental Services of Emeryville, California, conducted a Phase I investigation at the request of Mr. Ralph Romero. CET reported the following: In 1955, Tidewater Associates Oil Company of San Francisco installed three underground storage tanks (USTs) for a service station at 1291 Willow Road, Menlo Park, California; one 4,000 gallon UST, one 6,000 gallon UST, and a 280 gallon waste oil tank. The service station at 1291 Willow Road was demolished in 1978 by Mr. Henry Rainer, the previous property owner. Mr Rainer reported that the 4,000 and 6,000 gallon USTs were removed during the building demolition but was uncertain whether the 280 gallon waste oil tank had been removed. Neither the Menlo Park Fire Department, City of Menlo Park Building Department, or the San Mateo County Department of Health Services (SMCDHS) maintain records documenting UST removals prior to about 1984 to corroborate this UST site history.

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

PROPOSED SCOPE OF WORK

To determine if petroleum hydrocarbons exist beneath the site, Cambria proposes to perform the tasks described below.

Underground Utility Location: Cambria will contact Underground Service Alert (USA) to clear the boring locations prior to drilling.

Site Health and Safety Plan: Cambria will prepare a site safety plan to protect site workers. The plan will be kept onsite at all times and signed by all site workers.

Permits: Cambria will obtain soil boring permits from the SMCDHS, prior to beginning field operations. Cambria will facilitate any necessary site access agreements should they be required.

Soil Borings and Sample Collection: Cambria proposes drilling four soil borings at the site using a GeoProbe® drilling rig at the locations presented on Figure 1. The borings will be advanced near the former UST's and dispenser island. Samples will be field screened using a portable photo ionization detector (PID), and select soil samples will be submitted to the laboratory for analysis. Samples will be collected using clean samplers lined with brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent onsite reference using a measuring wheel or tape measure. Cambria's standard field procedures for GeoProbe® sampling are presented in Attachment A. In addition, grab groundwater samples will be collected from the soil borings before grouting the soil borings to the surface. Additional borings may be advanced to assess the hydrocarbon extent if field indications determine the presence of hydrocarbons beneath the site. These locations will be determined in the field by a trained Cambria Geologist.

Chemical Analysis: Select soil and groundwater samples will be analyzed for:

- Benzene, toluene, ethyl-benzene, xylene (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8020, and
- Total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015.

Reporting: After the analytical results are received, a subsurface investigation report will be prepared that, at a minimum, will contain:

- A summary of the site background and history,
- Descriptions of the drilling and soil and groundwater sampling methods,
- Tabulated soil and groundwater analytical results,
- A figure illustrating the soil boring locations,
- Analytical reports and chain-of-custody forms,
- A discussion of the hydrocarbon distribution beneath the site, and

SCHEDULE

Cambria will perform the proposed activities following written approval of the work plan and boring permits from the SMCDHS. We will submit the investigation report approximately four weeks after completing the field activities.

CLOSING

Please do not hesitate to call John Riggi at (510) 420-3340 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

John A. Riggi
Senior Staff Geologist

Dave Elias, R.G.
Senior Geologist

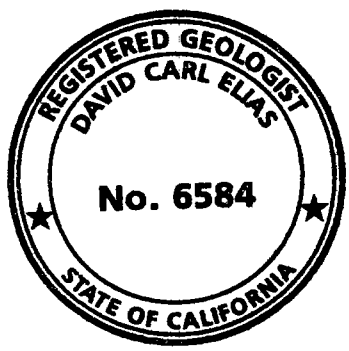


Figure: 1 - Proposed Soil Boring Locations
Attachments: A - Standard Field Procedures for GeoProbe® Sampling

cc. Mr. Michael Clark, 1355 Hayne Road, Hillsboro, California 94010

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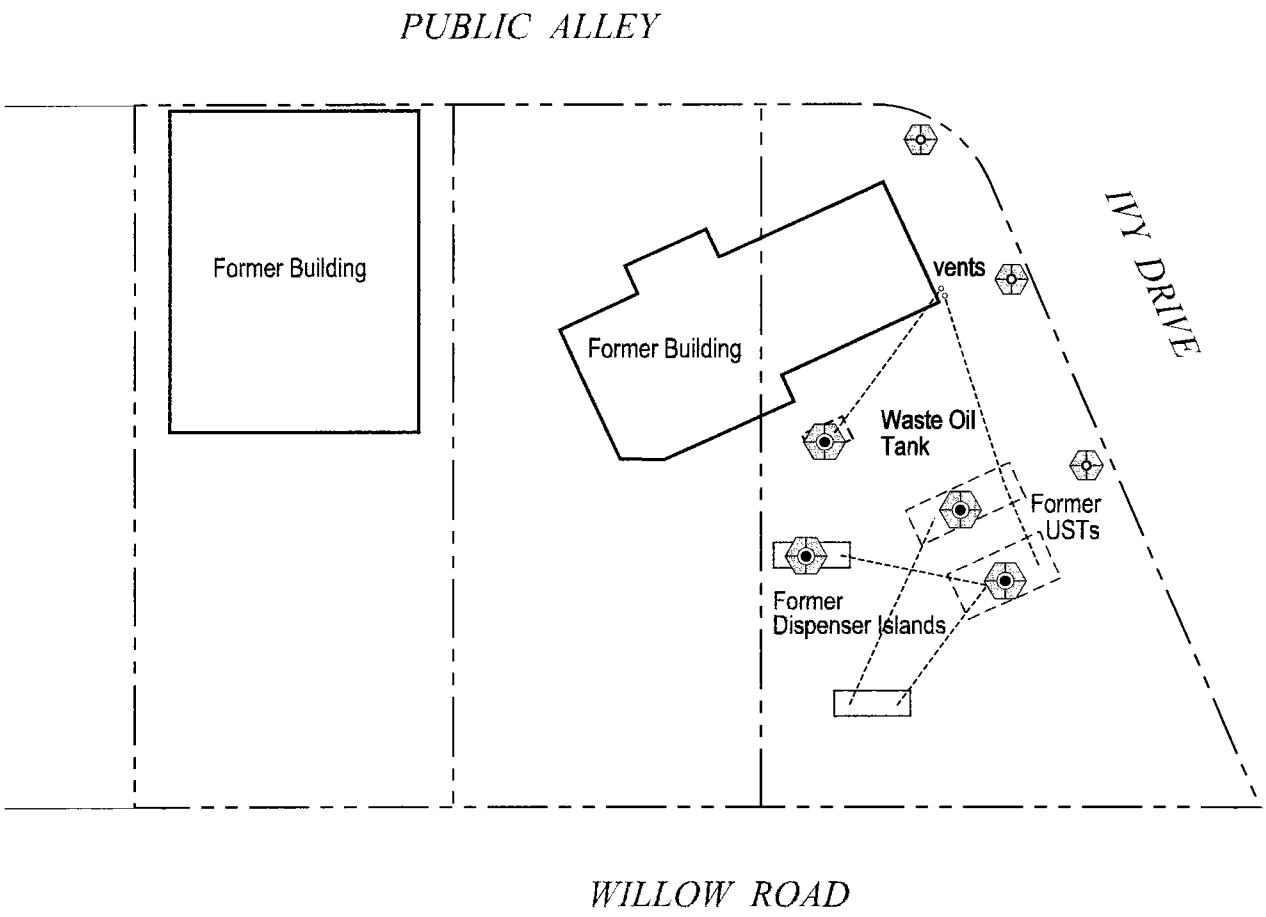
07/15/99



H:\CLARK MENLO PARK\FIGURES\SITEPLAN.DWG

EXPLANATION

- Proposed Soil boring location
- Contingent Soil boring location
- Former Product piping

N

0 15 30

Scale (ft)

FIGURE

1

Clark Phase II

Vacant Property

1283 and 1291 Willow Road

Menlo Park, California

CAMBRIA

Proposed Boring Location Map

ATTACHMENT A

Standard Field Procedures for GeoProbe Sampling

CAMBRIA

STANDARD FIELD PROCEDURES FOR GEOPROBE® SAMPLING

This document describes Cambria Environmental Technology's standard field methods for GeoProbe® soil and ground water sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e., sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or separate-phase hydrocarbon saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e., cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Sampling

GeoProbe® soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech® or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Grab Ground Water Sampling

Ground water samples are collected from the open borehole using bailers, advancing disposable Tygon® tubing into the borehole and extracting ground water using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

CAMBRIA

SUBSURFACE INVESTIGATION REPORT

SAN MATEO COUNTY
ENVIRONMENTAL HEALTH
OCT 12 1999
RECEIVED

1283 - 1291 Willow Road
Menlo Park, California
Cambria Project No. 189-1541

October 8, 1999

Prepared for:

Mr. Michael Clark
1355 Hayne Road
Hillsboro, California 94010

Prepared by:

Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, California 94608

REGISTERED GEOLOGIST
DAVID CARL ELIAS
No. 6584
STATE OF CALIFORNIA

John A. Riggi
Senior Staff Geologist

David C. Elias, R.G.
Senior Geologist

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

Cambria Environmental Technology, Inc.

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Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

CAMBRIA

SUBSURFACE INVESTIGATION REPORT

1283 - 1291 Willow Road
Menlo Park, California
Cambria Project No. 189-1541

October 8, 1999

INTRODUCTION

Cambria Environmental Technology, Inc. (Cambria) has prepared this *Subsurface Investigation Report* for the above-referenced site at the request of Mr. Michael Clark. The objective of this investigation was to determine if petroleum hydrocarbons exist beneath the site. Presented below are the site background, sampling activities, investigation results and conclusions and recommendations.

SITE BACKGROUND

Site Description: The site is located on the southwestern corner of the intersection of Willow Road and Ivy Drive in Menlo Park, California (Figure 1). The buildings located at the site prior to their 1978 demolition were addressed 1283 to 1291 Willow Road. The site is currently a vacant lot with no structures. The surrounding area is mostly residential.

Phase I Environmental Site Assessment: In April 1995, CET Environmental Services of Emeryville, California conducted a Phase I investigation of the site at the request of Mr. Ralph Romero. CET reported the following: In 1955, Tidewater Associates Oil Company of San Francisco, California installed three underground storage tanks (USTs) for a service station at 1291 Willow Road, Menlo Park, California. One 4,000-gallon, one 6,000-gallon and one 280-gallon waste oil tank were installed. The service station at 1291 Willow Road was demolished in 1978 by Mr. Henry Rainer, the previous property owner. Mr. Rainer reported that the 4,000 and 6,000-gallon USTs were removed during the building demolition but was uncertain whether the 280-gallon waste oil tank had been removed. Neither the Menlo Park Fire Department, City of Menlo Park Building Department, or the San Mateo County Department of Health Services maintain records documenting UST removals prior to approximately 1984 to

collaborate this UST site history. [1] However, no evidence of the waste oil tank was noted during a geophysical survey completed for this investigation.

Groundwater Flow Direction: Depth to groundwater is generally from 8-10 feet bgs flowing towards the north/northwest and the Ravenswood Slough. The slough and nearby wetlands are located approximately located 2600 feet north of the site.

SAMPLING ACTIVITIES

Scope of Work: To assess if petroleum hydrocarbons exist beneath the site, Cambria advanced eight Geoprobe soil borings and collected soil and grab groundwater samples from beneath the referenced site. Borings CB-2 and CB-3 were advanced to investigate the former tank pit. Borings CB-5 and CB-4 were advanced to assess the former dispenser islands. Boring CB-8 was advanced to investigate the waste oil tank and borings CB-7 and CB-8 were advanced to assess downgradient soil and groundwater conditions. Cambria's standard field procedures for soil borings are presented in Appendix A.

Geophysical Survey: Prior to the sampling activities, Cambria met onsite with CU Surveys of San Ramon, California to determine if the 280-gallon waste oil tank had been removed from the site during the 1978 demolition activities. CU Surveys did not detect any evidence of the former waste oil tank during the geophysical survey

Personnel Present: Jacquelyn Jones, Cambria Geologist, working under the supervision of California Registered Geologist David C. Elias. John Riggi, Cambria Geologist was onsite during the geophysical survey.

Permits: San Mateo County Department of Health Services Environmental Health Permit # 07784 is presented as Appendix B.

Drilling Company: V&W Drilling of Rio Vista, California (C-57 License #720904).

Drilling Date: August 23, 1999.

Number of Borings: Eight borings (CB-1 through CB-8, Figure 2).

---

[1] *Phase I Environmental Assessment*, CET Environmental Services, Inc., Emeryville, California, April 28, 1995

Drilling Method: Direct-push Geoprobe.

Boring Depths: Boring CB-1 was advanced and sampled to a depth of 24 feet below ground surface (bgs). CB-2, CB-3, CB-4, and CB-6 were advanced and sampled to 20 feet bgs. CB-5, CB-7, and CB-8 were advanced and sampled to 16 feet bgs.

Soil Types Encountered: The site is underlain by sandy gravelly fill to approximately 2 feet bgs, followed by silty clays and clayey silts to approximately 10 feet bgs. Poorly graded fine to coarse grained sand and poorly graded gravel units of high permeability exist from approximately 10 to 15 feet bgs. Thin clayey silt units were encountered within the sands and gravels to the maximum depth explored of 24 feet bgs (Appendix C).

Groundwater Sampling: Grab groundwater samples were collected from each boring during sampling activities.

Chemical Analysis: Selected soil and groundwater samples from each boring were analyzed for: total petroleum hydrocarbons as gasoline (TPHg), and total petroleum hydrocarbons as diesel (TPHd) by modified EPA Method 8015; and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8020. In addition, selected soil samples were analyzed for total lead by EPA Method 8010, oil and grease by EPA Method 5520, volatile halocarbons by EPA Method 8010, and LUFT metals. The samples were analyzed at McCambell Analytical, of Pacheco, California, a California-certified laboratory (Tables 1, 2, 3, and 4). The analytical report is presented as Appendix D.

Backfill Method: Borings were backfilled to existing grade with bentonite-cement grout.

INVESTIGATION RESULTS

No benzene, MTBE, oil and grease, or volatile halocarbons were detected in any of the soil or groundwater samples analyzed. The LUFT Metals analysis for the soil sample collected from boring CB-8 showed metals concentrations in soil within the EPA Region 9 range of background concentrations reported in their *Region 9 Preliminary Remediation Goals 1998.* The groundwater sample collected from CB-8 contained metals concentrations near or below EPA maximum contaminant levels for drinking water. Soil sample CB-2-7 collected from the former UST area contained maximum TPHg and TPHd concentrations of 180 mg/kg and 140 mg/kg, respectively. A maximum TPHd concentration of 3,500 µg/L was reported in groundwater

sample CB-3W. The only TPHg concentrations detected in groundwater were in samples CB-2W and CB-3W at 100 µg/L and 910 µg/L, respectively, collected from beneath the former tank pit. Although 630 µg/L TPHd was detected in downgradient boring CB-7, no TPHg, benzene, or MTBE were detected. These analytical results indicate that gasoline range hydrocarbons are likely restricted to the area immediately adjacent to the former tankpit. The soil samples collected from upgradient boring CB-4 contained no field indications of hydrocarbons, including hydrocarbon staining or odors. Therefore, these samples were not analyzed due to budget constrictions.

CONCLUSIONS AND RECOMMENDATIONS

Cambria recommends case closure based on the following rationale:

- No benzene or MTBE were detected in any of the soil or groundwater samples collected. The absence of benzene, the primary carcinogen contained in gasoline, indicates that there is no likely significant health risk associated with the release. In addition, since no MTBE was detected, it is unlikely that issues related to MTBE's significant solubility and mobility would be a concern at the site;

- Although gasoline range hydrocarbons were detected in samples collected from borings CB-2 and CB-3, which are located adjacent to the former tankpit, no gasoline-range hydrocarbons or additives were detected in soil or groundwater samples collected from downgradient borings CB-6, and CB-7, located approximately 30 feet northwest of the former USTs. These results indicate that the gasoline-range hydrocarbons detected in the former UST area have not migrated significantly downgradient, and may have naturally attenuated beneath the site since the UST removal in 1978;

- The actual soluble hydrocarbon concentrations in groundwater would likely be orders of magnitude lower if the site groundwater were sampled from a permanent monitoring well. Grab groundwater samples commonly contain artificially elevated hydrocarbon concentrations due to hydrocarbons adsorbing to soil particles entrained in the sample. The sandpack in a permanent monitoring well usually filters out the soil particles, allowing for a more accurate assessment of the actual soluble hydrocarbon concentrations;

- Soil and groundwater samples collected from boring CB-8, advanced to characterize the former waste oil tank pit, detected no TPHg, BTEX, MTBE, oil and grease, or volatile halocarbons; and

- Although 630 µg/L TPHd and 1.3 µg/L xylenes were detected in downgradient borings CB-6 and CB-7, these concentrations are well below the common acceptable regulatory thresholds of 1,000 µg/L for diesel and the maximum contaminant level of 10,000 µg/L for xylenes.

ATTACHMENTS

Figure 1 - Vicinity Map
Figure 2 - Soil Boring Location Map

Table 1 - Groundwater Hydrocarbon Analytic Data
Table 2 - Groundwater Metals Analytic Data
Table 3 - Soil Hydrocarbon Analytic Data
Table 4 - Soils Metals Analytic Data

Appendix A - Standard Field Procedures for Soil Borings
Appendix B - Drilling Permit
Appendix C - Soil Boring Logs
Appendix D - Analytical Report

cc. Mr. Greg Smith, San Mateo County Department of Health Services
455 County Center, Redwood City, California, 94063

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Figures

09/09/99

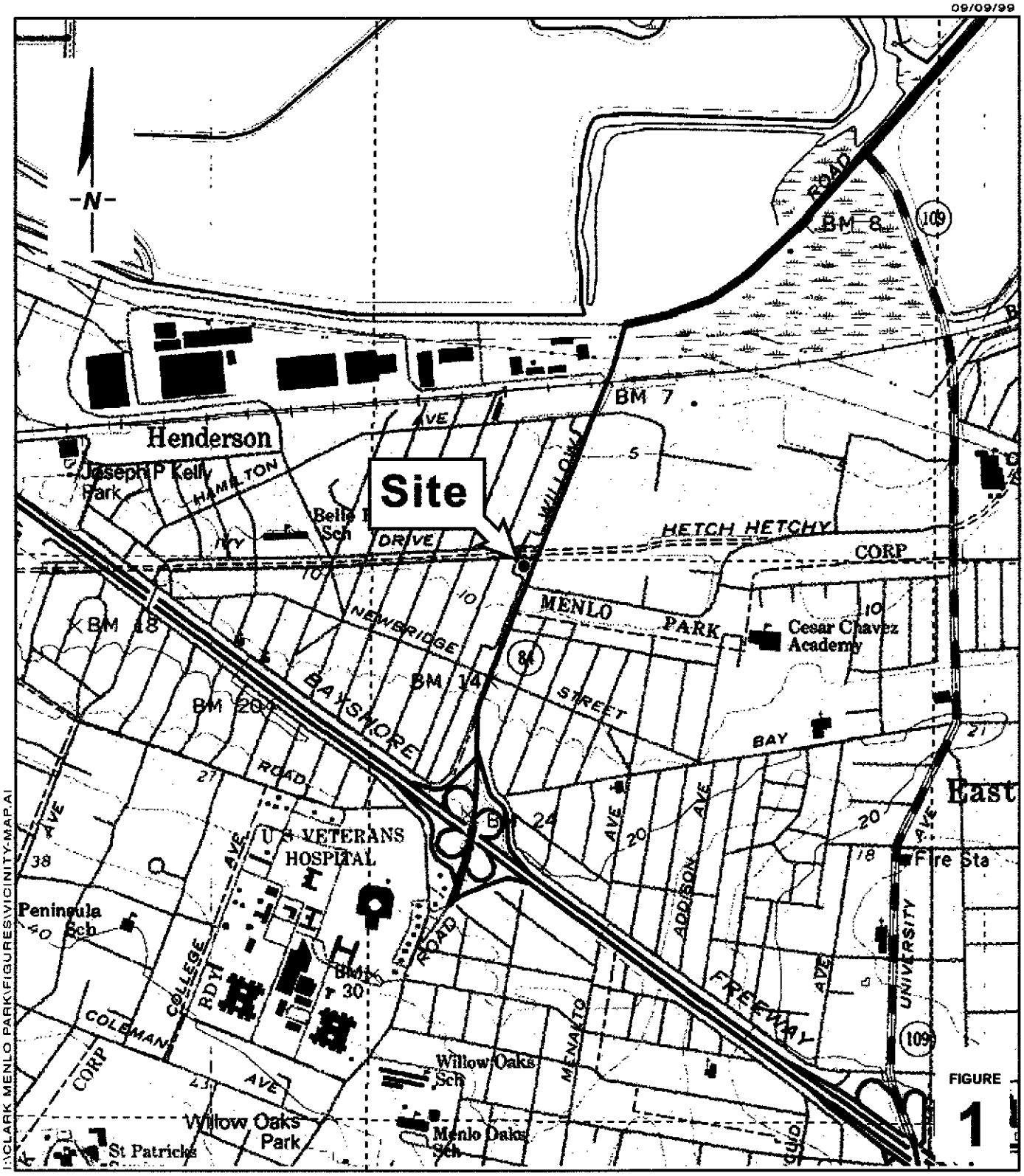


FIGURE 1

0 1/8 1/4 1/2 1

SCALE 1:1/4 MILE

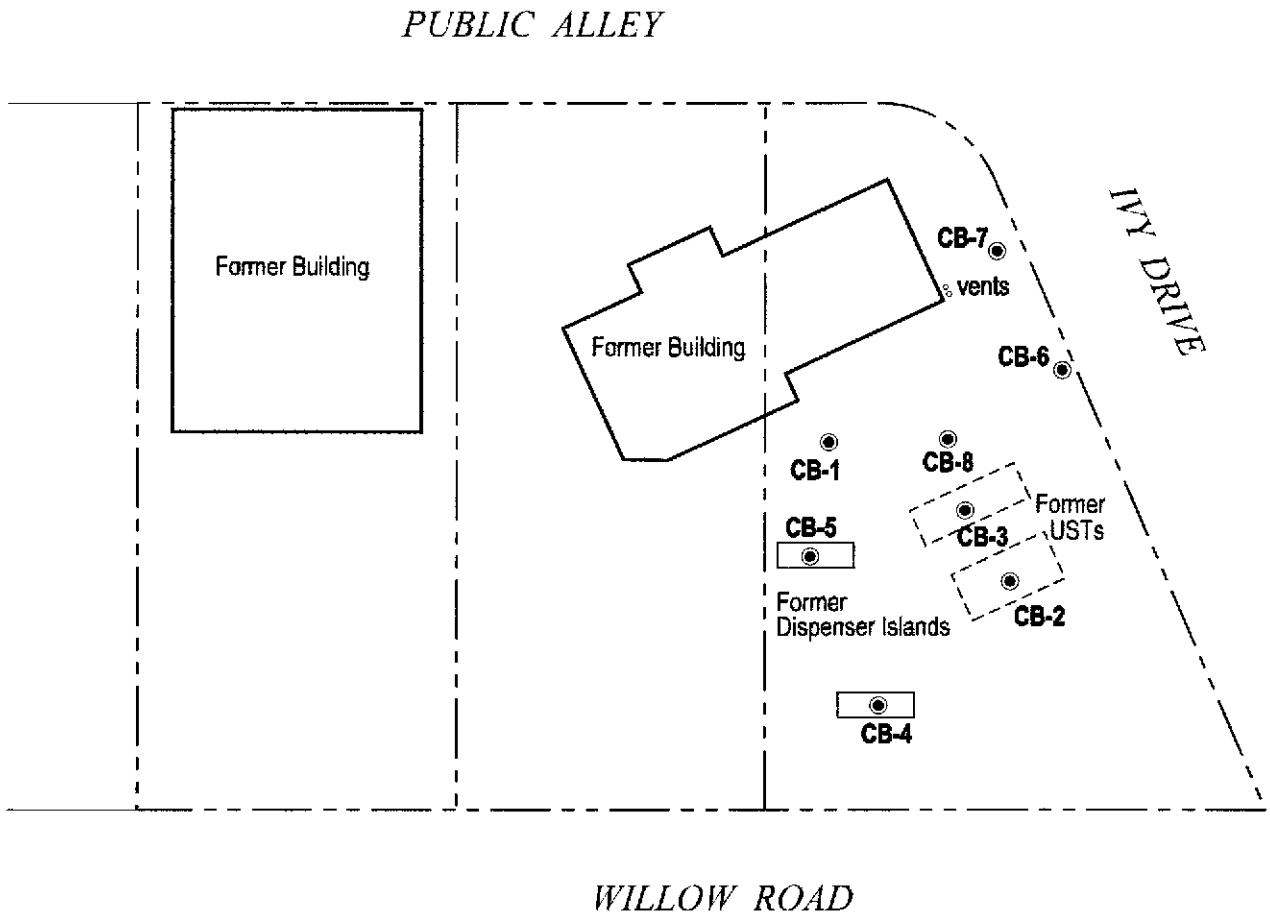
Clark Phase II

1283 and 1291 Willow Road

Menlo Park, California

CAMBRIA

Vicinity Map



EXPLANATION

CB-1 ◉ Soil boring location

N

0 15 30

Scale (ft)

FIGURE

2

H:\CLARK MENLO PARK\FIGURES\BOR-LOC.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map

Tables

CAMBRIA

Table 1. Groundwater Hydrocarbon Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Date	Oil and Grease	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Volatile Halocarbons
		< ---------- (µg/L) ---------- >								
CB-2W	8/23/99	---	370[a,b,e]	100[c,d]	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-3W	8/23/99	---	3,500[b,c,e]	910[c,f,g]	<0.5	0.92	3.4	2.7	<5.0	---
CB-5W	8/23/99	---	220[c,e]	<50[c]	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-6W	8/23/99	---	<50	<50	<0.5	<0.5	<0.5	1.3	<5.0	---
CB-7W	8/23/99	---	630[e]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-8W	8/23/99	<0.005	62[a,b,c]	<50[c]	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5

Notes:

Oil and grease by EPA methods 5520

TPHd = Total extractible petroleum hydrocarbons as diesel by EPA method Modified 8015.

TPHg = Total extractible petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

Volatile halocarbons by EPA method 601 or 8010.

Analytical Laboratory Notes:

a = Diesel range compounds are significant; no recognizable pattern.

b = Gasoline range compounds are significant.

c = Liquid sample contains greater than ~5 vol. % sediment.

d = Strongly aged gasoline or diesel range compounds are significant.

e = Oil range compounds are significant.

f = Heavier gasoline range compounds are significant (aged gasoline?).

g = No recognizable pattern.

CAMBRIA

Table 2. Groundwater Metals Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Date	Dissolved Lead	LUFT Metals			
			Cadmium	Chromium	Nickel	Zinc
		(µg/l)				
CB-2W	8/23/99	<5.0	---	---	---	---
CB-3W	8/23/99	<5.0	---	---	---	---
CB-5W	8/23/99	<5.0	---	---	---	---
CB-8W	8/23/99	<5.0	10	18	290	90

Notes:
Dissolved Lead by EPA method 239.2.
LUFT Metals by EPA method 239.2.

CAMBRIA

Table 3. Soil Hydrocarbon Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Depth (ft bgs)	Sample Date	Oil and Grease	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Volatile Halocarbons
			< ---------- (mg/kg) ---------- >								
CB-2 @7'	7.0	8/23/99	---	140[a]	180[b]	<0.005	0.051	<0.02	0.059	<0.10	---
CB-3 @11'	11.0	8/23/99	---	130[a,c]	96[d,e]	<0.01	<0.01	<0.01	<0.01	<0.20	---
CB-5 @7'	7.0	8/23/99	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
CB-8 @11'	11.0	8/23/99	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005

Notes:

bgs = below ground surface.

Oil and grease by EPA methods 5520

TPHd = Total purgeable petroleum hydrocarbons as diesel by EPA method Modified 8015.

TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

Volatile halocarbons by EPA method 601 or 8010.

Analytical Laboratory Notes:

a = Medium boiling point pattern that does not match diesel (stoddard solvent?).

b = Strongly aged gasoline or diesel range compounds are significant.

c = Oil range compounds are significant.

d = TPH pattern that does not appear to be derived from gasoline (stoddard solvent?).

e = No recognizable pattern.

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Table 4. Soil Metals Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Depth (ft bgs)	Sample Date	LUFT Metals (mg/kg)				
			Lead	Cadmium	Chromium	Nickel	Zinc
CB-2 @7'	7.0	8/23/99	9.5	---	---	---	---
CB-3 @11'	11.0	8/23/99	13	---	---	---	---
CB-5 @7'	7.0	8/23/99	9.8	---	---	---	---
CB-8 @11'	11.0	8/23/99	4.2 (<3.0)	<0.5	31	33	39

Notes:

bgs = below ground surface.

Lead by EPA method 6010.

LUFT Metals by EPA method 6010/200.7.

x(y) = Concentration in parenthesis indicates sample was analyzed for analyte more than once.

Appendix A

Standard Field Procedures for Soil Borings

CAMBRIA

STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Cambria Environmental Technology's standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic push technologies. At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licenced waste haulers and disposed in secure, licenced facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licenced waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

Appendix B

Drilling Permit

SAN MATEO COUNTY DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH SERVICES DIVISION

PERMIT NO. 07784

MW-257-99

PERMIT

FEE CATEGORY 2011 SOIL BORINGS/VADOSE/VAPOR WELLS

ORDINANCE NO. 03101

DATE ISSUED 07/29/99 EXP. DATE 10/29/99 ISSUED BY: G.SMITH

ENVIRONMENTAL HEALTH SPECIALIST

ISSUED TO

OWNER:
MICHAEL CLARK
1355 HAYNE RD
HILLSBOROUGH 94010

CONTRACTOR:
V & W DRILLING
P O BOX 51
RIO VISTA

CONSULTANT: CAMBRIA ENVIR TECH/J.RIGGI

APN/CN 062-103-060 CT AMOUNT PAID: 348.00

TERMS AND CONDITIONS

CONSTRUCT SOIL BORINGS (7)

LOCATION: SN CORNER OF WILLOW RD,MP

THIS PERMIT IS NONTRANSFERABLE AND MUST BE ON SITE.

Appendix C

Soil Boring Logs

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-1
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.5 ft (23-Aug-99) ▽
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99) ▼
REMARKS	Located 48' S, 6' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							CONCRETE.	0.5	
					SP		**Gravelly SAND**; (SP); brown; dry; 5% clay, 5% silt, 50% sand, 40% gravel; high estimated permeability.	2.0	
		CB-1 @3'		5	CL		**Silty Gravelly CLAY**; (CL); dark brown; dry; 35% clay, 20% silt, 10% fine to medium grained sand, 35% gravel; medium plasticity; low estimated permeability.	6.5	
		CB-1 @7'			ML		**Sandy SILT**; (ML); dark brown; dry to moist; 10% clay, 45% silt, 10% sand, 35% gravel; low plasticity; low to moderate estimated permeability.		
		CB-1 @11'		10	SP		**Gravelly SAND**; (SP); dark brown; moist to wet; 5% clay, 5% silt, 55% fine to coarse grained sand, 35% gravel; high estimated permeability. ▼ ▽	10.0	◄ Portland Type I/II
				15			@ 15' - as above; wet; 10% silt, 60% fine to coarse grained sand, 30% fine gravel.	17.5	
		CB-1 @19'			ML		**SILT with Clay**; (ML); light brown; damp to wet; 15% clay, 70% silt, 10% sand, 5% gravel; low plasticity; *moderate estimated permeability.*	20.0	
				20	SP		**Gravelly SAND**; (SP); light brown; wet; 5% clay, 5% silt, 55% fine to coarse grained sand, 35% gravel; high estimated permeability.	21.0	
					ML		**SILT with Clay**; (ML); light brown; damp to wet; 15% clay, 70% silt, 10% sand, 5% gravel; low plasticity; moderate estimated permeability.	23.0	
					SP		**Gravelly SAND**; (SP); light brown; wet; 5% clay, 5% silt, 55% *fine to coarse grained sand*, 35% *gravel*; high estimated permeability.	24.0	Bottom of Boring @ 24 ft

WELL LOG (TPH-G) H:\CLARK-~1\GINTYCLARK-MP.GPJ DEFAULT.GDT 9/27/99

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1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-2
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 27' S, 27' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					CL		**Silty Gravelly CLAY**: (CL); dark brown; dry; 35% clay, 25% silt, 10% sand, 35% gravel; medium plasticity; low to moderate estimated permeability.	1.5	
					SP		**Gravelly SAND**; (SP); white to tan; dry; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	2.5	
		CB-2 @3'			ML		**Clayey SILT with Sand**; (ML); black to dark brown; dry; 20% clay, 60% silt, 15% very fine to fine grained sand, 5% fine gravel; low plasticity; low estimated permeability.		
				5				6.0	
180		CB-2 @7'			ML		**Clayey SILT**; (ML); black to dark brown; dry; 20% clay, 65% silt, 5% sand, 10% gravel; low plasticity; low estimated permeability.	8.5	
				10	ML		**Gravelly SILT**; (ML); dark brown; damp to wet; 10% clay, 60% silt, 10% sand, 20% gravel; low plasticity; low to moderate estimated permeability. ▼		Portland Type I/II
		CB-2 @11'			SP		**Gravelly SAND**; (SP); brown; wet; 10% clay, 10% silt, 50% sand, 30% gravel; high estimated permeability.	12.0	
		CB-2 @15'		15	ML		**SILT with Clay**; (ML); brown; damp to wet; 15% clay, 70% silt, 10% sand, 5% gravel; low plasticity; moderate estimated permeability.	14.5	
					SP		**Gravelly SAND**; (SP); brown; wet; 10% clay, 10% silt, 50% sand, 30% gravel; high estimated permeability.	16.5	
		CB-2 @19'		20				20.0	Bottom of Boring @ 20 ft

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Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-3
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	***TOP OF CASING ELEVATION***	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	12.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 33' S, 13' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
		CB-3 @3'			ML		**Gravelly SILT**; (ML); brown; dry; 10% clay, 60% silt, 10% sand, 20% gravel; no plasticity; moderate estimated *permeability*.	4.0	
				5	ML		**Gravelly SILT with Sand**; (ML); brown; dry; 5% clay, 60% silt, 15% sand, 20% gravel; no plasticity; moderate estimated permeability.		
							@ 9' - moist.	9.5	
				10	SP		**Gravelly SAND**; (SP); brown; moist; 5% silt, 65% sand, 30% gravel; high estimated permeability.	10.5	Portland Type I/II
96		CB-3 @11'			ML		**Clayey SILT**; (ML); black; moist; 20% clay, 65% silt, 5% sand, 10% gravel; low plasticity; low estimated permeability.	12.0	
					SP		**Gravelly SAND**; (SP); brown; wet; 5% silt, 65% sand, 30% gravel; high estimated permeability.	15.0	
		CB-3 @15'		15	ML		**Sandy SILT**; (ML); light brown; wet; 60% silt, 35% fine grained sand, 5% gravel; low plasticity; low to moderate estimated permeability.	17.0	
					SP		**Gravelly SAND**; (SP); light brown; wet; 5% silt, 65% sand, 30% gravel; high estimated permeability.	19.0	
		CB-3 @19'			ML		**Sandy SILT**; (ML); light brown; wet; 60% silt, 35% fine grained sand, 5% gravel; no plasticity; low to moderate estimated permeability.	20.0	Bottom of Boring @ 20 ft
				20					

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Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-4
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	15.0 ft (23-Aug-99) ▽
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99) ▼
REMARKS	Located 68' S, 47' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					SP		**Gravelly SAND**; (SP); brown; dry; 10% silt, 60% sand, 30% gravel; high estimated permeability.	2.0	
		CB-4 @3'		5	CL		**Silty CLAY with Gravel**; (CL); dark brown; dry; 45% clay, 35% silt, 5% sand, 15% gravel; medium plasticity; low estimated permeability.		
		CB-4 @7'						8.5	
					SP		**Gravelly SAND**; (SP); light brown; dry; 10% silt, 70% sand, 20% gravel; high estimated permeability. ▼	10.0	Portland Type I/II
				10	ML		**Clayey SILT with Gravel**; (ML); tan; dry; 35% clay, 45% silt, 5% sand, 15% gravel; low plasticity; low estimated permeability.	11.0	
		CB-4 @11'			ML			12.0	
					SP		***SILT***; *(ML); light brown; dry; 10% clay, 80% silt, 10%* fine grained sand; low plasticity; moderate estimated permeability.	13.0	
					ML		**Gravelly SAND**; (SP); light brown; dry; 10% silt, 70% sand, 20% gravel; high estimated permeability. ▽		
		CB-4 @15'		15			**SILT**; (ML); brown; damp; 10% clay, 80% silt, 10% fine grained sand; low plasticity; moderate estimated *permeability.*	16.0	
					SP		**SAND**; (SP); brown; wet; 5% clay, 10% silt, 75% sand, 10% gravel; high estimated permeability.		
		CB-4 @18'						18.5	
					ML		**SILT**; (ML); dark brown; wet; 10% clay, 80% silt, 10% fine grained sand; low plasticity; moderate estimated permeability.	20.0	Bottom of Boring @ 20 ft
				20					

WELL LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 9/27/99

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Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-5
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 70' S, 18' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							CONCRETE.	0.5	
					SP		**Gravelly SAND**; (SP); brown; dry; 5% clay, 15% silt, 50% sand, 30% gravel; high estimated permeability.	2.0	
		CB-5 @3'			CL		**Silty CLAY**; (CL); black; dry; 55% clay, 40% silt, 5% sand, 10% gravel; medium plasticity; low estimated permeability.	4.5	
				5	SP		**Gravelly SAND**; (SP); light tan; dry; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	5.5	
<1.0		CB-5 @7'			CL		**Silty CLAY with Gravel**; (CL); brown; moist; 40% clay, 35% silt, 10% sand, 15% gravel; medium plasticity; low estimated permeability.		Portland Type I/II
				10	GP			10.0	
							Sandy GRAVEL; (GP); brown; wet; 10% clay, 35% sand, 55% gravel; high estimated permeability.	10.5	
		CB-5 @11'			SM		**Silty SAND**; (SM); brown; wet; 5% clay, 35% silt, 60% sand; no plasticity; moderate estimated permeability.	12.0	
					CL		**Silty CLAY**; (CL); black; damp; 50% clay, 40% silt, 5% sand, 5% gravel; medium plasticity; low estimated permeability.	12.5	
					SM		**Silty SAND**; (SM); brown; wet; 5% clay, 35% silt, 60% sand; no plasticity; moderate estimated permeability.	14.5	
		CB-5 @15'		15	GP		**Sandy GRAVEL**; (GP); brown; wet; 10% silt, 35% sand, 55% gravel; high estimated permeability.	16.0	Bottom of Boring @ 16 ft

WELL LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 9/27/99

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-6
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99) ▽
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99) ▼
REMARKS	Located 9' S, 4' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					GP		**Sandy GRAVEL**; (GP); brown; dry; 5% clay, 10% silt, 35% sand, 50% gravel; high estimated permeability.	1.0	
					SP		**SAND**; (SP); brown; dry; 60% sand, 40% gravel; high estimated permeability.	2.5	
		CB-6 @3'			CL		**Silty CLAY**; (CL); black; dry; 50% clay, 40% silt, 5% sand, 5% gravel; medium plasticity; low estimated permeability.	4.0	
					SP		**Gravelly SAND**; (SP); brown; dry; 55% sand, 45% gravel; high estimated permeability.	4.5	
				5	CL		**Silty CLAY**; (CL); dark brown; dry; 50% clay, 40% silt, 5% sand, 5% gravel; medium plasticity; low estimated permeability.	6.0	
		CB-6 @7'			ML		**Gravelly SILT with Clay**; (ML); dark brown; dry; 15% clay, 60% silt, 5% sand, 20% gravel; no plasticity; low to moderate estimated permeability.	9.0	
				10	ML		**Gravelly SILT**; (ML); light brown; dry; 5% clay, 55% silt, 10% sand, 30% gravel; no plasticity; moderate estimated permeability. ▼	10.5	◄ Portland Type I/II
					SP		**Gravelly SAND**; (SP); light brown; wet; 60% sand, 40% gravel; high estimated permeability.	11.0	
		CB-6 @11'			GP		**Sandy GRAVEL**; (GP); brown; wet; 5% clay, 40% sand, 55% gravel; high estimated permeability.		
				15				15.5	
					SP		**Gravelly SAND**; (SP); brown; wet; 60% sand, 40% gravel; high estimated permeability.	16.0	
					GP		**Sandy GRAVEL**; (GP); brown; wet; 5% clay, 40% sand, 55% gravel; high estimated permeability.	18.0	
		CB-6 @19'			ML		**SILT with Sand**; (ML); light brown; wet; 10% clay, 75% silt, 15% very fine grained sand; no plasticity; low to moderate estimated permeability.		
				20				20.0	Bottom of Boring @ 20 ft

WELL LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 9/27/99

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Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-7
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 9' S, 28' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					SP		**Silty Gravelly SAND**; (SP); brown; dry; 20% silt, 45% sand, 35% gravel; high estimated permeability.	1.0	
					CL		**Silty CLAY**; (CL); black; dry; 45% clay, 40% silt, 10% sand, 5% gravel; medium plasticity; low estimated permeability.		
		CB-7 @3'		5					
								6.0	
		CB-7 @7'			ML		**SILT with Sand**; (ML); brown; dry; 5% clay, 70% silt, 15% sand, 10% gravel; no plasticity; moderate estimated permeability.	8.0	Portland Type I/II
					ML		**Gravelly SILT**; (ML); brown; moist; 5% clay, 60% silt, 10% sand, 25% gravel; no plasticity; moderate estimated permeability.	9.0	
					SP			10.0	
				10			**Gravelly SAND**; (SP); brown; moist; 5% silt, 55% sand, 40% gravel; high estimated permeability.		
		CB-7 @11'			GP		**Sandy GRAVEL**; (GP); brown; wet; 5% clay, 35% sand, 60% gravel; high estimated permeability. @ 13' - as above; 5% silt, 20% sand, 75% gravel up to 2".	14.0	
					SP		**Gravelly SAND**; (SP); brown; wet; 5% silt, 55% sand, 40% gravel; high estimated permeability.	15.0	
				15	ML		**SILT**; (ML); brown; wet; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity; moderate estimated permeability.	16.0	Bottom of Boring @ 16 ft
		CB-7 @16'							

WELL LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 9/27/99

Cambria Environmental Technology, Inc.
1144 - 65th St.
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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-8
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	9.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	9.00 ft (23-Aug-99)
REMARKS	Located 32' S, 4' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					SP		**Gravelly SAND**; (SP); brown; dry; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	2.0	
		CB-8 @3'		5	CL		**Silty CLAY with Sand**; (CL); black; dry; 45% clay, 40% silt, 15% sand; medium plasticity; low estimated *permeability*.	6.0	
		CB-8 @7'			ML		**Gravelly SILT**; (ML); brown; dry; 10% clay, 60% silt, 10% sand, 20% gravel; no plasticity; low to moderate estimated permeability. *@ 8' - as above; moist.*	9.0	Portland Type I/II
				10	SP		**Gravelly SAND**; (SP); brown; wet; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	11.0	
<1.0		CB-8 @11'			GP		**Sandy GRAVEL**; (GP); brown; wet; 5% clay, 5% silt, 30% sand, 60% gravel to 1.5"; high estimated permeability.	13.0	
					SP		**Gravelly SAND**; (SP); brown; wet; 5% clay, 5% silt, 55% sand, 35% gravel; high estimated permeability.	15.5	
		CB-8 @15'		15	ML		**SILT**; (ML): *light brown to tan; wet; 10% clay, 80% silt,* 5% sand, 5% gravel; low to medium plasticity; low to moderate estimated permeability.	16.0	Bottom of Boring @ 16 ft

WELL LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 9/27/99

Appendix D

Analytical Report

McCAMPBELL ANALYTICAL INC.

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Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #189-1541; Clarks-Menlo Park	Date Sampled: 08/23/99
		Date Received: 08/24/99
	Client Contact: Jacquelyn Jones	Date Extracted: 08/24/99
	Client P.O:	Date Analyzed: 08/25-09/01/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben -zene	Xylenes	% Recovery Surrogate
17944	CB2 @ 7'	S	180,g	ND<0.10	ND	0.051	ND<0.02	0.059	94
17948	CB2 W	W	100,g,i	ND	ND	ND	ND	ND	104
17950	CB3 @ 11'	S	96,e,j	ND<0.20	ND<0.01	ND<0.01	ND<0.01	ND<0.01	103
17953	CB3 W	W	910,b,j,i	ND	ND	0.92	3.4	2.7	104
17961	CB5 @ 7'	S	ND	ND	ND	ND	ND	ND	95
17964	CB5 W	W	ND,i	ND	ND	ND	ND	ND	102
17977	CB8 @ 11'	S	ND	ND	ND	ND	ND	ND	96
17979	CB8 W	W	ND,i	ND	ND	ND	ND	ND	105
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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Edward Hamilton, Lab Director

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Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #189-1541; Clarks-Menlo Park	Date Sampled: 08/23/99
		Date Received: 08/24/99
	Client Contact: Jacquelyn Jones	Date Extracted: 09/09-09/10/99
	Client P.O:	Date Analyzed: 09/09-09/10/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
17969	CB6W	W	ND	ND	ND	ND	ND	1.3	102
17974	CB7W	W	ND	ND	ND	ND	ND	ND	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compoundshaving broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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Cambria Environmental Technology	Client Project ID: #189-1541; Clarks-Menlo Park	Date Sampled: 08/23/99
1144 65th Street, Suite C		Date Received: 08/24/99
Oakland, CA 94608	Client Contact: Jacquelyn Jones	Date Extracted: 08/24-09/01/99
	Client P.O:	Date Analyzed: 08/25-09/01/99

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
17944	CB2 @ 7'	S	140,e	103
17948	CB2 W	W	370,d/b,i	116
17950	CB3 @ 11'	S	130,e,g	108
17953	CB3 W	W	3500,d,g,i	97
17961	CB5 @ 7'	S	ND	109
17964	CB5 W	W	220,g,i	105
17977	CB8 @ 11'	S	ND	107
17979	CB8 W	W	62,g,b,i	118
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (stoddard solvent?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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Cambria Environmental Technology	Client Project ID: #189-1541; Clarks-Menlo Park	Date Sampled: 08/23/99
1144 65th Street, Suite C		Date Received: 08/24/99
Oakland, CA 94608	Client Contact: Jacquelyn Jones	Date Extracted: 09/09/99
	Client P.O:	Date Analyzed: 09/09-09/10/99

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
17969	CB6W	W	ND	98
17974	CB7W	W	630,g	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #189-1541; Clarks-Menlo Park	Date Sampled: 08/23/99
		Date Received: 08/24/99
	Client Contact: Jacquelyn Jones	Date Extracted: 08/24/99
	Client P.O:	Date Analyzed: 08/25/99

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
17977	CB8 @ 11'	S	ND
17979	CB8 W	W	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.

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Cambria Environmental Technology	Client Project ID: #189-1541; Clarks-Menlo Park	Date Sampled: 08/23/99
1144 65th Street, Suite C		Date Received: 08/24/99
Oakland, CA 94608	Client Contact: Jacquelyn Jones	Date Extracted: 08/24/99
	Client P.O:	Date Analyzed: 08/25/99

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	17977	17979
Client ID	CB8 @ 11'	CB8 W
Matrix	S	W
Compound	Concentration*	
Bromodichloromethane	ND	ND
Bromoform[b]	ND	ND
Bromomethane	ND	ND
Carbon Tetrachloride[c]	ND	ND
Chlorobenzene	ND	ND
Chloroethane	ND	ND
2-Chloroethyl Vinyl Ether[d]	ND	ND
Chloroform[e]	ND	ND
Chloromethane	ND	ND
Dibromochloromethane	ND	ND
1,2-Dichlorobenzene	ND	ND
1,3-Dichlorobenzene	ND	ND
1,4-Dichlorobenzene	ND	ND
Dichlorodifluoromethane	ND	ND
1,1-Dichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
cis 1,2-Dichloroethene	ND	ND
trans 1,2-Dichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
cis 1,3-Dichloropropene	ND	ND
trans 1,3-Dichloropropene	ND	ND
Methylene Chloride[f]	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND
Tetrachloroethene	ND	ND
1,1,1-Trichloroethane	ND	ND
1,1,2-Trichloroethane	ND	ND
Trichloroethene	ND	ND
Trichlorofluoromethane	ND	ND
Vinyl Chloride[g]	ND	ND
% Recovery Surrogate	92	101
Comments		i

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

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		Date Received: 08/24/99
	Client Contact: Jacquelyn Jones	Date Extracted: 08/24-09/02/99
	Client P.O:	Date Analyzed: 08/26-09/02/99

Lead*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
17944	CB2 @ 7'	S	TTLC	9.5	102
17948	CB2 W	W	Dissolved	ND	NA
17950	CB3 @ 11'	S	TTLC	13	98
17953	CB3 W	W	Dissolved	ND	NA
17961	CB5 @ 7'	S	TTLC	9.8	99
17964	CB5 W	W	Dissolved	ND	NA
17977	CB8 @ 11'	S	TTLC	4.2	99
17979	CB8 W	W	Dissolved	ND	NA
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	3.0 mg/kg	
		W	Dissolved	0.005 mg/L	
		---	STLC,TCLP	0.2 mg/L	

* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L

+Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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		Date Received: 08/24/99
	Client Contact: Jacquelyn Jones	Date Extracted: 08/24/99
	Client P.O:	Date Analyzed: 09/08-09/09/99

LUFT Metals*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction°	Cadmium	Chromium	Lead	Nickel	Zinc	% Recovery Surrogate
17977	CB8 @ 11'	S	TTLC	ND	31	ND	33	39	96
17979	CB8 W	W	Dissolved	0.010	0.018	ND	0.29	0.090	NA
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	0.5 mg/kg	0.5	3.0	2.0	1.0	
		W	TTLC	0.005 mg/L	0.005	0.005	0.05	0.05	
		---	STLC, TCLP	0.01 mg/L	0.05	0.2	0.05	0.05	

* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

+ Lead is analysed using EPA method 6010 (ICP)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/25/99 Matrix: WATER

Analyte	Concentration (ug/L) Sample (#17000)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	94.4	98.4	100.0	94.4	98.4	4.2
Benzene	0.0	8.4	9.2	10.0	84.0	92.0	9.1
Toluene	0.0	8.9	9.7	10.0	89.0	97.0	8.6
Ethyl Benzene	0.0	9.3	10.1	10.0	93.0	101.0	8.2
Xylenes	0.0	27.9	30.4	30.0	93.0	101.3	8.6
TPH(diesel)	0.0	8321	8383	7500	111	112	0.7
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = ((MS - MSD) / (MS + MSD))x 2 x 100

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/09/99 Matrix: WATER

Analyte	Concentration (ug/L) Sample (#18261)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	100.0	98.0	100.0	100.0	98.0	2.0
Benzene	0.0	10.0	9.7	10.0	100.0	97.0	3.0
Toluene	0.0	9.7	9.6	10.0	97.0	96.0	1.0
Ethyl Benzene	0.0	9.8	9.7	10.0	98.0	97.0	1.0
Xylenes	0.0	28.2	28.8	30.0	94.0	96.0	2.1
TPH(diesel)	0.0	7509	8081	7500	100	108	7.3
TRPH (oil & grease)	0	23508	23467	23700	99	99	0.2

% Rec. = (MS - Sample) / amount spiked x 100

RPD = ((MS - MSD) / (MS + MSD))x 2 x 100

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/25/99 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#11787)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.103	2.092	2.03	104	103	0.5
Benzene	0.000	0.198	0.210	0.2	99	105	5.9
Toluene	0.000	0.216	0.228	0.2	108	114	5.4
Ethylbenzene	0.000	0.220	0.226	0.2	110	113	2.7
Xylenes	0.000	0.634	0.654	0.6	106	109	3.1
TPH(diesel)	0	330	326	300	110	109	1.2
TRPH (oil and grease)	0.0	23.4	23.6	20.8	113	113	0.9

% Rec. = (MS - Sample) / amount spiked x 100

RPD =((MS - MSD) / (MS + MSD))x 2 x 100

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QC REPORT FOR EPA 8010/8020/EDB

Date: 08/25/99 Matrix: WATER

Analyte	Concentration (ug/L)			% Recovery		
	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0.0	8.5	8.6	10.0	85	86	1.2
Trichloroethene	0.0	8.3	8.5	10.0	83	85	2.4
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0.0	9.0	9.2	10.0	90	92	2.2
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD =((MS - MSD) / (MS + MSD)) x 2 x 100

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 08/25/99-08/26/99 Matrix: SOIL

Analyte	Concentration (ug/kg)				% Recovery		
	Sample (#11787)	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0	92	86	100	92	86	6.7
Trichloroethene	0	98	88	100	98	88	10.8
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	103	87	100	103	87	16.8
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR ICP and/or AA METALS

Date: 08/26/99-08/27/99 Matrix: SOIL

Extraction: TTLC

Analyte	Concentration (mg/kg,mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD	Spiked	MS	MSD	
Total Lead	0.0	5.12	5.18	5.0	102	104	1.1
Total Cadmium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Chromium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nickel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Zinc	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TCLP Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR ICP and/or AA METALS

Date: 09/09/99-09/10/99 Matrix: SOIL

Extraction: TTLC

Analyte	Concentration (mg/kg,mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD	Spiked	MS	MSD	
Total Lead	0.0	4.87	4.86	5.0	97	97	0.1
Total Cadmium	0.0	5.35	5.42	5.0	107	108	1.3
Total Chromium	0.0	4.64	4.65	5.0	93	93	0.2
Total Nickel	0.0	4.96	5.03	5.0	99	101	1.4
Total Zinc	0.0	5.05	5.08	5.0	101	102	0.7
Total Copper	0.00	4.70	4.75	5.0	94	95	1.1
TCLP Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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1 of 3

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: Jacquelyn Jones Bill To: Cambria
Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608
Tele: (510) 420-0700 Fax: (510) 420-9170
Project #: 189-1541 Project Name: Clark's Menlo Park
Project Location: 1283/1291 Willow Road, Menlo Park
Sampler Signature:

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: TOTM Pb	Oil & Grease	Chlorinated HC 8010	
5 CB1C 3'		9/23/99	845	1	tube		X				X																					17938
CB1C 7'			853	1																												17939
CB1C 11'			900	1																												17940
CB1C 19'			915	1																												17941
CB1W			953	#	#	X					X			#																		17942
CB2C 3'			1005	1	tube		X				X																					17943
CB2C 7'			1020												X	X											X					17944
CB2C 11'			1026																													Hold
CB2C 15'			1040																													Samples
CB2C 19'			1047																													17945
15 CB2W			1110	##	##	X					X			##	X	X											X					17946
CB3C 3'			1117	1	tube		X				X																					17947
CB3C 11'			1139												X	X											X					17948
CB3C 15'			1145																													17949
CB3C 19'			1157																													17950
																																17951
																																17952

Relinquished By:	Date:	Time:	Received By:
	9/23/99	1900	K Cordero 2677
Relinquished By:	Date:	Time:	Received By:
K Cordero	9/24/99	1055	Heidi Rica
Relinquished By:	Date:	Time:	Received By:

ICE/● ✓
GOOD CONDITION ✓
PRESERVATION APPROPRIATE ✓

Remarks:
6 containers 4 VOAs HCl preserved
1 non pres. amber
1 HNO_3 pres. plastic
8 containers 6 VOAs HCl preserved
1 non pres amber
1 HNO_3 pres. plastic

VOAS O&G METALS OTHER

TD. NL

16473 2223

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☑ 5 DAY

Report To: Jacquelyn Jones Bill To: Cambria

Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608

Tele: (510) 420-0700 Fax: (510) 420-9170

Project #: 189-1541 Project Name: Clark's

Project Location: 1289/1291 Willow Road, Menlo Park

Sampler Signature:

	SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: Total Pb	Other: Oil & Grease	Other: Chlorinated HC 8010	
15	CB3W		8/27/99	1224	1	tube	X					X			X	X	X												X					17960
	CB4@3'			1245	1	tube		X				X																						17954
	CB4@7'			1253																														17955
	CB4@11'			1106																														17956
	CB4@15'			111																														17957
	CB4@19			118																														17958
15	CB4W			135	1	tube	X					X			X														X					17961
	CB5@3'			145				X				X				X	X																	17962
	CB5@7'			155																														17963
	CB5@11'			200																														17964
	CB5@15'			210																														17965
110	CB5W			230	1	tube	X					X			X	X	X												X					17966
	CB6@3'			308				X				X																						
	CB6@7'			312																														
	CB6@11			326																														

Relinquished By:	Date:	Time:	Received By:
	8/27/99	9:15	J Rueco 2022
Relinquished By:	Date:	Time:	Received By:
	8/27/99	1200	
Relinquished By:	Date:	Time:	Received By:

Remarks: 8 containers 6 VOAs w/ HCl amber non pres. HNO3 pres. plastic

PRESERVATION APPROPRIATE CONTAINERS ✓ VOAS ✓ O&G METALS OTHER

GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

17953
17954
17955
17956
17957
17958
17959
HOLD
Samples
17960
17961
17962
17963
17964
17965
17966
17967

16473

3 of 3

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

9/9 24 hr
8 9/9 24 hr

Report To: Jacquelyn Jones Bill To: Cambria

Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608

Tele: (510) 420-0700 Fax: (510) 420-9170

Project #: 189-1541 Project Name: Clarks

Project Location: 1283/1291 Willow Road, Menlo Park

Sampler Signature:

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: Oil & Grease	Chlorinated HC 8010			
CB6C 19'		8/23	335	1	tube		X				X																						17968
+5 CB6W			345	*	*	X					X			X	⊗	⊗																	17969
CB7C 3'			400	1	tube		X				X																						17970
CB7C 7'			410	↓	↓		↓				↓																						17971
CB7C 11'			415	↓	↓		↓				↓																						17972
CB7C 16'			421	↓	↓		↓				↓																						17973
+5 CB7W			445	*	*	X					X			X	⊗	⊗																	17974
CB8C 3'			456	1	tube		X				X																						17975
CB8C 7'			500	↓	↓		↓				↓																						17976
CB8C 11'			505	↓	↓		↓				↓					X	X										X	X		X	X		17977*
CB8C 15			575	↓	↓		↓				↓																						
+5 CB8W		↓	540	**	**	X					X			X	⊗	⊗	X	X									X	X		X	X		17978
																																	17979*

Relinquished By:	Date:	Time:	Received By:
	8/23/09	800	
Relinquished By:	Date:	Time:	Received By:
	8/23/09	1240	Heidi Nicca
Relinquished By:	VOAs	O&G	METALS	OTHER	Received By:
	Y				

Remarks:
* 8 containers: 6 VOAs W/HCl, 1 amber unpres, 1 HNO3 pres plastic
⊗ = Add on 9/9 per S.R. 24 hr
** 10 containers: 8 VOAs W/HCl, 1 amb unpres

HOLD Samples

GOOD CONDITION ✓ PRESERVATION APPROPRIATE ✓

CAMBRIA

May 12, 2000

Mr. Greg Smith
San Mateo County
Environmental Health Services Division
County Office Building
455 County Center
Redwood City, California 94063

SAN MATEO COUNTY
ENVIRONMENTAL HEALTH
MAY 16 2000
RECEIVED

Re: **Well Survey Report**
Vacant Property
1283-1291 Willow Road
Menlo Park, California
Cambria Project # 189-1541

Dear Mr. Smith:

On behalf of former property owner Michael Clark, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Well Survey Report* for the above referenced site. As agreed upon in our March 20, 2000 telephone conversation, Cambria conducted a door-to-door well survey to locate water-producing wells within a 700-foot radius from the site. The following presents a summary of the site background, the well survey procedures and results, and conclusions.

SITE BACKGROUND

Site Description: The site is located on the southwestern corner of the intersection of Willow Road and Ivy Drive in Menlo Park, California (Figure 1). The buildings located at the site prior to their 1978 demolition were addressed 1283 to 1291 Willow Road. The site is currently a vacant lot with no structures. The surrounding area is mostly residential.

Phase I Environmental Site Assessment: In April 1995, CET Environmental Services of Emeryville, California conducted a Phase I investigation of the site at the request of Mr. Ralph Romero. CET reported the following: In 1955, Tidewater Associates Oil Company of San Francisco, California installed three underground storage tanks (USTs) for a service station at 1291 Willow Road, Menlo Park, California. One 4,000-gallon, one 6,000-gallon and one 280-gallon waste oil tank were installed. This service station was demolished in 1978 by Mr. Henry Rainer, the previous property owner. Mr. Rainer reported that the 4,000 and 6,000-gallon USTs were removed during the building demolition, but was uncertain whether the 280-gallon waste oil tank had been removed. There are no records or knowledge of soil samples collected during the tank removal. Neither the Menlo Park Fire Department, City of Menlo Park Building Department, or the San Mateo County Department of Health Services maintain records

Oakland, CA
San Ramon, CA
Sonoma, CA
Portland, OR

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

documenting UST removals prior to approximately 1984 to collaborate this UST site history. [1] However, no evidence of the waste oil tank was noted during a geophysical survey completed for this investigation in August 1999.

Phase II Site Assessment: Cambria conducted a subsurface investigation and geophysical survey for the referenced site in August 1999 to assess the site subsurface conditions, collect soil and groundwater samples, and confirm that the 280-gallon waste oil tank had been removed from the site. The geophysical survey confirmed that the 280-gallon waste oil tank had been removed from the site. No methyl tert-butyl ether (MTBE) or benzene were detected in any soil or groundwater samples collected. Maximum concentrations of 3,500 parts per billion (ppb) total petroleum hydrocarbons as diesel (TPHd) and 910 ppb total petroleum hydrocarbons as gasoline (TPHg) were detected in grab groundwater samples collected from boring CB-3 advanced in the former source area. Soil and groundwater samples collected from boring CB-8, advanced to characterize the former waste oil tank pit, detected no TPHg, BTEX, MTBE, oil and grease, or volatile halocarbons. Although 630 µg/L TPHd and 1.3 µg/L xylenes were detected in downgradient borings CB-6 and CB-7, these concentrations are well below the common acceptable regulatory thresholds. Cambria's August 1999 *Subsurface Investigation Report* data tables, soil boring location map, and boring logs are presented as Attachment A.

Groundwater Flow Direction: Depth to groundwater is generally from 8-10 feet bgs flowing towards the north/northwest and the Ravenswood Slough. The slough and nearby wetlands are located approximately located 2600 feet north of the site.

WELL SURVEY PROCEDURES

Cambria calculated the seepage velocity, determined the degradation rate of subsurface contaminants and provided rationale to justify a 700-foot well survey radius (Attachment B). Ms. Gail Lee of the SMCEHSD verbally approved this well survey radius during a telephone conversation on March 20, 2000. Cambria Geologist Josh Bergstrom conducted the door-to-door well surveys on March 22 and April 4, 2000. Self-addressed stamp envelopes containing well survey forms were left at the locations where there was no response. After waiting two weeks for a response from the property owners, Cambria tabulated the findings and reviewed the well survey data (Table 1).

[1] *Phase I Environmental Assessment*, CET Environmental Services, Inc., Emeryville, California, April 28, 1995

WELL SURVEY RESULTS

Four wells were reported in the survey radius during the door-to-door well surveys (Figure 2). No other wells were reported within the 700-foot radius of the site. According to the property owner, well # 4, located at 1304 Carlton, was abandoned in 1970. One domestic water-well (# 1) was discovered at 795 Ivy, Menlo Park, California. However, according to the current resident, the well is not a drinking water source for the site and is not used. The two remaining wells discovered are located at 1227 Madera (# 2), and 1260 Madera (# 3), Menlo Park, California. The type and use of the up-gradient well located at 1227 Madera is unknown because the property owner refused to return the well survey questionnaire and was not interested in sampling of this well. The well at 1260 Madera was reported by the owner to be inactive since approximately 1970.

CONCLUSIONS

Of the four wells reported during the well survey, the two wells (# 1 and # 3) previously used for domestic use are located approximately 660 feet west and cross/up-gradient of the site (Figure 2). One abandoned well (# 4) was reported northwest of the site, and well # 2 was located up-gradient of the site, slightly outside of the well survey radius. Therefore, based on the well locations and the likely groundwater flow direction, the residual hydrocarbons at 1283-1291 Willow Road, Menlo Park, California will not likely impact water wells within the radius of this well survey.

CLOSURE REQUEST

Based on our August 1999 subsurface investigation results and the findings of the door-to-door 700-foot radius well survey, Cambria respectfully requests regulatory case closure of the site located at 1283-1291 Willow Road, Menlo Park, California.

CLOSING

Please call John Riggi at (510) 420-3340 if you have any questions or comments regarding this report.

Sincerely,
Cambria Environmental Technology, Inc.

John A. Riggi
Project Geologist

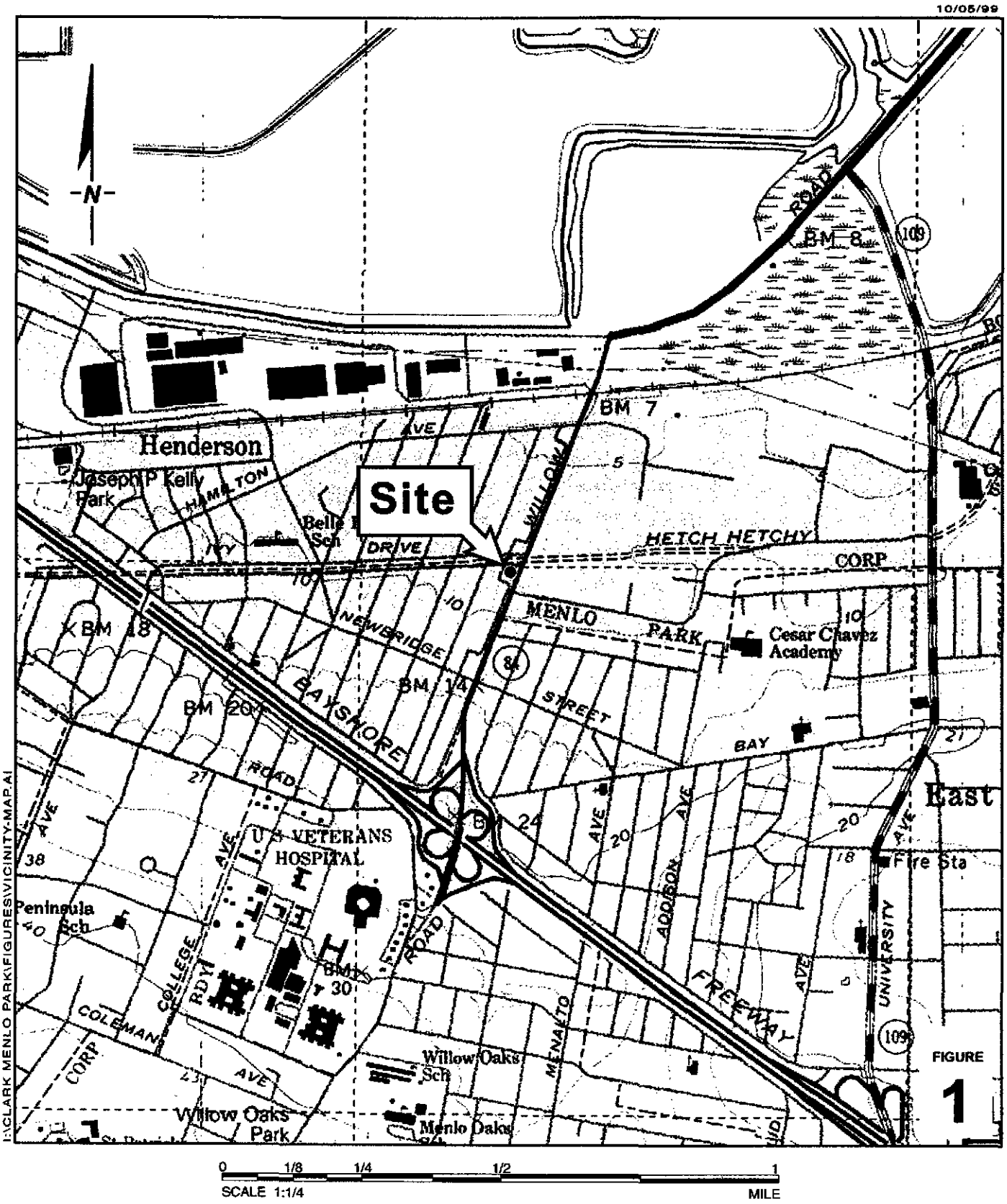
David Elias, R.G.
Senior Geologist

Figures: 1- Vicinity Map
2- Well Location Map

Table: 1- Well Survey Results

Attachments: A - Cambria's August 1999 Data Tables, Boring Location Map and Boring Logs
B – Well Survey Radius Rationale

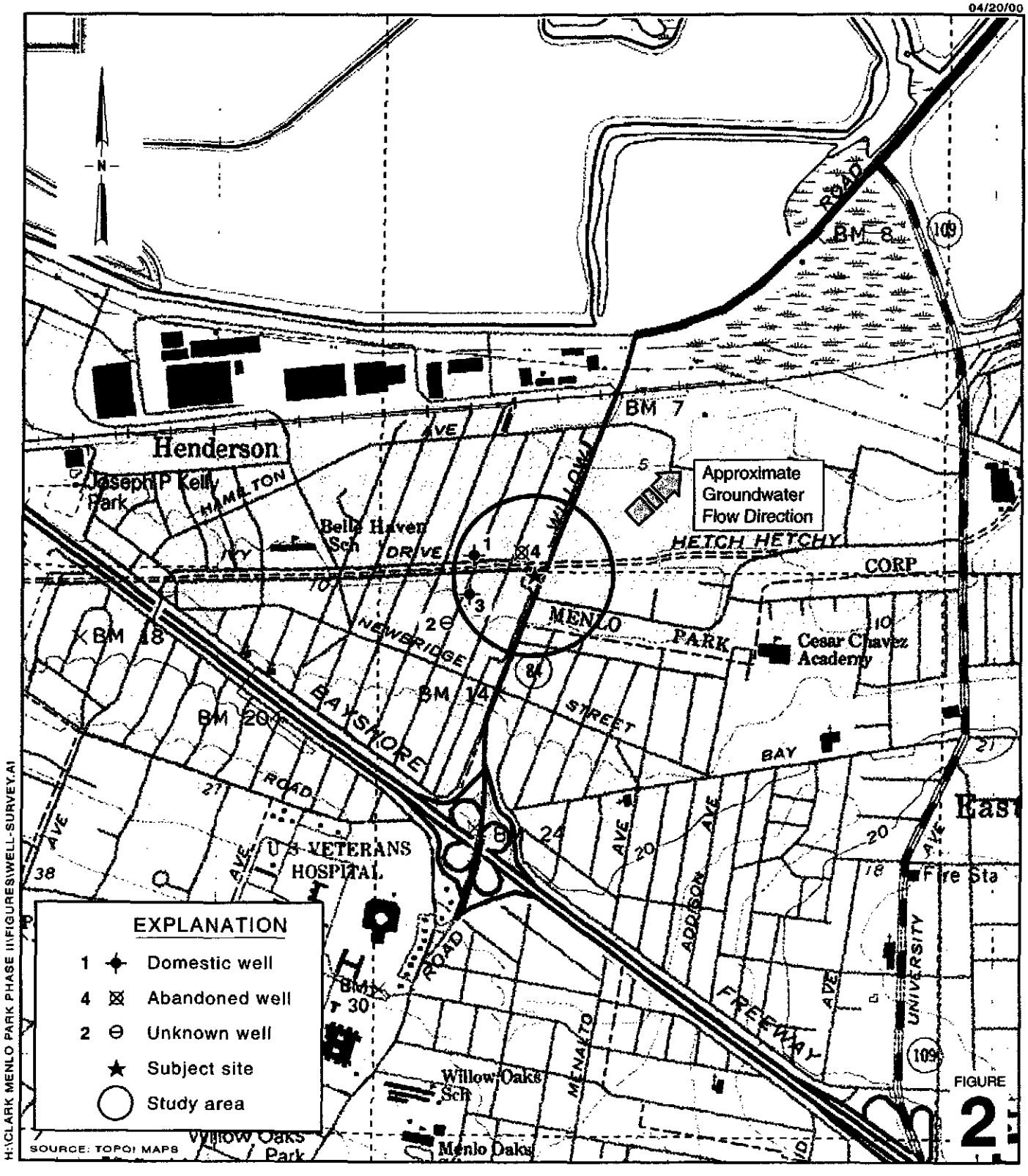
cc: Mr. Michael Clark, 1355 Hayne Road, Hillsboro, California 94010
Mr. Saeid Samadi, 227 Dover Street, Los Gatos, California 95032



Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Vicinity Map



H:\CLARK MENLO PARK PHASE II\FIGURES\WELL-SURVEY.AI

FIGURE 2

Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Area Well Survey
700 Foot Radius

CAMBRIA

Table 1. WELL SURVEY RESULTS

Vacant Property, 1283-1291 Willow Road, Menlo Park, California

Address	Well? Y / N Unknown	Well Depth	Well Diam.	Well Use	Depth to Water	Nobody Home Flyer Left at Door	Respond to Flyer Y/N	Well Location/Comments
914 Alberni	Unknown					X	N	
915 Alberni	Unknown					X	N	
923 Alberni	Unknown					X	N	
925 Alberni	Unknown					X	N	
935 Alberni	N							
946 Alberni	N							
947 Alberni	Unknown					X	N	
1215 Carlton	Unknown					X	N	
1216 Carlton	N							
1219 Carlton	N							
1220 Carlton	Unknown					X	N	
1221 Carlton	Unknown					X	N	
1223 Carlton	Unknown					X	N	
1224 Carlton	Unknown					X	N	
1227 Carlton	N							
1228 Carlton	Unknown					X	N	
1230 Carlton	Unknown					X	N	
1231 Carlton	Unknown					X	N	
1232 Carlton	Unknown					X	N	
1234 Carlton	Unknown					X	N	
1235 Carlton	Unknown					X	N	
1237 Carlton	Unknown					X	N	
1238 Carlton	Unknown					X	N	
1242 Carlton	Unknown					X	N	
1243 Carlton	N							
1246 Carlton	Unknown					X	N	
1247 Carlton	Unknown					X	N	
1250 Carlton	Unknown					X	N	
1252 Carlton	Unknown					X	N	
1254 Carlton	N							
1255 Carlton	N							
1256 Carlton	Unknown					X	N	
1259 Carlton	N							
1260 Carlton	Unknown					X	N	
1264 Carlton	Unknown					X	N	
1268 Carlton	Unknown					X	N	
1269 Carlton	N							
1271 Carlton	Unknown					X	N	
1272 Carlton	N							
1275 Carlton	Unknown					X	N	
1276 Carlton	Unknown					X	N	
1279 Carlton	N							
1280 Carlton	Unknown					X	N	
1284 Carlton	Unknown					X	N	
1301 Carlton	N							
1304 Carlton	Y (# 4)							Well abandoned in approximately. 1970, according to property owner.
1305 Carlton	Unknown					X	N	
1308 Carlton	N							

CAMBRIA

Table 1. WELL SURVEY RESULTS

Vacant Property, 1283-1291 Willow Road, Menlo Park, California

Address	Well? Y / N Unknown	Well Depth	Well Diam.	Well Use	Depth to Water	Nobody Home Flyer Left at Door	Respond to Flyer Y/N	Well Location/Comments
1312 Carlton	Unknown					X	Y	
1313 Carlton	N							
1316 Carlton	Unknown					X	N	
1317 Carlton	N							
1320 Carlton	Unknown					X	N	
1321 Carlton	Unknown					X	N	
1325 Carlton	Unknown					X	N	
1331 Carlton	Unknown					X	N	
1332 Carlton	N							
1335 Carlton	N							
1338 Carlton	Unknown					X	N	
1339 Carlton	N							
1349 Carlton	N							
1351 Carlton	N							
1353 Carlton	Unknown					X	N	
1367 Carlton	Unknown					X	N	
720 Ivy	Unknown					X	N	
730 Ivy	Unknown					X	N	
735 Ivy	N							
760 Ivy	N							
765 Ivy	Unknown					X	N	
775 Ivy	Unknown					X	N	
780 Ivy	Unknown					X	N	
781 Ivy	Unknown					X	N	
795 Ivy	Y (# 1)	Unknown	Unknown	Domestic	Unknown			Well not used according to resident.
820 Ivy	Unknown					X	N	
1212 Madera	N							
1216 Madera	N							
1220 Madera	Unknown					X	N	
1223 Madera	Unknown					X	N	
1224 Madera	N							
1227 Madera	Y (# 2)	Unknown	Unknown	Unknown	Unknown			Property owner refused to participate, not intersted in well sampling.
1231 Madera	N							
1235 Madera	Unknown					X	N	
1239 Madera	Unknown					X	N	
1243 Madera	Unknown					X	N	
1247 Madera	Unknown					X	N	
1251 Madera	N							
1255 Madera	N							
1259 Madera	Unknown					X	N	
1260 Madera	Y (# 3)	Unknown	Unknown	Domestic	Unknown			Not used since approximately 1970, according to property owner.
1263 Madera	Unknown					X	N	
1264 Madera	N							
1268 Madera	Unknown					X	N	
1272 Madera	N							
1304 Madera	N							
1307 Madera	N							
1308 Madera	N							
1311 Madera	Unknown					X	N	

CAMBRIA

Table 1. WELL SURVEY RESULTS

Vacant Property, 1283-1291 Willow Road, Menlo Park, California

Address	Well? Y / N Unknown	Well Depth	Well Diam.	Well Use	Depth to Water	Nobody Home Flyer Left at Door	Respond to Flyer Y/N	Well Location/Comments
1312 Madera	Unknown					X	N	
1315 Madera	N							
1316 Madera	Unknown					X	N	
1319 Madera	N							
1320 Madera	Unknown					X	N	
1322 Madera	Unknown					X	N	
1323 Madera	Unknown					X	N	
1326 Madera	N							
1327 Madera	N							
1328 Madera	N							
1330 Madera	Unknown					X	N	
1332 Madera	Unknown					X	N	
1334 Madera	N							
1335 Madera	Unknown					X	N	
1336 Madera	Unknown					X	N	
1339 Madera	N							
1340 Madera	N							
1343 Madera	Unknown					X	N	
1344 Madera	N							
1346 Madera	Unknown					X	N	
1347 Madera	Unknown					X	N	
1348 Madera	Unknown					X	N	
1351 Madera	Unknown					X	N	
1352 Madera	N							
1355 Madera	Unknown					X	N	
1356 Madera	Unknown					X	N	
1360 Madera	Unknown					X	N	
950 O'Brien	N							
960-970 O'Brien	N							
965 O'Brien	Unknown					X	N	No response to phone inquiry.
980 O'Brien	Unknown					X	N	
985 O'Brien	N							
990 O'Brien	Unknown					X	N	
985-1001 O'Brien	N							
1010 O'Brien	Unknown					X	N	
1020 O'Brien	Unknown							
1269 Saratoga	Unknown					X	N	
1286 Saratoga	N							
1304 Saratoga	Unknown					X	N	
1240 Sevier	N							
1244 Sevier	Unknown					X	N	
1247 Sevier	Unknown					X	N	
1248 Sevier	N							
1251 Sevier	Unknown					X	N	
1252 Sevier	Unknown					X	N	
1256 Sevier	Unknown					X	N	
1307 Sevier	Unknown					X	N	
1311 Sevier	N							
1312 Sevier	N							

CAMBRIA

Table 1. WELL SURVEY RESULTS

Vacant Property, 1283-1291 Willow Road, Menlo Park, California

Address	Well? Y / N Unknown	Well Depth	Well Diam.	Well Use	Depth to Water	Nobody Home Flyer Left at Door	Respond to Flyer Y/N	Well Location/Comments
1315 Sevier	Unknown					X	N	
1316 Sevier	Unknown					X	N	
1319 Sevier	N							
1320 Sevier	N							
1323 Sevier	Unknown					X	N	
1324 Sevier	N							
1327 Sevier	Unknown					X	N	
1328 Sevier	N							
1331 Sevier	Unknown					X	N	
1332 Sevier	Unknown					X	N	
1335 Sevier	Unknown					X	N	
1336 Sevier	N							
1340 Sevier	Unknown					X	N	
1343 Sevier	Unknown					X	N	
1344 Sevier	N							
1348 Sevier	N							
1351 Sevier	Unknown					X	N	
1354 Sevier	Unknown					X	N	
1355 Sevier	Unknown					X	N	
1221-1385 Willow	N							The Gateway Garden Apartments
1305 Willow	N							
1320 Willow	Unknown							Vacant building
1340 Willow	Unknown							Vacant building
1345 Willow	N							
1350-1380 Willow	Unknown					X	Y	No wells onsite.

ATTACHMENT A

Data Tables, Boring Location Map, and Boring Logs

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Table 1. Groundwater Hydrocarbon Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Date	Oil and Grease	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Volatile Halocarbons
		<				(µg/L)				>
CB-2W	8/23/99	---	370[a,b,c]	100[c,d]	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-3W	8/23/99	---	3,500[b,c,e]	910[c,f,g]	<0.5	0.92	3.4	2.7	<5.0	---
CB-5W	8/23/99	---	220[c,e]	<50[c]	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-6W	8/23/99	---	<50	<50	<0.5	<0.5	<0.5	1.3	<5.0	---
CB-7W	8/23/99	---	630[e]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-8W	8/23/99	<0.005	62[a,b,c]	<50[c]	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5

Notes:

Oil and grease by EPA methods 5520

TPHd = Total extractible petroleum hydrocarbons as diesel by EPA method Modified 8015.

TPHg = Total extractible petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

Volatile halocarbons by EPA method 601 or 8010.

Analytical Laboratory Notes:

a = Diesel range compounds are significant; no recognizable pattern.

b = Gasoline range compounds are significant.

c = Liquid sample contains greater than ~5 vol. % sediment.

d = Strongly aged gasoline or diesel range compounds are significant.

e = Oil range compounds are significant.

f = Heavier gasoline range compounds are significant (aged gasoline?).

g = No recognizable pattern.

CAMBRIA

Table 2. Groundwater Metals Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Date	Dissolved Lead	LUFT Metals			
			Cadmium	Chromium	Nickel	Zinc
		(µg/l)				
CB-2W	8/23/99	<5.0	---	---	---	---
CB-3W	8/23/99	<5.0	---	---	---	---
CB-5W	8/23/99	<5.0	---	---	---	---
CB-8W	8/23/99	<5.0	10	18	290	90

Notes:

Dissolved Lead by EPA method 239.2.

LUFT Metals by EPA method 239.2.

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Table 3. Soil Hydrocarbon Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Depth (ft bgs)	Sample Date	Oil and Grease	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Volatile Halocarbons
			<			(mg/kg)					>
CB-2 @7'	7.0	8/23/99	---	140[a]	180[b]	<0.005	0.051	<0.02	0.059	<0.10	---
CB-3 @11'	11.0	8/23/99	---	130[a,c]	96[d,e]	<0.01	<0.01	<0.01	<0.01	<0.20	---
CB-5 @7'	7.0	8/23/99	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
CB-8 @11'	11.0	8/23/99	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005

Notes:

bgs = below ground surface.

Oil and grease by EPA methods 5520

TPHd = Total purgeable petroleum hydrocarbons as diesel by EPA method Modified 8015.

TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

Volatile halocarbons by EPA method 601 or 8010.

Analytical Laboratory Notes:

a = Medium boiling point pattern that does not match diesel (stoddard solvent?).

b = Strongly aged gasoline or diesel range compounds are significant.

c = Oil range compounds are significant.

d = TPH pattern that does not appear to be derived from gasoline (stoddard solvent?).

e = No recognizable pattern.

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Table 4. Soil Metals Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Depth (ft bgs)	Sample Date	LUFT Metals (mg/kg)				
			Lead	Cadmium	Chromium	Nickel	Zinc
CB-2 @7'	7.0	8/23/99	9.5	---	---	---	---
CB-3 @11'	11.0	8/23/99	13	---	---	---	---
CB-5 @7'	7.0	8/23/99	9.8	---	---	---	---
CB-8 @11'	11.0	8/23/99	4.2 (<3.0)	<0.5	31	33	39

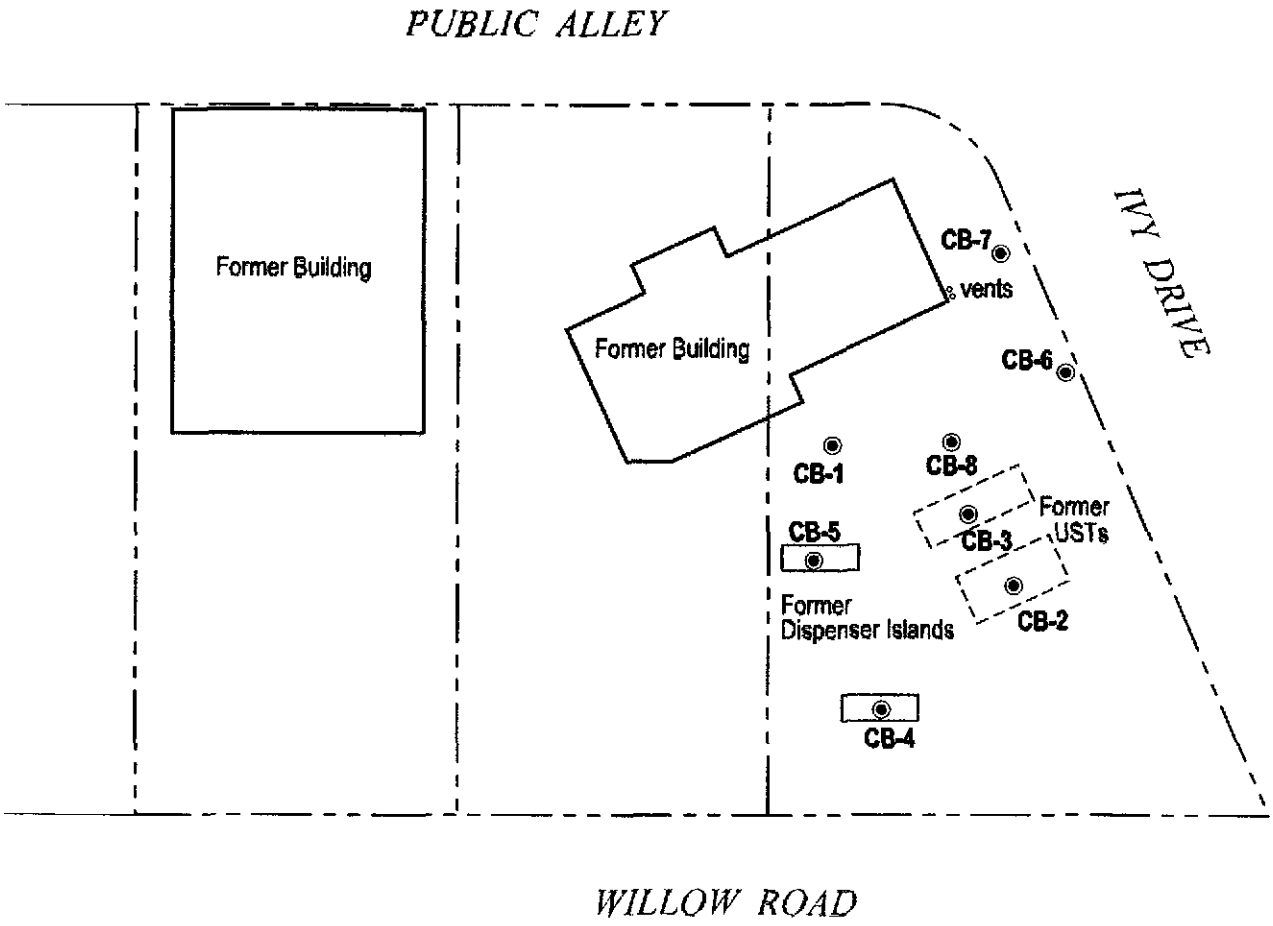
Notes:

bgs = below ground surface.

Lead by EPA method 6010.

LUFT Metals by EPA method 6010/200.7.

x(y) = Concentration in parenthesis indicates sample was analyzed for analyte more than once.



EXPLANATION

CB-1 ◉ Soil boring location

N

0 15 30

Scale (ft)

FIGURE

2

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Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map

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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-1
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.5 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 48' S, 6' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
							CONCRETE.	0.5	Portland Type I/II
					SP		**Gravelly SAND**; (SP); brown; dry; 5% clay, 5% silt, 50% sand, 40% gravel; high estimated permeability.	2.0	
		CB-1 @3'		5	CL		**Silty Gravelly CLAY**; (CL); dark brown; dry; 35% clay, 20% silt, 10% fine to medium grained sand, 35% gravel; medium plasticity; low estimated permeability.	6.5	
		CB-1 @7'			ML		**Sandy SILT**; (ML); dark brown; dry to moist; 10% clay, 45% silt, 10% sand, 35% gravel; low plasticity; low to moderate estimated permeability.		
		CB-1 @11'		10	SP		**Gravelly SAND**; (SP); dark brown; moist to wet; 5% clay, 5% silt, 55% fine to coarse grained sand, 35% gravel; high estimated permeability.	10.0	
				15			@ 15' - as above; wet; 10% silt, 60% fine to coarse grained sand, 30% fine gravel.	17.5	
		CB-1 @19'			ML		**SILT with Clay**; (ML); light brown; damp to wet; 15% clay, 70% silt, 10% sand, 5% gravel; low plasticity; moderate estimated permeability.	20.0	
				20	SP		**Gravelly SAND**; (SP); light brown; wet; 5% clay, 5% silt, 55% fine to coarse grained sand, 35% gravel; high estimated permeability.	21.0	
					ML		**SILT with Clay**; (ML); light brown; damp to wet; 15% clay, 70% silt, 10% sand, 5% gravel; low plasticity; moderate estimated permeability.	23.0	
					SP		**Gravelly SAND**; (SP); light brown; wet; 5% clay, 5% silt, 55% fine to coarse grained sand, 35% gravel; high estimated permeability.	24.0	Bottom of Boring @ 24 ft

BOR LOG (TPH-G) H:\CLARK-~1\GINT\CLARK-MP.GPJ DEFAULT.GDT 5/9/00

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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-2
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 27' S, 27' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
					CL		**Silty Gravelly CLAY**; (CL); dark brown; dry; 35% clay, 25% silt, 10% sand, 35% gravel; medium plasticity; low to moderate estimated permeability.	1.5	
					SP		**Gravelly SAND**; (SP); white to tan; dry; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	2.5	
		CB-2 @3'			ML		**Clayey SILT with Sand**; (ML); black to dark brown; dry; 20% clay, 60% silt, 15% very fine to fine grained sand, 5% fine gravel; low plasticity; low estimated permeability.	6.0	
180		CB-2 @7'		5	ML		**Clayey SILT**; (ML); black to dark brown; dry; 20% clay, 65% silt, 5% sand, 10% gravel; low plasticity; low estimated permeability.	8.5	
		CB-2 @11'		10	ML		**Gravelly SILT**; (ML); dark brown; damp to wet; 10% clay, 60% silt, 10% sand, 20% gravel; low plasticity; low to moderate estimated permeability. ▼	12.0	◄ Portland Type I/II
					SP		**Gravelly SAND**; (SP); brown; wet; 10% clay, 10% silt, 50% sand, 30% gravel; high estimated permeability.	14.5	
		CB-2 @15'		15	ML		**SILT with Clay**; (ML); brown; damp to wet; 15% clay, 70% silt, 10% sand, 5% gravel; low plasticity; moderate estimated permeability.	16.5	
		CB-2 @19'			SP		**Gravelly SAND**; (SP); brown; wet; 10% clay, 10% silt, 50% sand, 30% gravel; high estimated permeability.	20.0	Bottom of Boring @ 20 ft
				20					

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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-3
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	12.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 33' S, 13' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
					ML		**Gravelly SILT**; (ML); brown; dry; 10% clay, 60% silt, 10% sand, 20% gravel; no plasticity; moderate estimated permeability.		
		CB-3 @3'						4.0	
				5	ML		**Gravelly SILT with Sand**; (ML); brown; dry; 5% clay, 60% silt, 15% sand, 20% gravel; no plasticity; moderate estimated permeability.		
							@ 9' - moist.	9.5	
				10	SP		**Gravelly SAND**; (SP); brown; moist; 5% silt, 65% sand, 30% gravel; high estimated permeability.	10.5	Portland Type I/II
96		CB-3 @11'			ML		**Clayey SILT**; (ML); black; moist; 20% clay, 65% silt, 5% sand, 10% gravel; low plasticity; low estimated permeability.	12.0	
					SP		**Gravelly SAND**; (SP); brown; wet; 5% silt, 65% sand, 30% gravel; high estimated permeability.		
				15				15.0	
		CB-3 @15'			ML		**Sandy SILT**; (ML); light brown; wet; 60% silt, 35% fine grained sand, 5% gravel; low plasticity; low to moderate estimated permeability.	17.0	
					SP		**Gravelly SAND**; (SP); light brown; wet; 5% silt, 65% sand, 30% gravel; high estimated permeability.	19.0	
		CB-3 @19'			ML		**Sandy SILT**; (ML); light brown; wet; 60% silt, 35% fine grained sand, 5% gravel; no plasticity; low to moderate estimated permeability.	20.0	Bottom of Boring @ 20 ft
				20					

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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-4
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	15.0 ft (23-Aug-99) ▽
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99) ▼
REMARKS	Located 68' S, 47' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
					SP		**Gravelly SAND**; (SP); brown; dry; 10% silt, 60% sand, 30% gravel; high estimated permeability.	2.0	
		CB-4 @3'		5	CL		**Silty CLAY with Gravel**; (CL); dark brown; dry; 45% clay, 35% silt, 5% sand, 15% gravel; medium plasticity; low estimated permeability.		
		CB-4 @7'						8.5	
					SP		**Gravelly SAND**; (SP); light brown; dry; 10% silt, 70% sand, 20% gravel; high estimated permeability. ▼	10.0	Portland Type I/II
				10	ML		**Clayey SILT with Gravel**; (ML); tan; dry; 35% clay, 45% silt, 5% sand, 15% gravel; low plasticity; low estimated permeability.	11.0	
		CB-4 @11'			ML			12.0	
					SP		**SILT**; (ML); light brown; dry; 10% clay, 80% silt, 10% fine grained sand; low plasticity; moderate estimated permeability.	13.0	
					ML		**Gravelly SAND**; (SP); light brown; dry; 10% silt, 70% sand, 20% gravel; high estimated permeability. ▽		
		CB-4 @15'		15			**SILT**; (ML); brown; damp; 10% clay, 80% silt, 10% fine grained sand; low plasticity; moderate estimated permeability.	16.0	
					SP		**SAND**; (SP); brown; wet; 5% clay, 10% silt, 75% sand, 10% gravel; high estimated permeability.	18.5	
		CB-4 @18'			ML		**SILT**; (ML); dark brown; wet; 10% clay, 80% silt, 10% fine grained sand; low plasticity; moderate estimated permeability.	20.0	Bottom of Boring @ 20 ft
				20					

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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-5
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 70' S, 18' E of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
							CONCRETE.	0.5	Portland Type I/II
					SP		**Gravelly SAND**; (SP); brown; dry; 5% clay, 15% silt, 50% sand, 30% gravel; high estimated permeability.	2.0	
		CB-5 @3'			CL		**Silty CLAY**; (CL); black; dry; 55% clay, 40% silt, 5% sand, 10% gravel; medium plasticity; low estimated permeability.	4.5	
				5	SP		**Gravelly SAND**; (SP); light tan; dry; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	5.5	
<1.0		CB-5 @7'			CL		**Silty CLAY with Gravel**; (CL); brown; moist; 40% clay, 35% silt, 10% sand, 15% gravel; medium plasticity; low estimated permeability.		
				10	GP		▼	10.0	
					GP		**Sandy GRAVEL**; (GP); brown; wet; 10% clay, 35% sand, 55% gravel; high estimated permeability.	10.5	
		CB-5 @11'			SM		**Silty SAND**; (SM); brown; wet; 5% clay, 35% silt, 60% sand; no plasticity; moderate estimated permeability.	12.0	
					CL		**Silty CLAY**; (CL); black; damp; 50% clay, 40% silt, 5% sand, 5% gravel; medium plasticity; low estimated permeability.	12.5	
					SM		**Silty SAND**; (SM); brown; wet; 5% clay, 35% silt, 60% sand; no plasticity; moderate estimated permeability.	14.5	
		CB-5 @15'		15	GP		**Sandy GRAVEL**; (GP); brown; wet; 10% silt, 35% sand, 55% gravel; high estimated permeability.	16.0	Bottom of Boring @ 16 ft

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BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-6
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99) ▽
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99) ▼
REMARKS	Located 9' S, 4' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
					GP		**Sandy GRAVEL:** (GP); brown; dry; 5% clay, 10% silt, 35% sand, 50% gravel; high estimated permeability.	1.0	
					SP		**SAND:** (SP); brown; dry; 60% sand, 40% gravel; high estimated permeability.	2.5	
		CB-6 @3'			CL		**Silty CLAY:** (CL); black; dry; 50% clay, 40% silt, 5% sand, 5% gravel; medium plasticity; low estimated permeability.	4.0	
					SP		**Gravelly SAND:** (SP); brown; dry; 55% sand, 45% gravel; high estimated permeability.	4.5	
				5	CL		**Silty CLAY:** (CL); dark brown; dry; 50% clay, 40% silt, 5% sand, 5% gravel; medium plasticity; low estimated permeability.	6.0	
		CB-6 @7'			ML		**Gravelly SILT with Clay:** (ML); dark brown; dry; 15% clay, 60% silt, 5% sand, 20% gravel; no plasticity; low to moderate estimated permeability.	9.0	
				10	ML		**Gravelly SILT:** (ML); light brown; dry; 5% clay, 55% silt, 10% sand, 30% gravel; no plasticity; moderate estimated permeability. ▼	10.5	◄ Portland Type I/II
					SP		**Gravelly SAND:** (SP); light brown; wet; 60% sand, 40% gravel; high estimated permeability.	11.0	
		CB-6 @11'			GP		**Sandy GRAVEL:** (GP); brown; wet; 5% clay, 40% sand, 55% gravel; high estimated permeability.		
				15				15.5	
					SP		**Gravelly SAND:** (SP); brown; wet; 60% sand, 40% gravel; high estimated permeability.	16.0	
					GP		**Sandy GRAVEL:** (GP); brown; wet; 5% clay, 40% sand, 55% gravel; high estimated permeability.	18.0	
		CB-6 @19'			ML		**SILT with Sand:** (ML); light brown; wet; 10% clay, 75% silt, 15% very fine grained sand; no plasticity; low to moderate estimated permeability.	20.0	Bottom of Boring @ 20 ft
				20					

BOR LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 5/8/00

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-7
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	10.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	10.00 ft (23-Aug-99)
REMARKS	Located 9' S, 28' W of utility pole on Ivy Drive.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
					SP		**Silty Gravelly SAND:** (SP); brown; dry; 20% silt, 45% sand, 35% gravel; high estimated permeability.	1.0	
					CL		**Silty CLAY:** (CL); black; dry; 45% clay, 40% silt, 10% sand, 5% gravel; medium plasticity; low estimated permeability.		
		CB-7 @3'		5					
								6.0	
					ML		**SILT with Sand:** (ML); brown; dry; 5% clay, 70% silt, 15% sand, 10% gravel; no plasticity; moderate estimated permeability.		
		CB-7 @7'						8.0	
					ML		**Gravelly SILT:** (ML); brown; moist; 5% clay, 60% silt, 10% sand, 25% gravel; no plasticity; moderate estimated permeability.	9.0	
					SP		**Gravelly SAND:** (SP); brown; moist; 5% silt, 55% sand, 40% gravel; high estimated permeability.	10.0	
				10					
		CB-7 @11'			GP		**Sandy GRAVEL:** (GP); brown; wet; 5% clay, 35% sand, 60% gravel; high estimated permeability. @ 13' - as above; 5% silt, 20% sand, 75% gravel up to 2".		
								14.0	
					SP		**Gravelly SAND:** (SP); brown; wet; 5% silt, 55% sand, 40% gravel; high estimated permeability.	15.0	
				15	ML		**SILT:** (ML); brown; wet; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity; moderate estimated permeability.	16.0	
		CB-7 @16'							Bottom of Boring @ 16 ft

Portland Type I/II

BOR LOG (TPH-G) H:\CLARK--1\GINT\CLARK-MP.GPJ DEFAULT.GDT 5/9/00

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Michael Clark	**BORING/WELL NAME**	CB-8
JOB/SITE NAME	Vacant Property	**DRILLING STARTED**	23-Aug-99
LOCATION	1283/1291 Willow Road, Menlo Park, California	**DRILLING COMPLETED**	23-Aug-99
PROJECT NUMBER	189-1541	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	V&W Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	J. Jones	**DEPTH TO WATER (First Encountered)**	9.0 ft (23-Aug-99)
REVIEWED BY	D. Elias, RG# 6584	**DEPTH TO WATER (Static)**	9.00 ft (23-Aug-99)
REMARKS	*Located 32' S, 4' W of utility pole on Ivy Drive.*		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
					SP		**Gravelly SAND**; (SP); brown; dry; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	2.0	
		CB-8 @3'		5	CL		**Silty CLAY with Sand**; (CL); black; dry; 45% clay, 40% silt, 15% sand; medium plasticity; low estimated permeability.	6.0	
		CB-8 @7'			ML		**Gravelly SILT**; (ML); brown; dry; 10% clay, 60% silt, 10% sand, 20% gravel; no plasticity; low to moderate estimated permeability. @ 8' - as above; moist.	9.0	Portland Type I/II
				10	SP		**Gravelly SAND**; (SP); brown; wet; 5% clay, 5% silt, 60% sand, 30% gravel; high estimated permeability.	11.0	
<1.0		CB-8 @11'			GP		**Sandy GRAVEL**; (GP); brown; wet; 5% clay, 5% silt, 30% sand, 60% gravel to 1.5"; high estimated permeability.	13.0	
					SP		**Gravelly SAND**; (SP); brown; wet; 5% clay, 5% silt, 55% sand, 35% gravel; high estimated permeability.	15.5	
		CB-8 @15'		15	ML		**SILT**; (ML); light brown to tan; wet; 10% clay, 80% silt, 5% sand, 5% gravel; low to medium plasticity; low to moderate estimated permeability.	16.0	Bottom of Boring @ 16 ft

BOR LOG (TPH-G) H:\CLARK-~1\GINT\CLARK-MP.GPJ DEFAULT.GDT 5/9/00

ATTACHMENT B

Well Survey Radius Rationale

Ms. Gail Lee,
San Mateo County Environmental Health Department

Re: Proposed Well Survey Radius
1283-1291 Willow Road,
Menlo Park, California,

As required by the San Mateo County Groundwater Protection Program Corrective Action Guidelines, Policies and Procedures, Cambria is submitting the following rationale to support our proposed well survey radius for the above referenced site. The regulations require that a seepage velocity be calculated using the equation Vs = Ki/Ne.

The following resources were used to determine the values used in the Seepage Velocity (Vs) equation: 1) Since there are no wells onsite, or nearby cases with comparable data, the hydraulic gradient of 0.0028 ft/ft was determined based on information in a Phase I Environmental Site Assessment completed for the referenced site by CET of Emeryville, CA on April 28, 1995. 2) The soil types encountered near the capillary fringe during Cambria's August 23, 1999 Phase II Assessment were silty sands with a hydraulic conductivity likely ranging from .01-1 cm/sec. However the site subsurface lithology also consists of varying clays, silts, silty sands, and sandy silts layers. We used an estimated hydraulic conductivity of 0.1 cm/sec for silty sands, which is very conservative, because of likely finer grained low permeability soils existing in the saturated zone; 3) The effective porosity value of 0.28 was used for loamy sand based on numerous professional references.

Using these assumed values we calculated a seepage velocity for the site below.

Vs = seepage velocity
Vs = Ki/Ne
=(0.1)(0.0028)/(0.28)
= 0.001 cm/sec
= 1034 ft/year

However, since a regulatory accepted degradation rate for TPHd has not been promulgated, this seepage velocity is likely greatly exaggerated.

The data collected during our April 23, 1999 investigation indicates that the actual seepage velocity is much slower. Our data demonstrates that TPHg has attenuated from 910 ppb to ND in 40 feet, and that TPHd has attenuated from 3,500 ppb to 630 ppb in 40 feet. Assuming that the hydrocarbons have only traveled 40 feet in the 22 years since the tanks were removed in 1978, the actual seepage velocity is 1.8 ft/year not 1034 ft/year. In addition, the hydrocarbons detected were in grab a groundwater samples and, would likely be as much as a magnitude lower if the sample had been collected from a permanent monitoring well.

These results indicate that the gasoline-range hydrocarbons detected in the former UST area have not migrated significantly downgradient, and have naturally attenuated beneath the site since the UST removal in 1978.

In addition, based on a linear relationship using concentrations and distance, TPHd concentrations have decreased from 3,500 ppb to 630 ppb in 40 feet. This results in a change of 2470 ppb over 40 feet or a

decrease in concentration of 74 ppb/ft. Assuming this linear relationship, an additional distance of 8.5 feet should decrease the 630 ppb TPHd concentration to below detection limits.

Therefore, we recommend completing a 1,000 feet radius well survey as a conservative measure, as the actual extent of impact is likely 49 feet.

We hope our rationale meets the Groundwater Protection Program Well Survey requirements, please call me with any comments or questions at (510) 420-3340 regarding this rationale.

Sincerely,

John Riggi
Geologist

SAN MATEO COUNTY GROUNDWATER PROTECTION PROGRAM
CASE CLOSURE
M E M O R A N D U M

TO: SAN MATEO COUNTY GROUNDWATER PROTECTION PROGRAM

FROM: Gregory J. Smith

DATE: May 18, 2000

SUBJECT: **SMCO SITE NO. 440061**
CLARK PROPERTY
1283 WILLOW ROAD (aka 1224 CARLTON AVENUE)
MENLO PARK, CA 94025

BACKGROUND HISTORY

The following history is based on data contained in the Cambria October 8, 1999, *Subsurface Investigation Report*. In 1955, Tidewater Associates Oil Company of San Francisco installed three USTs for a service station at 1291 Willow Road. One 4,000-gallon and one 6,000-gallon fuel UST, and one 280-gallon waste-oil UST were installed. The service station was demolished in 1978 by Henry Rainer, a previous property owner. Mr. Rainer reported that the two fuel USTs were removed, but was unsure of waste-oil UST. No UST records for the station were found at Menlo Park Fire Department, Menlo Park Building Department, or San Mateo County Environmental Health Services. The site is currently a vacant lot with no structures.

A phase I investigation was conducted for the property in 1995 that identified the former service station at the site. A phase II subsurface investigation was conducted at the site in 1999. The workplan for the phase II investigation was review by GPP staff prior to implementation.

INVESTIGATIVE METHODS

On August 23, 1999, eight soil borings (CB-1 through CB-8) were drilled at the site, at locations shown on Figure 2, to investigate potential soil and groundwater impact due to former service station operations at the site. Prior to drilling at the site, a geophysical survey (presumably a magnetic survey) was performed at the site to determine whether the 280-gallon waste-oil tank was still in place at the site. No evidence of the UST was found at the site. It is assumed that the waste-oil UST was removed in 1978 along with the site's fuel tanks.

Borings drilled at the site in August 1999 were advanced using direct-push techniques (Geoprobe). Borings at the site were advanced to between 16 and 24 feet bgs. Soil samples were collected from each of the three borings (CB-2, CB-3, CB-5) that penetrated the former UST locations, as well as one boring (CB-8) immediately downgradient from the former fuel USTs. These locations would be expected to have the highest residual soil impact at the site. Analytical results indicated highly weathered gasoline or diesel range hydrocarbons. The maximum TPH in soil was 180 mg/kg TPH-gasoline (strongly aged/weathered) in boring CB-2. No benzene and no MTBE were detected in soil at the site. Soil analytical results are summarized in Table 3.

Groundwater grab samples were collected from all site borings. Diesel range hydrocarbons, while highly weathered, appear to be the most prominent constituent of concern (COC) at the site. No benzene and no MTBE were detected in groundwater at the site. The highest detected TPH-diesel concentration (3500 µg/L) in groundwater at the site was is from boring CB-3 (former tank pit). Analytical notes indicated that both gasoline and oil range hydrocarbons contributed to the TPH-diesel quantitation, and the sample contained a large amount of sediment. Groundwater analytical results from borings surrounding CB-3 indicate that the weathered diesel is limited in extent and is not migrating. Groundwater analytical results are summarized in Tables 1 and 2.

At the request of GPP staff, a well survey was performed using a 700-foot radius around the site. The survey radius was approved by GPP staff. The survey identified one abandoned shallow well downgradient from the site, two inactive shallow wells up/cross-gradient from the site (inactive since 1970, no longer used according to owners), and one well up-gradient from the site of unknown depth or usage (the property owner refused to return questionnaire or provide additional information. None of the wells have the potential to be affected by the subject site.

EXTENT OF CONTAMINATION

SOIL

The maximum TPH in soil was 180 mg/kg TPH-gasoline (strongly aged/weathered) in boring CB-2. No benzene and no MTBE were detected in soil at the site. Soil analytical results are summarized in Table 3.

GROUNDWATER

Diesel range hydrocarbons, while highly weathered, appear to be the most prominent constituent of concern (COC) at the site. No benzene and no MTBE were detected in groundwater at the site. The highest detected TPH-diesel concentration (3500 µg/L) in groundwater at the site was is from boring CB-3 (former tank pit). Analytical notes indicated that both gasoline and oil range hydrocarbons contributed to the TPH-diesel quantitation, and the sample contained a large amount of sediment. Groundwater analytical results from borings surrounding CB-3 indicate that the weathered diesel is limited in extent and is not migrating. Groundwater analytical results are summarized in Tables 1 and 2.

LOCAL AND REGIONAL HYDROGEOLOGY

Based on boring logs from the August 1999 investigation, the site is underlain by sandy gravelly fill to approximately 2 feet bgs. The fill is underlain by silty clays and clayey silts to approximately 10 feet bgs. Poorly-graded fine- to coarse-grained sand and poorly-graded gravel units of relatively high permeability are encountered from approximately 10 to 15 feet bgs. Discontinuous, thin clayey silt units were interbedded with the sands and gravels to the maximum depth explored.

GROUNDWATER OCCURRENCE

Depth to groundwater at the site is generally from 8 to 10 feet bgs, flowing to the north/northwest toward the Ravenswood Slough and eventually SF Bay. The Slough is more than 2600 feet north of the site.

BENEFICIAL USES

The Basin Plan for San Francisco Bay currently defines the aquifers in San Mateo County to be suitable for municipal supply, industrial supply and agricultural uses. The site lies within the Confined Aquifer Zone of the Santa Clara Valley Groundwater Basin. This aquifer has four existing beneficial uses: municipal and domestic, industrial (service & process), and agricultural (RWQCB, 1995). However, shallow groundwater (less than 50 feet bgs) in the area of the site is not known to be used currently. Based on records on file with the County, there are generally no wells using the shallow groundwater in the vicinity of the site. A well survey was performed; shallow wells were identified, but are up/cross-gradient from the site by at least 650 feet, and have not been used since approximately 1970. On well located near the site at 1304 Carlton was identified as abandoned. Due to the proximity to the site, GPP staff inspected 1304 Carlton for evidence of the abandoned well. At the location identified as the former well location, no evidence of the former well was found.

Shallow groundwater beneath the site flows toward the Ravenswood Slough and eventually SF Bay. The Slough is more than 2600 feet north of the site.

Natural biodegradation of the remaining adsorbed and dissolved-phase hydrocarbons beneath the site is most likely ongoing and is expected to reduce the remaining levels of hydrocarbons in the soil and groundwater.

REMEDIATION ACTIVITIES AND EFFECTIVENESS

The tanks were reportedly removed from the site in 1978. Based on residual soil and groundwater impact remaining at the site, no active remediation is warranted.

CLOSURE RATIONALE

This case is considered a low-risk groundwater case as defined by the California Regional Water Quality Control Board, San Francisco Bay Region's memorandum termed "Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites". Based on the Interim Guidance, the site qualifies for closure for the following reasons.

(1) **The leak has been stopped and ongoing sources, including free product, have been removed or remediated.**
The primary sources of contamination were removed in 1978 (e.g., tank and soil around the tank).

(2) **The site has been adequately characterized.**
The extent of the impact to soil and groundwater has been adequately characterized by eight site borings with soil and groundwater samples.

(3) **The dissolved hydrocarbon plume is no migrating.**
Based on length of time since tanks were removed from the site and the residual groundwater concentrations at the site currently, the dissolved hydrocarbon plume does not appear to be migrating.

(4) **No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.**
Shallow groundwater (less than 50 feet bgs) in the area of the site is not known to be used currently. Based on a door-to-door well survey in the area of the site, inactive wells were identified, but are not likely to be impacted by site. Shallow groundwater beneath the site flows toward the Ravenswood Slough and eventually SF Bay. The Slough is more than 2600 feet north of the site.

(5) **The site presents no significant risk to human health.**
Residual concentrations of COCs at the site are below Tier 0 risk concentrations. Therefore, the site presents no significant risk to human health.

(6) **The site presents no significant risk to the environment.**
Given no significant potential for impact to surface water, groundwater, or other receptors, there is no significant risk to the environment.

RECOMMENDATIONS

Based on the investigation, and other information which is currently and actually known to this agency, we have determined that all appropriate response actions have been completed, all acceptable or remedial practice were implemented, and further investigation, remedial/removal action, or monitoring is not required at the site with regard to a release of hazardous waste or substance from the underground storage tanks located at the site. We have determined that a significant release of diesel and/or gasoline fuel has not occurred and the shallow waters have not been significantly impacted. San Mateo County Groundwater Protection Program staff have determined that the water quality objectives of the San Francisco Bay Regional Water Quality Control Board have been satisfied.

Gregory J. Smith, Haz-Mat Specialist III

6/14/00
Date

CAMBRIA

Table 1. Groundwater Hydrocarbon Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Date	Oil and Grease	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Volatile Halocarbons
		<				(µg/L)				>
CB-2W	8/23/99	---	370[a,b,c]	100[c,d]	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-3W	8/23/99	---	3,500[b,c,e]	910[c,f,g]	<0.5	0.92	3.4	2.7	<5.0	---
CB-5W	8/23/99	---	220[c,e]	<50[c]	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-6W	8/23/99	---	<50	<50	<0.5	<0.5	<0.5	1.3	<5.0	---
CB-7W	8/23/99	---	630[c]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---
CB-8W	8/23/99	<0.005	62[a,b,c]	<50[c]	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5

Notes:

Oil and grease by EPA methods 5520

TPHd = Total extractible petroleum hydrocarbons as diesel by EPA method Modified 8015.

TPHg = Total extractible petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

Volatile halocarbons by EPA method 601 or 8010.

Analytical Laboratory Notes:

a = Diesel range compounds are significant; no recognizable pattern.

b = Gasoline range compounds are significant.

c = Liquid sample contains greater than ~5 vol. % sediment.

d = Strongly aged gasoline or diesel range compounds are significant.

e = Oil range compounds are significant.

f = Heavier gasoline range compounds are significant (aged gasoline?).

g = No recognizable pattern.

CAMBRIA

Table 2. Groundwater Metals Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Date	Dissolved Lead	LUFT Metals			
			Cadmium	Chromium	Nickel	Zinc
		(µg/l)				
CB-2W	8/23/99	<5.0	---	---	---	---
CB-3W	8/23/99	<5.0	---	---	---	---
CB-5W	8/23/99	<5.0	---	---	---	---
CB-8W	8/23/99	<5.0	10	18	290	90

Notes:

Dissolved Lead by EPA method 239.2.

LUFT Metals by EPA method 239.2.

CAMBRIA

Table 3. Soil Hydrocarbon Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Depth (ft bgs)	Sample Date	Oil and Grease	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Volatile Halocarbons
			<				(mg/kg)				>
CB-2 @7'	7.0	8/23/99	---	140[a]	180[b]	<0.005	0.051	<0.02	0.059	<0.10	---
CB-3 @11'	11.0	8/23/99	---	130[a,c]	96[d,e]	<0.01	<0.01	<0.01	<0.01	<0.20	---
CB-5 @7'	7.0	8/23/99	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
CB-8 @11'	11.0	8/23/99	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005

Notes:

bgs = below ground surface.

Oil and grease by EPA methods 5520

TPHd = Total purgeable petroleum hydrocarbons as diesel by EPA method Modified 8015.

TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

Volatile halocarbons by EPA method 601 or 8010.

Analytical Laboratory Notes:

a = Medium boiling point pattern that does not match diesel (stoddard solvent?).

b = Strongly aged gasoline or diesel range compounds are significant.

c = Oil range compounds are significant.

d = TPH pattern that does not appear to be derived from gasoline (stoddard solvent?).

e = No recognizable pattern.

CAMBRIA

Table 4. Soil Metals Analytic Data - Formerly 1283 and 1291 Willow Road, Menlo Park, California

Sample ID	Sample Depth (ft bgs)	Sample Date	LUFT Metals (mg/kg)				
			Lead	Cadmium	Chromium	Nickel	Zinc
CB-2 @7'	7.0	8/23/99	9.5	---	---	---	---
CB-3 @11'	11.0	8/23/99	13	---	---	---	---
CB-5 @7'	7.0	8/23/99	9.8	---	---	---	---
CB-8 @11'	11.0	8/23/99	4.2 (<3.0)	<0.5	31	33	39

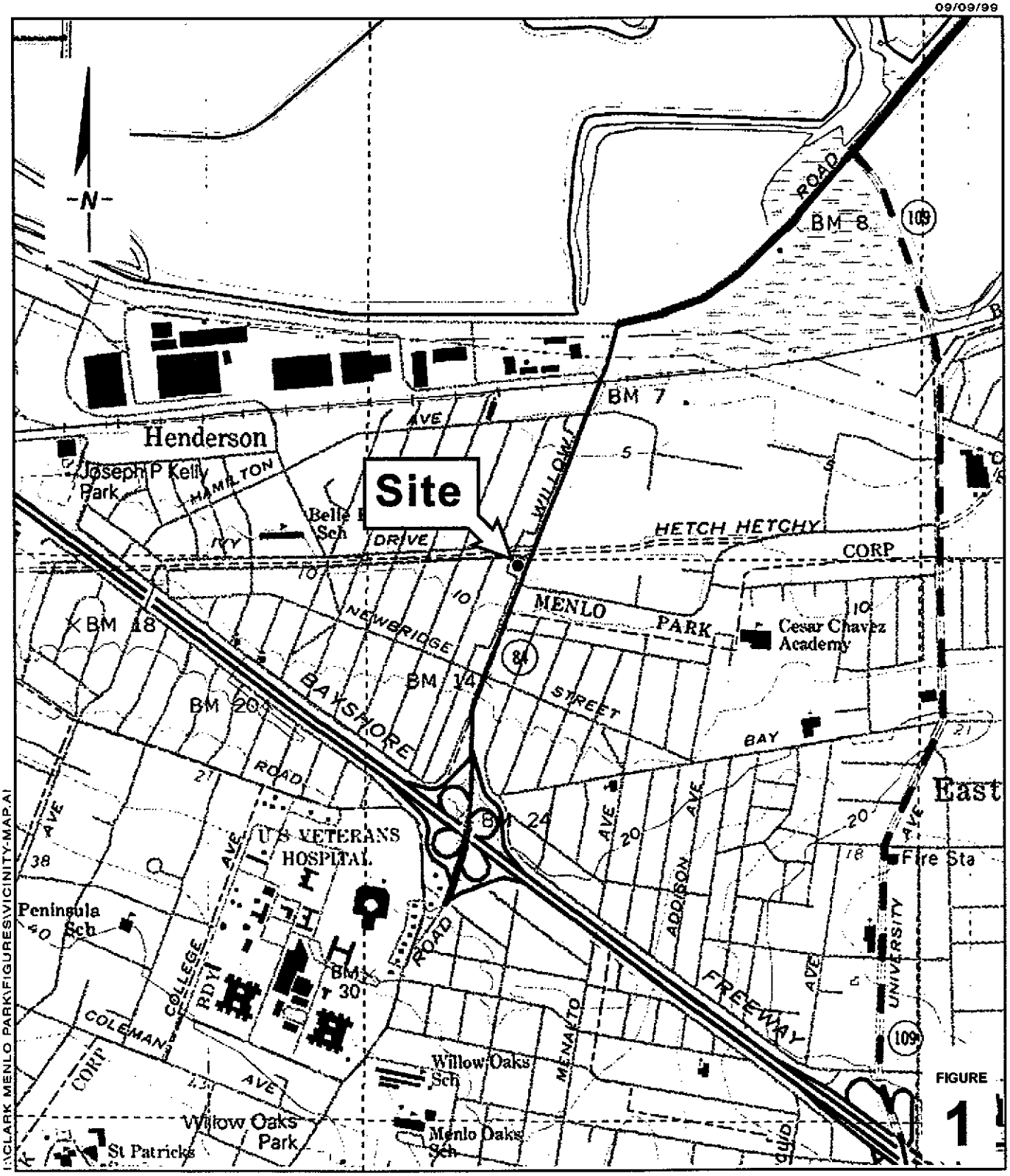
Notes:

bgs = below ground surface.

Lead by EPA method 6010.

LUFT Metals by EPA method 6010/200.7.

x(y) = Concentration in parenthesis indicates sample was analyzed for analyte more than once.



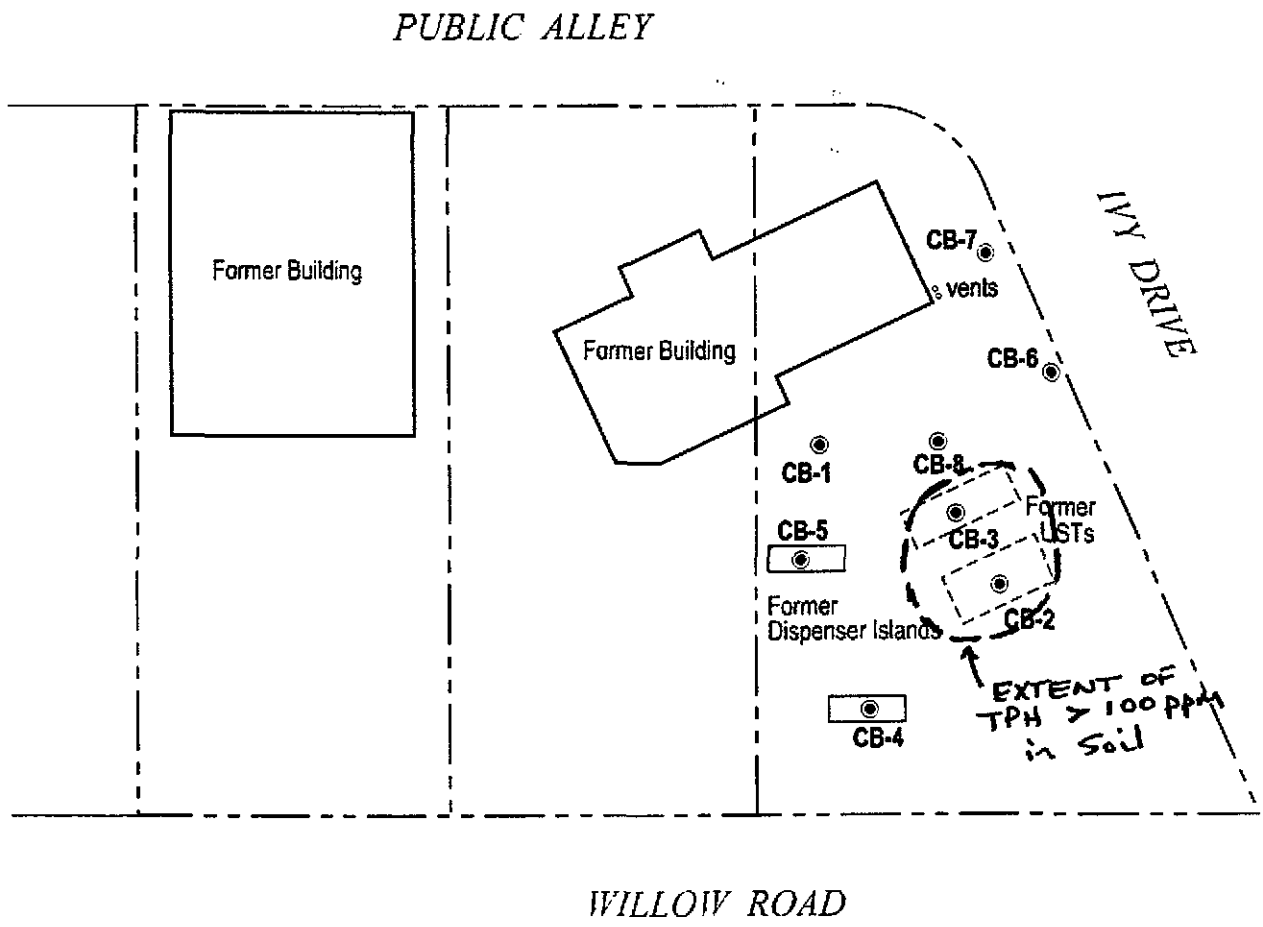
Clark Phase II

1283 and 1291 Willow Road

Menlo Park, California

CAMBRIA

Vicinity Map



EXPLANATION

CB-1 ◉ Soil boring location

0 15 30

Scale (ft)

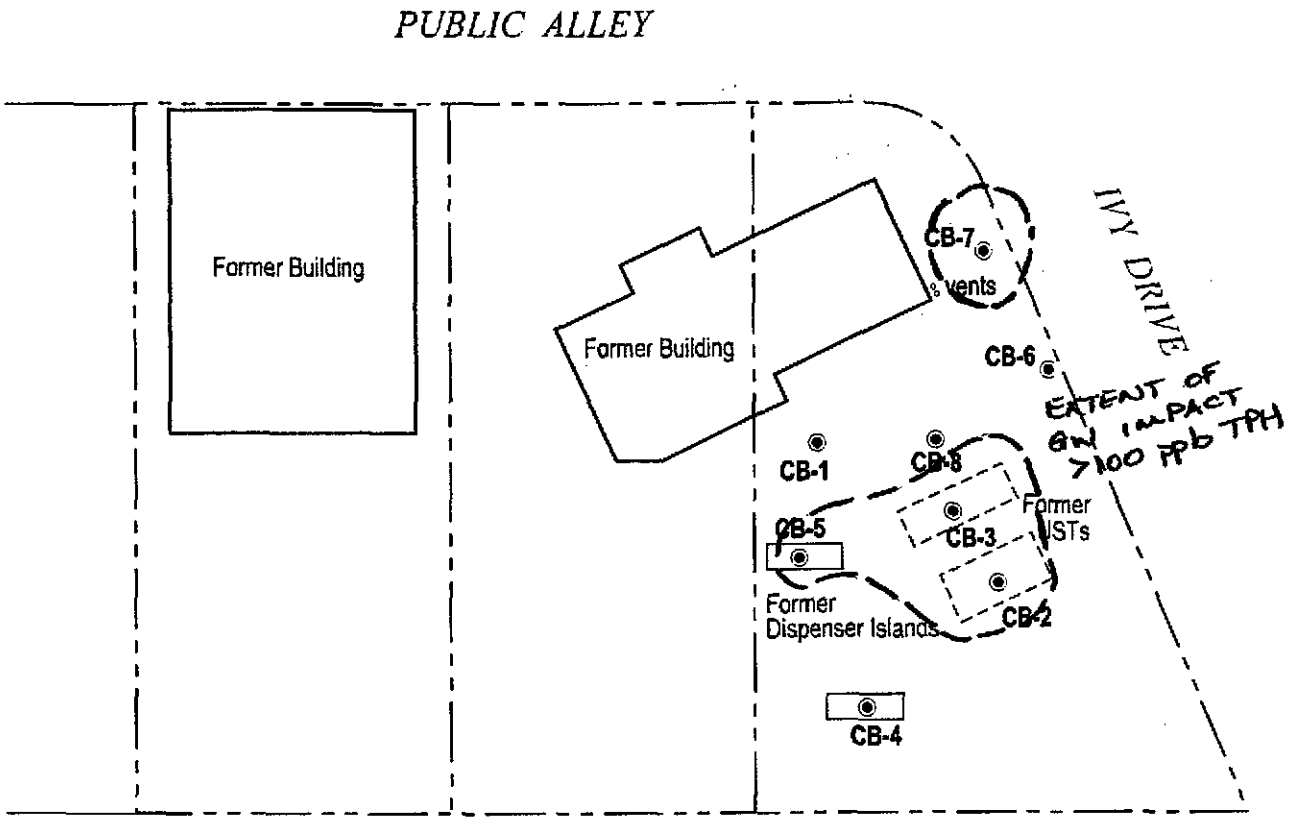
FIGURE **2**

H:\CLARK MENLO PARK\FIGURES\BOR-LOC.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map
EXTENT OF SOIL IMPACT



EXPLANATION

CB-1 ◉ Soil boring location

N

0 15 30

Scale (ft)

FIGURE 3

H:\CLARK MENLO PARK\FIGURES\BOR-LOC.DWG

Clark Phase II
Vacant Property
1283 and 1291 Willow Road
Menlo Park, California

CAMBRIA

Soil Boring Location Map

EXTENT OF GW IMPACT

ENVIRONMENTAL HEALTH

San Mateo County Environmental Health Services Division
455 County Center, 4th Floor
Redwood City, CA 94063
(650) 363-4305

Mastercard
$ PAID 2096.00
I-15925
SAN MATEO COUNTY ENVIRONMENTAL HEALTH

08-052

UNDERGROUND STORAGE TANK SYSTEM CLOSURE PERMIT APPLICATION

APR 8 2008
RECEIVED

FACILITY INFORMATION

Facility/Residence Name WILLOW CORNERS LLC Business type
Site Address 1283 WILLOW ROAD City MENLO PARK Zip
Contact Person GARY MOISEFF Title GM Phone 94025
E-Mail gary.moiseff@vancebrown.com CellPhone 415.860.6172
Owner, Agency, or Corporation Name WILLOW CORNERS LLC Phone (650) 529-1302
Mailing Address PO BOX 60819 City PALO ALTO, State CA Zip 94306
EPA ID Number TEMP CAC 000262556
Note: Include "Proof of Financial Responsibility"

CONTRACTOR REMOVING TANK(S) AND PIPING:

Contractor BALCH PETROLEUM
Contact Person JOHN A. SEXTON Phone 408 591 0170
Business Address 930 AMES AVE City MILPITAS Zip 95035
State Contractors License A B C 10 / HAZ 396575
Note: Attach a copy of Contractors License, Hazardous Materials Certification, and Workers Compensation

HAZARDOUS WASTE HAULERS:

Hazardous Waste Hauler, Tank(s) ECI EPA ID # CAD 982030173
Business address 255 PARR BLVD City RICHMOND
Contact JAMES WILCOX Phone 510.744.8851
Tank/s and piping destination AS ABOVE
Hazardous Waste Hauler (Rinsate) AS ABOVE EPA ID# CAD 009466352
Business address AS ABOVE City RICHMOND
Contact AS ABOVE Phone 510 744 8851

SAMPLE COLLECTION AND ANALYSIS:

Soil/Water Analysis Laboratory SIERRA ENVIRONMENTAL / ONTECH # 2346
State Certification Number 2346 Contact MITCH Phone 408 588 0200
Business Address 980 W TAYLOR ST. City SAN JOSE Zip 95126

TANK(S) INFORMATION

TANK SYSTEM: SIZE (GALLONS)	TANK CONSTRUCTION	SUBSTANCES(S) PREVIOUSLY CONTAINED
TANK 1 180	METAL	WASTE OIL
TANK 2		
TANK 3		
TANK 4		

CA HEALTH & SAFETY CODE: 25280-25299.8

ENVIRONMENTAL HEALTH
SAN MATEO COUNTY

Protecting Our Health and Environment

PERMIT 08- 0652

PE: 2390 UST/TANK ABANDONMENT/REMOVAL FEE

FACILITY: WILLOW CORNERS LLC-UST SITE
1283 WILLOW RD., MP

OWNER: WILLOW CORNERS LLC
PO BOX 60819
PALO ALTO

FA0037606
SR0007691
AMOUNT PAID: $ 2,096.00

CONTRACTOR:
BALCH PETROLEUM
930 AMES AVE
MILPITAS

TERMS & CONDITIONS:
TANK REMOVAL - NON REGISTERED
CC: FIRE/BLDG. - MENLO PARK

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 1

To JOHN SERTON	From PETE SMITH
Co. BALCH	Co. SMCEH
Dept.	Phone # 650/599-1600
Fax # 408/942-0131	Fax #

PETE SMITH
ENVIRONMENTAL HEALTH SPECIALIST

DATE ISSUED: 4/9/2008

EXPIRATION DATE: 10/9/2008

THIS PERMIT IS NONTRANSFERABLE AND MUST BE POSTED ON-SITE IN A CONSPICUOUS PLACE

TRANSMISSION VERIFICATION REPORT

TIME : 04/09/2008 14:52
NAME :
FAX : 3637882
TEL : 3637882
SER.# : BROL5J386992

DATE,TIME	04/09 14:51
FAX NO./NAME	914089420131
DURATION	00:00:37
PAGE(S)	01
RESULT	OK
MODE	STANDARD ECM

Date run : 4/9/2008 1:05:36PM
Run by :

San Mateo County, Environmental Health
Facility Information as of 4/9/2008

Report #: 9302
Page #: 1

Record Selection Criteria: Facility ID FA0037606

permit expiration date

Make changes/corrections in RED ink or pencil.
INFORMATION CHANGE (date) : _____
OWNERSHIP CHANGE (date) : _____

OWNER FILE INFORMATION

Owner ID: OW0034680
Permit & Owner Name: **WILLOW CORNERS LLC**
Owner DBA: WILLOW CORNERS LLC
Owner Address: 1283 WILLOW RD
MENLO PARK, CA 94025
Home Phone: 650-529-1302
Work/Business Phone: Not Specified
Mailing Address: PO BOX 60819
MENLO PARK, CA 94025
Care of: WILLOW CORNERS LLC-UST SITE

New Owner ID : _____

FACILITY FILE INFORMATION

Facility ID: FA0037606
Facility Name: WILLOW CORNERS LLC-UST SITE
Location: 1283 WILLOW RD
MENLO PARK, CA 94025
EPA ID:
Phone: 650-529-1302
Mailing Address: PO BOX 60819
MENLO PARK, CA 94025
Care of: WILLOW CORNERS LLC

Emergency Notification **GARY MOISEFF**
GM
415-860-6174

ACCOUNTS RECEIVABLE FILE INFORMATION

Account ID: AR0049382
Invoice c/o Name: WILLOW CORNERS LLC-UST SITE
Permit and Invoice Mail to: **PO BOX 60819**
MENLO PARK CA 94025
Anniversary Date: 4/9/2008 Permit Expiration: No Permit Issued

New Account ID: _____
Mail Invoices to: Owner / Facility / Account
(Circle One)

Program/Element and Description	Record ID	Employee ID and Name	Status	UST(s) Linked	Transfer to New Owner?	(Circle One) Active/Inactve	Delete
2300 - UNDERGROUND TANK - GENERAL	PR0054355	EE0003310 - PETE SMITH	Inactive	Y N		A I	D

ENVIRONMENTAL HEALTH
SAN MATEO COUNTY

Protecting Our Health and Environment

San Mateo County Environmental Health Services Division
Certified Unified Program Agency (CUPA)
455 County Center, 4th Floor (EHS126)
Redwood City, CA 94063
Phone:(650) 363-4305
e-mail: www.smhealth.org/environ

UNDERGROUND STORAGE TANK CLOSURE INSPECTION REPORT

Facility Name WILLOW CORNERS, LLC
Site Address 1283 WILLOW RD City MENLO PARK Zip 94025
Contact Person GARY MOISEFF Title GM Phone
e-mail gary.moiseff@vancebrown.com Cell Phone 415/860-6174
Responsible Party WILLOW CORNERS, LLC Phone
Mailing Address P.O. BOX 60319 City PALO ALTO State CA Zip 94306
e-mail

INSPECTION INFORMATION

1. **Removal permit issued?** ☒ Yes ☐ No Permit Number: 08-0652
   Does GPP have an open case? ☐ Yes ☒ No
   Are monitoring wells onsite? ☐ Yes ☐ No Depth to groundwater, if known: ft.
2. **Number and Size of Tank(s):**
   ~~Regular (87)~~ ~~Midgrade (89)~~ ~~Premium (91)~~ ~~Diesel~~
   1 X 180 GAL Waste Oil Hazardous Waste Other
3. **Reason for removal:** Does compliance history indicate a problem? ☐ Yes ☒ No
   If yes, explain:
4. Does the contractor have a "Site Safety Plan" onsite for review? ☒ Yes ☐ No
5. What is condition of tank(s) and/or piping? GOOD
6. Any evidence of a release? ☐ Yes ☒ No Any odor? ☐ Yes ☒ No Soil discoloration? ☐ Yes ☒ No
   Comments:
7. Was groundwater encountered in excavation? ☐ Yes ☒ No If yes, what depth? ft.
   Groundwater observations: Floating Product? ☐ Yes ☐ No Sheen? ☐ Yes ☐ No
   Was water sampled? ☐ Yes ☐ No Was water pumped? ☐ Yes ☐ No Approximate volume: gal
8. Was pit over-excavated? ☐ Yes ☒ No If yes, volume yd³
9. Were photographs taken? ☒ Yes ☐ No

SAMPLES AND SAMPLE ANALYSIS: **(Indicate on site-map where samples were collected)**

10. **Were samples collected from stockpile?** ☒ Yes ☐ No Stockpile volume: 4 yd³
    Number of samples collected?
11. **Analysis Required:** ☒ MTBE ☒ BTEX ☒ VOC ☒ TPH-G ☒ TPH-D ☒ TPH-MO ☒ Metals: Cd, Cr, Pb, Zn, Ni
    ☐ Chlorinated Hydrocarbons ☒ 8015 ☒ 8260 ☒ 8270 ☐ 6010/6020
12. Chain of Custody verified? ☒ Yes ☐ No

MANIFEST NUMBERS:

TANK 1: 003757641 JJK TANK 2: TANK 3: TANK 4:
RINSATE: PIT WATER:

Inspector Name Pete Sinton Date 4/14/08
Received by Company Sierra Environmental

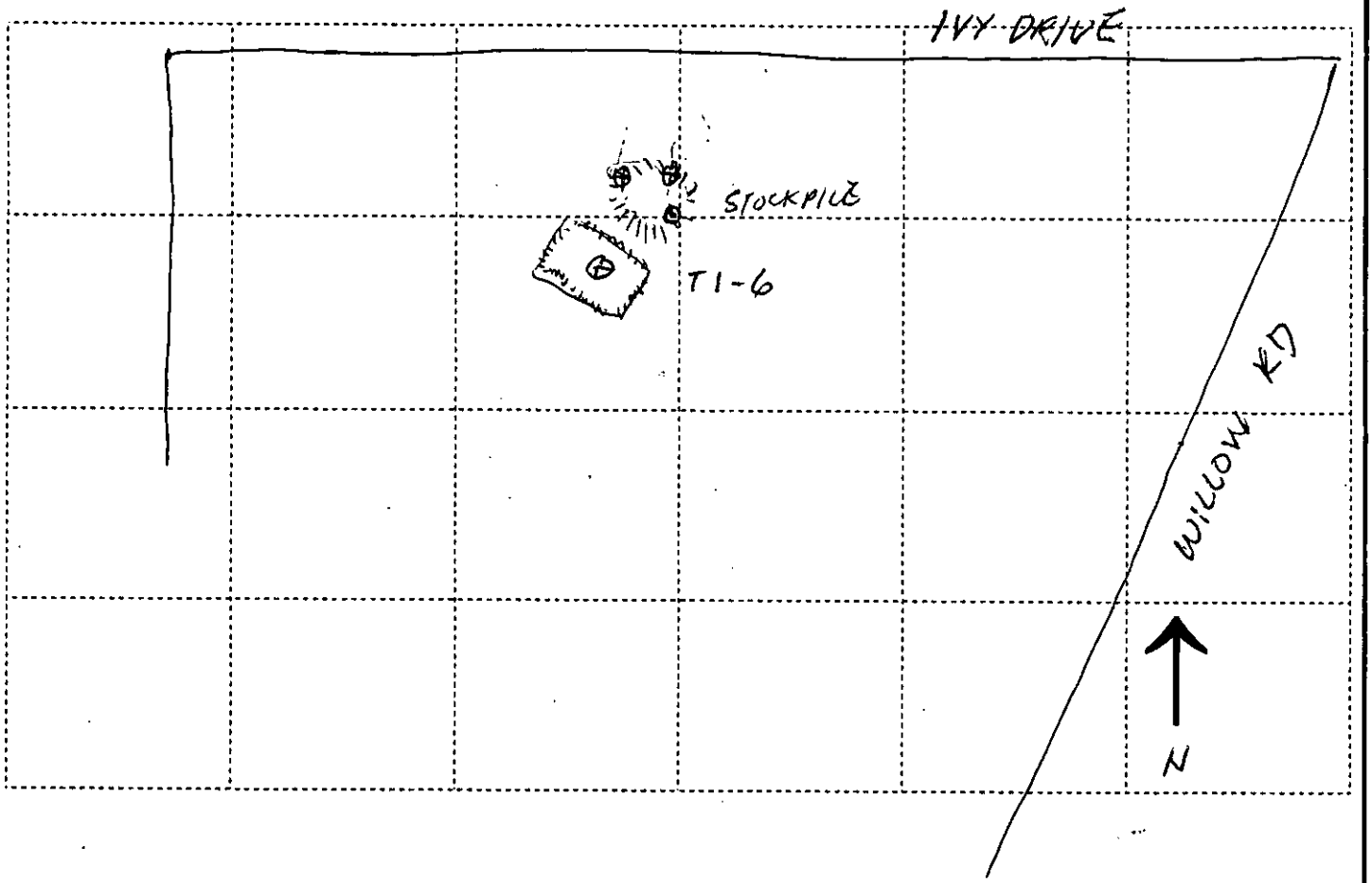
ENVIRONMENTAL HEALTH
SAN MATEO COUNTY
Protecting Our Health and Environment

San Mateo County Environmental Health Services Division
Certified Unified Program Agency (CUPA)
455 County Center, 4th Floor (EHS126)
Redwood City, CA 94063
Phone:(650) 363-4305
e-mail: www.smhealth.org/environ

SITE MAP

Facility Address: 1283 WILLOW RD CITY MENLO PARK

Illustrate: North direction, Cross Streets & Structures, Excavation, Stockpiles, and Sampling Points.



Comments: (1) STOCKPILE COMPOSITE SAMPLE FOR DISPOSAL CHARACTERIZATION ONLY.
(2) SAMPLE T1-6 TAKEN FROM BOTTOM OF EXCAVATION TO BE ANALYZED PER GPO MINIMUM VERIFICATION ANALYSIS FOR WASTE OIL.

ENVIRONMENTAL HEALTH
SAN MATEO COUNTY

San Mateo County Environmental Health Services Division
455 County Center, 4th Floor
Redwood City, CA 94063
(650) 363-4305

Mastercard
$ PAID 2096.00

SAN MATEO COUNTY
ENVIRONMENTAL HEALTH

UNDERGROUND STORAGE TANK SYSTEM CLOSURE PERMIT APPLICATION

APR 8 2008
RECEIVED

FACILITY INFORMATION

Facility/Residence Name WILLOW CORNERS LLC Business type
Site Address 1283 WILLOW ROAD City MENLO PARK Zip 94025
Contact Person GARY MOISEFF Title GM Phone
E-Mail gary.moiseff@vancebrown.com CellPhone 415.860.6172
Owner, Agency, or Corporation Name WILLOW CORNERS LLC Phone (650) 529-1302
Mailing Address PO BOX 60819 City PALO ALTO, State CA Zip 94306
EPA ID Number TEMP CAC 002628569
Note: Include "Proof of Financial Responsibility"

CONTRACTOR REMOVING TANK(S) AND PIPING:

Contractor BAKER PETROLEUM
Contact Person JOHN A. SEXTON Phone 408 591 0170
Business Address 930 AMES AVE City MILPITAS Zip 95035
State Contractors License A B C 10 / HAZ 396575
Note: Attach a copy of Contractors License, Hazardous Materials Certification, and Workers Compensation

HAZARDOUS WASTE HAULERS:

Hazardous Waste Hauler, Tank(s) ECI. EPA ID # CAD 982030173
Business address 255 PARR BLVD City RICHMOND
Contact JAMES WILCOX Phone 510.744.8851
Tank/s and piping destination AS ABOVE
Hazardous Waste Hauler (Rinsate) AS ABOVE EPA ID# CAD 009466892
Business address AS ABOVE City RICHMOND
Contact AS ABOVE Phone 510 744 8851

SAMPLE COLLECTION AND ANALYSIS:

Soil/Water Analysis Laboratory SIERRA ENVIRONMENTAL / ONTECH # 2346
State Certification Number 2346 Contact MITCH Phone 408 588 0200
Business Address 980 W. TAYLOR ST. City SAN JOSE Zip 95126

TANK(S) INFORMATION

TANK SYSTEM: SIZE (GALLONS)	TANK CONSTRUCTION	SUBSTANCES(S) PREVIOUSLY CONTAINED
TANK 1 180	METAL	WASTE OIL
TANK 2		
TANK 3		
TANK 4		

SEE BACK

State Of California
CONTRACTORS STATE LICENSE BOARD
ACTIVE LICENSE

396575 CORP

BALCH PETROLEUM CONTRACTORS AND BUILDERS INC

A B C10 HAZ

12/31/2008

CALIFORNIA CONTRACTOR

LICENSE NUMBER 396575 BOND NUMBER 6780111

BALCH PETROLEUM CONTRACTORS

BOND EXPIRATION DATE 12/31/2008

CALIFORNIA CONTRACTOR

LICENSE NUMBER 396575 BOND NUMBER 6039978

BALCH PETROLEUM CONTRACTORS

BOND EXPIRATION DATE 12/31/2008

"PROCEDURES TO CLOSE UNDERGROUND STORAGE TANK(S) SYSTEMS"

1) Submit to the San Mateo County Environmental Health Services Division (Division) a completed "Underground Storage Tank System Closure Permit Application." Prepare State Water Resources Control Board Facility and Tank Pages. These forms are available from the Division or you may download the forms by logging on to www.unidocs.org.
   - Include a complete **"Tank Page"** for each tank to be closed.
   - Include a complete **"Facility Page"** (**if**) tank to be closed is agriculture, home heating oil, or non-regulated.
   - Include "Proof of Financial Responsibility"

2) Include with the submitted application the designated fee, workmen's compensation insurance verification, and plot plan drawing. The drawing consists of an aerial view of the facility which shows the tank(s) location and the following information:
   - Scale
   - North Arrow
   - Property Line
   - Location of structures near the tank(s)
   - Location of relevant existing equipment (including the tank(s) to be removed), associated piping, and fuel dispensers
   - Area Roadways

3) The Division must be notified a minimum of three (3) days prior to commencement of work in order to schedule a removal inspection. The removal inspection appointment **must be confirmed with the district inspector**. A representative of the Division must be present at the time of removal.

4) Site safety plan must be available for review at job site. All underground utilities must be identified. Be aware, the California Government Code (CGC), Section 4216 requires contractors to contact USA North (**1-800-277-2600)** two days prior to excavation work.

5) Contact the local fire and building agency for their policy regarding closure of underground storage tanks. It is the contractor's responsibility to notify and coordinate the closure with the local fire agency.

6) It must be demonstrated to a representative of the Division that residual product and any associated waste (i.e. sludge) have been removed from the interior of the tank(s) prior to purging. Documentation of proper disposal of residual product and associated waste using a Uniform Hazardous Waste Manifest (UHWM) must be submitted to the Division within thirty (30) working days following removal of the tank(s).

7) It must be demonstrated to a representative of the Division that the tank(s) explosive atmospheres have been adequately purged and that an explosive risk does not exists at the time of removal. **10% of Lower Explosive Limit [% LEL] or 5% oxygen**.

8) Underground tank(s) and associated piping removed from excavations must be shipped under UHWM to a permitted treatment, storage and disposal (TSD) facility or Class I landfill. Underground tanks may be cleaned using a high-pressure washer to reduce the % LEL. However, the high-pressure washing process does not render the tank(s) non-hazardous; and the tank(s) must be transported off-site under a Uniform Hazardous Waste Manifest. Any piping associated with the tank(s) which are to remain underground must be flushed of all residual product and capped or sealed to the satisfaction of the Division. Copies of all UHWM must be submitted to the Division within thirty (30) working days following removal of the tank(s).

9) To determine the extent of any contamination, soil and/or water samples must be collected form the excavation pit after the tank(s) are removed. Soil samples must also be taken every twenty (20) feet along piping runs at the interface of backfill material and native soil. Soil samples must be collected from the excavation stockpile (approximately one discrete sample per twenty (20) cubic yards). The samples must be collected by a qualified, independent third party. All samples shall be protected against contamination and/or degradation during their collection, transport, and analysis. Submit to the Division, within thirty (30) days following removal of the tank(s), a written sample analysis report, which includes chain of custody documentation, sample location map, and depth to sample measurements. The reports analysis results

and conclusions are subject to critical review; and the report must be approved by the Division to be recognized as valid.

10) A groundwater investigation will be required if any of the following conditions exist or if a representative of the Division deems one necessary to assure that the public health and safety is protected:
- Soil contamination concentrations exceeding 100 PPM total petroleum hydrocarbons (TPH) or total oil and grease (TOG) within two feet of native soil beneath the tank.
- Detectable concentrations of petroleum hydrocarbon are found in soil at or below the seasonable high groundwater level.
- Detectable levels of any petroleum hydrocarbon in soil below the tank and the soil contains layers of sand, gravel and/or other high permeability material.
- Groundwater in excavation pit has detectable levels of any petroleum hydrocarbon. (pit may be pumped and allowed to recharge).
- Site has history of leaks or tanks are in poor condition upon removal.

11) Transported tanks must have all openings sealed, except for opening atop the tank fitted for ventilation with "T" or other device which will preclude rain entering a stored tank.

12) An additional hourly fee will be charged for inspection time exceeding four (4) hours.

The listed items are general closure requirements, modifications may be necessary in certain situations. A deficient application or incomplete information will only cause a delay in the permit process, if you have questions or need assistance call the Division at (650) 363- 4305. The Underground Tank Closure Permit expires 90 days from the approval date. If the tanks have not been closed within 90 days, a new closure permit application and fees are required. The closure must be scheduled 72 hours in advance.

Applicant Declaration:

I certify the application information is correct and factual. I declare that I have read and will follow the "Procedures to Close Underground Storage Tank(s) Systems." I further agree to comply with all applicable San Mateo County Ordinances; Health and Safety Code Chapter 6.7; Title 23,California Code of Regulation; and Title 22,California Code of Regulations.

Applicant JOHN A. SEXTON Applicant [signature] Date 04/08/08

Print Signature

"This box for Division use only"

Comments PLEASE ISSUE PE # AND PERMIT FOR UST CLOSURE.

Inspectors Signature [signature] Approval Date 4/8/08

Deno Milano - Re: 1283-1299 Willow Rd

From: "Gary Moiseff"
To: "Lafrance, Ron J"
Date: 3/25/2008 10:58 AM
Subject: Re: 1283-1299 Willow Rd
CC: , "McClure, William"

3/25/08
Ron-

Your statement is mis-leading. To the best of my knowledge, only one tank has been found. The tank has not been ruptured but what appear to be the fill pipe and the vent pipe have been broken off. The liquid that was in these pipes was spilled. The volume of this liquid is < 1 gallon. The liquid appears to be used motor oil. We have isolated the soil material that absorbed that liquid.

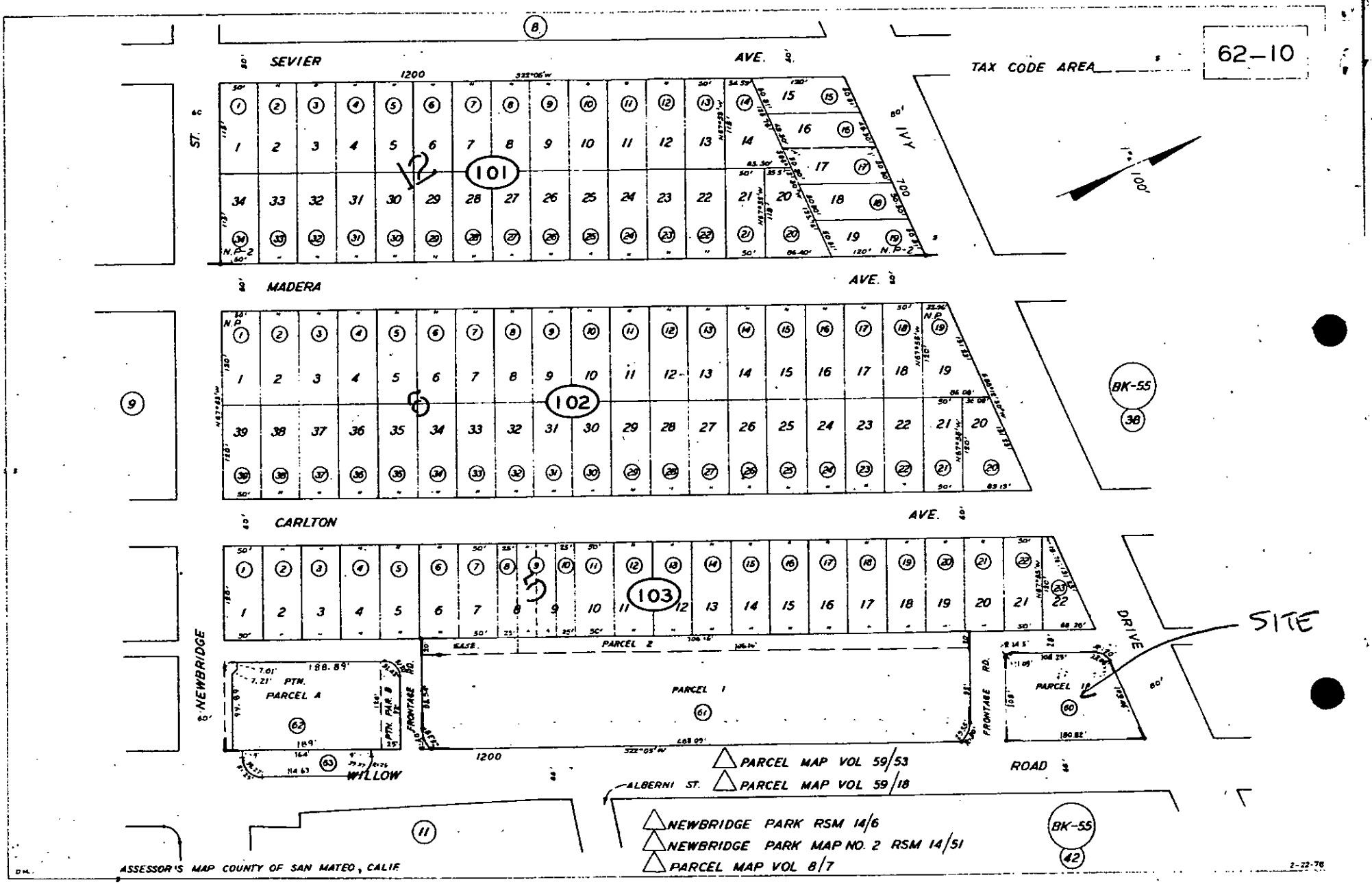
The good news is that the tank is full and apparently NOT ruptured and NOT leaking.

We are in the process of making arrangements to have the used motor oil properly removed and properly disposed of. We will also make sure that the oil-impregnated soil is properly disposed of.

Regards,
GM
Gary Moiseff
(415) 860-6174

On Mar 25, 2008, at 10:10 AM, Lafrance, Ron J wrote:

> Mr. Milano,
>
> While preparing the site for construction and excavating for new footings at 1283-1299 Willow Rd., buried underground storage tanks filled with fluid were discovered and there was some spillage when one of the tanks was ruptured. This e-mail serves as official notification of the spillage. The contractor and developer are aware of the problem and should be contacting you. If you do not receive any notification from them, the developer, Gary Moiseff, can be reached at gary.moiseff@vancebrown.com.
>
> Ron La France
> Building Official
> City of Menlo Park


62-10
TAX CODE AREA
SEVIER AVE.
MADERA AVE.
CARLTON AVE.
IVY
ST.
NEWBRIDGE
DRIVE
ROAD
WILLOW
ALBERNI ST.
FRONTAGE RD.
101
102
103
BK-55
38
42
SITE
PARCEL A
PARCEL 1
PARCEL 2
PARCEL MAP VOL 59/53
PARCEL MAP VOL 59/18
NEWBRIDGE PARK RSM 14/6
NEWBRIDGE PARK MAP NO. 2 RSM 14/51
PARCEL MAP VOL 8/7
ASSESSOR'S MAP COUNTY OF SAN MATEO, CALIF.
2-22-78

SAN MATEO COUNTY
ENVIRONMENTAL HEALTH
MAY 0 2 2008
RECEIVED

REPORT FOR ENVIRONMENTAL SOIL SAMPLING AND ANALYSIS DURING WASTE OIL UNDERGROUND STORAGE TANK REMOVAL

1283 Willow Road
Menlo Park, California

Prepared for
Mr. Tom Balch

Prepared by
Sierra Environmental, Inc.

April 28, 2008
Project 08-102.78

Sierra Environmental, Inc.
Environmental Consultants

April 28, 2007
Project 08-102.78

Mr. Tom Balch
Balch Petroleum
Contractors & Builder, Inc.
930 Ames Avenue
Milpitas, CA 95035

Subject: Report for Environmental Soil Sampling and Analysis During Underground Storage Tank Removal at 1283 Willow Road, Menlo Park, California

Dear Mr. Balch:

Sierra Environmental, Inc. (Sierra) is pleased to present this environmental sampling and analysis report for the subject property, hereafter, referred to as Site. The report documents the field observations during tank removal, and includes laboratory analytical results for soil samples collected from bottom of a waste oil underground storage tank (UST) excavation, and a soil stockpile.

Balch Petroleum Contractors and Builders, Inc. (Balch) of Milpitas, California performed the construction activities. Sierra was retained by Balch to perform the environmental soil sampling and analysis. Sierra submitted the samples to Accutest/Entech Analytical Labs, Inc. (Entech) of Santa Clara, California, for chemical analysis.

Entech is an independent State-certified analytical laboratory (# 2346).

FIELD ACTIVITIES

On April 14, 2007, Balch removed one 180-gallon waste oil single wall steel UST from the Site. After removal, Ecology Control Industry (ECI) transported the tank off-Site.

980 W. Taylor Street
San Jose, CA 95126
Phone (408) 971-6758
Fax (408) 971-6759

Mr. Pete Smith of San Mateo County Health Department (SMCHD) was present at the Site, during the tank removal activities. No hole or damage was observed in the tank. No groundwater was encountered in the tank excavation. Figure 1 shows the former UST's location. A copy of the hazardous waste manifest for the UST is presented in Appendix A.

The backfill material around the UST consisted of sand. The same day, Sierra's field personnel collected soil sample ST1,A,B,C, and D from the soil/sand stockpile. No petroleum hydrocarbon odor was detected in the samples. The samples were composited into one by Entech, before chemical analysis.

The native soil of the excavation bottom consisted of brown silty clay. After the tank removal, with the direction of Mr. Smith, Sierra's field personnel collected soil sample T1-6 from undisturbed soil at bottom of the excavation . The soil sample was collected using 6-inch long stainless steel liners from a backhoe bucket. The tank excavation was approximately 8' x 6' x 5'-deep.

No odor/stain was detected/observed in the soil sample. Analytical results for the soil samples are presented in Table I.

After collection, the liners were sealed with Teflon® tape and plastic end-caps. They were labeled, placed on ice in a cooler, and delivered to Entech with chain-of-custody documentation.

CHEMICAL ANALYSIS

At the request of Mr. Smith, the soil samples were analyzed for total extractable petroleum hydrocarbons (TEPH) using the United States Environmental Protection Agency (EPA) modified method 8015. Also, the samples were analyzed for total petroleum hydrocarbons as gasoline (TPHG) using GC/MS method, volatile organic compounds (VOCs) using EPA method 8260B, semi-volatile compounds (SVOC) using EPA method 8270C, and 5 metals using EPA method 6010B.

Certified analytical results and chain-of-custody documentation presented in Appendix B.

Please feel welcome to call me if you have questions.

Very Truly Yours,
Sierra Environmental, Inc.

Mitch Hajiaghai, REA II, CAC
Principal

Attachments:

Table 1	-	Analytical Results for the Soil Samples
Figure 1	-	Sampling Location
Appendix A	-	Hazardous Waste Manifest for the UST, and Non-Hazardous Water Transport Forms
Appendix B	-	Certified Analytical Reports and Chain-of-Custody Documentation

cc: Mr. Peter Smith, SMCHD (1 Copy)

R08-102.78\Menlo Park\MH04282008

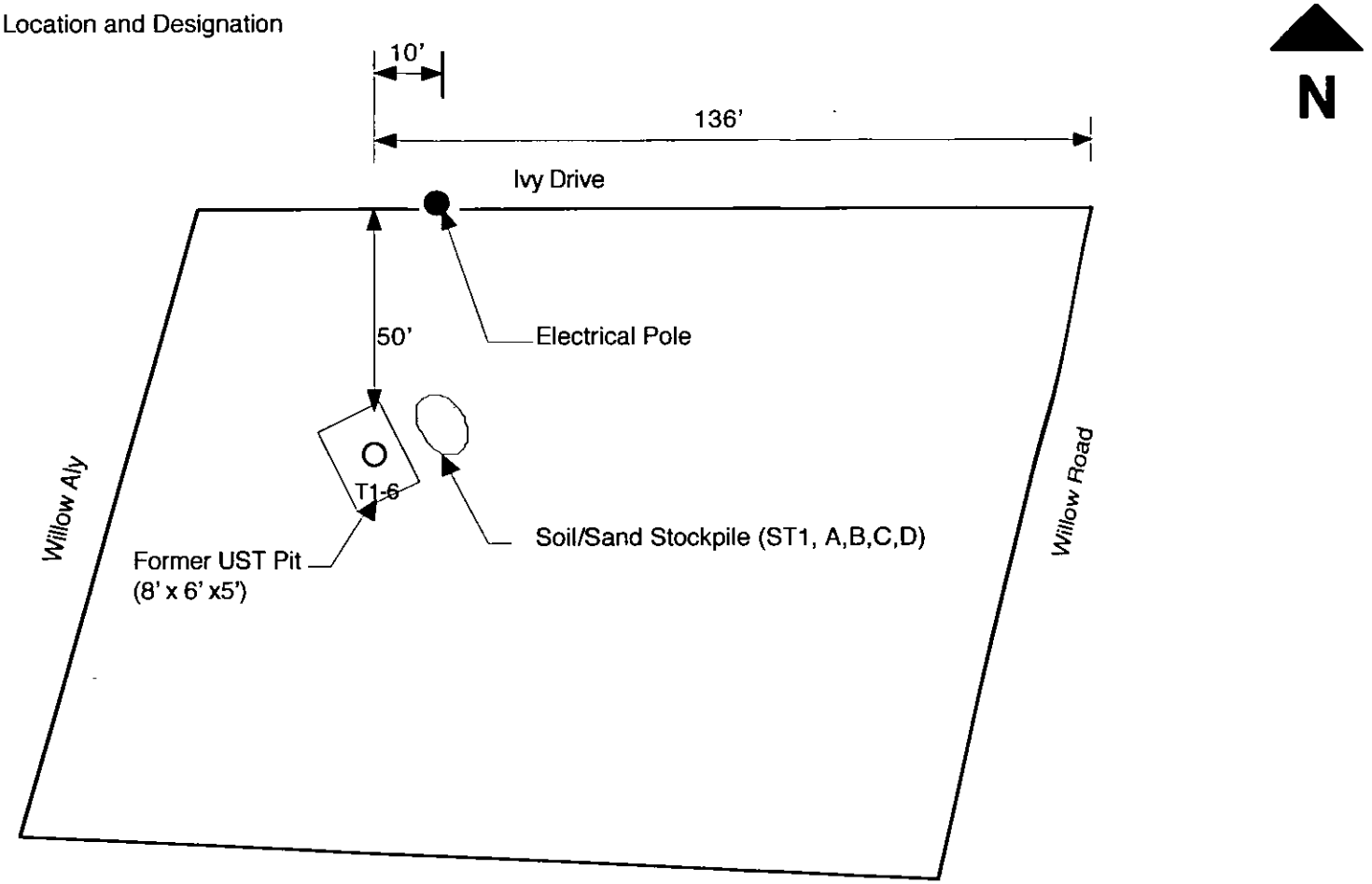
TABLE I
ANALYTICAL RESULTS FOR SOIL SAMPLES

Sample ID	Sample Depth ft	Sample Date	TPHG[1] µg/kg	TEPH[2] mg/kg	VOCs[3] µg/kg	SVOCs[4] mg/kg	5 Metals[5] mg/kg
T1-6	-6	4-14-08	ND[6]	ND.ND,ND,ND	ND	ND	ND,50,5.6,40,64
ST1, A,B,C,D	N/A[7]	4-14-08	ND[6]	ND,110,ND,ND	ND	ND	ND,72,40,59,87

1 TPHG = Total Petroleum Hydrocarbons as Gasoline
2 TEPH = Total Extractable Petroleum Hydrocarbons (Diesel, Motor Oil, Mineral Spirit, Kerosene)
3 VOCs = Volatile Organic Compounds
4 SVOCs = Semi-Volatile Organic Compounds
5 5 Metals = Cadmium, Chromium, Lead, Nickel, Zinc
6 ND = Not Detected
7 N/A = Not Applicable

LEGEND

○ T1-6 Soil Sample Location and Designation



Drawing Not to Scale

SIERRA ENVIRONMENTAL, INC.
Environmental Consultants
980 W. Taylor Street, San Jose, CA 95126
Phone [408]971-6758 · Fax [408] 971-6759

Sampling Location

Environmental Sampling and Analysis During UST Removal

1283 Willow Road · Menlo Park · California

FIGURE 1

April 28 2008
Project 08-102.78

Appendix A

HAZARDOUS WASTE MANIFEST FOR THE UST

Tank Processing JOB #: 527.363 Page 1 of 1

TANK CERTIFICATION

********** PART I – To be completed by the Customer **********

CUSTOMER: Balch Petroleum GENERATOR: Willows Corners State Waste Codes: 512

LOCATION: Menlo Park EPA I.D.#: CAC 002 628 569 EPA Waste Codes:

TRANSPORTER: ECI MANIFEST #: 003527685 JJK

	TANK 1	TANK 2	TANK 3	TANK 4	TANK 5	TANK 6
TANK #:	33709					
CAPACITY:	2000					
DIAMETER:	5' 8"					
LENGTH:	40"					
STEEL/GLASS:	STL					
LAST CONTAINED:	UO					

LG = Leaded Gas, UG = Unleaded Gas, D = Diesel, UO = Used Oil, FO = Fuel Oil
Specify the material Last Contained if other than above.

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

The waste represented on this manifest is not generated by a chemical manufacturing plant, coke-by product recovery plant of petroleum refinery. As such, it is not regulated under 40 CFR Part 61, Subpart FF (NESHAPS for Benzene Operations).

____Pursuant to 40 CFR 268.7 I am notifying Ecology Control Industries that the material described by the above manifest is a nonwastewater, Non-RCRA solid hazardous waste and not currently subject to EPA Land Disposal Restrictions.

____Pursuant to CCR 22 66268.7 I am notifying Ecology Control Industries that the material described by the manifest is a ...tal containing Non-RCRA solid hazardous waste (66268.29(g)), and an organics containing Non-RCRA solid hazardous ...ste (66268.29(k)). The treatment standards for these wastes have been repealed. This waste is no longer subject to land ...posal restrictions.

...m an authorized agent/representative of the generator. I certify that all information submitted in this and associated ...uments is complete and accurate to the best of my knowledge. The tanks on the transport equipment have been numbered to ...respond with the information provided above. In the event that the tanks do not correspond to the form, I will pay any and ...costs incurred in rectifying the discrepancies between the tank(s) and the form. In the event that the tank(s) contain excessive ...ds or liquids, I agree to pay the cost of preparation, transportation and disposal/recycling of the excess material according to ...schedule of charges in effect at the time of receipt of the tank(s). Further, I will not hold Ecology Control Industries ...onsible for any damage to tanks which occurs after the tanks are removed from the ground.

...THORIZED REPRESENTATIVE

...NATURE: _____ DATE: 4-14-08

...NAME: Chris Maggiora TITLE: Operator

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAC002 628 569
2. Page 1 of: 1
3. Emergency Response Phone: 800-321-5478
4. Manifest Tracking Number: 003757641 JJK

5. Generator's Name and Mailing Address: Willow Corners LLC, PO Box 60819, Palo Alto, Ca. 94306
Generator's Phone: 415 Phone 6114
Generator's Site Address (if different than mailing address): Willow Corners LLC, 1283 Willow Rd, Palo Alto, Ca. 94025

6. Transporter 1 Company Name: ECOLOGY CONTROL INDUSTRIES
U.S. EPA ID Number: CAD982030173

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: ECOLOGY CONTROL INDUSTRIES, 295 PARR BOULEVARD, RICHMOND CA 94801
Facility's Phone: 510 236-1393
U.S. EPA ID Number: CAD008408392

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Non-RCRA, Hazardous Waste, Solid (Empty Storage Tanks)	001	TP	200	P	312		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
QTY 1 EMPTY SOTRAGE TANK. TANK # 33709
ECI JOB# 527634
WEAR PROPER PPE WHEN HANDLING. WEIGHTS AND OR VOLUMES ARE APPROXIMATE

15. GENERATOR/SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.
Generator's/Offeror's Printed/Typed Name: Casey Maicoff
Signature: [signature]
Month 10 Day 14 Year 08

TRANSPORTER

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter Signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Vic Raymundo
Signature: [signature]
Month 10 Day 14 Year 08
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator): Manifest Reference Number:
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator):
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems):
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: James Wilcox
Signature: James Wilcox
Month 10 Day 14 Year 08

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Appendix B

CERTIFIED ANALYTICAL RESULTS
&
CHAIN-OF-CUSTODY DOCUMENTATION

Northern California
ACCUTEST.
Laboratories

3334 Victor Court
Santa Clara, CA 95054
Phone: (408) 588-0200
Fax: (408) 588-0201
www.accutest.com

Mitch Hajiaghai
Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126

Lab Order Number: C0544
Issued: 04/24/2008

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Final Report

On April 14, 2008, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test / Comments
Solid	Composite VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B SVOCs: EPA 3545A / EPA 8270C Metals by ICP: EPA 3050B / EPA 6010B TPH-Purgeable - GC/MS: EPA 5030B (or 5035A for Encore Samples only) / GC/MS TPH-Extractable: EPA 3545A / EPA 8015B(M)

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
Subcontracted work is the responsibility of the subcontract laboratory, this includes turn-around-time and data quality.
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Laurie Glantz-Murphy
Laboratory Director

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126
Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-001 **Sample ID:** TI-6 **Matrix:** Solid **Sample Date:** 4/14/2008 4:00 PM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Cadmium	ND		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Chromium	50		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Lead	5.6		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Nickel	40		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Zinc	64		1.0	2.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415

Analyzed by: CTran
Reviewed by: HDINH

TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	5.0	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417
TPH as Motor Oil	ND		1.0	20	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417
TPH as Mineral Spirits (Stoddard)	ND		1.0	5.0	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417
TPH as Kerosene	ND		1.0	5.0	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417

Surrogate	Surrogate Recovery	Control Limits (%)
n-Hexacosane	77.4	50 - 150

Analyzed by: JHsiang
Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST Laboratories

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Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126
Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-001 **Sample ID: TI-6** **Matrix:** Solid **Sample Date:** 4/14/2008 4:00 PM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	4/18/2008	SM3080418
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	4/18/2008	SM3080418
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	4/18/2008	SM3080418
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST Laboratories

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Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126
Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-001 **Sample ID:** Tl-6 **Matrix:** Solid **Sample Date:** 4/14/2008 4:00 PM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	4/18/2008	SM3080418
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	4/18/2008	SM3080418
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	4/18/2008	SM3080418

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	104	60 - 130
Dibromofluoromethane	88.8	60 - 130
Toluene-d8	97.5	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126
Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-001 **Sample ID:** TI-6 **Matrix:** Solid **Sample Date:** 4/14/2008 4:00 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Chlorophenol	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Methylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Nitroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Nitrophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
3-Nitroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Chloroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Nitroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Nitrophenol	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Acenaphthene	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Acenaphthylene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Aniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Anthracene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Azobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415

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Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126
Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-001 **Sample ID:** TI-6 **Matrix:** Solid **Sample Date:** 4/14/2008 4:00 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzoic Acid	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Carbazole	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Chrysene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Dibenzofuran	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Diethylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Dimethylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Diphenylamine	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Fluoranthene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Fluorene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachloroethane	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Isophorone	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Naphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Nitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Pentachlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Phenanthrene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Phenol	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Pyrene	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Pyridine	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzidine	ND		1.0	2.5	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
n-Nitrosodiphenylamine (See Diphen	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415

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Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-001 **Sample ID:** TI-6 **Matrix:** Solid **Sample Date:** 4/14/2008 4:00 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Surrogate	**Surrogate Recovery**		**Control Limits (%)**					Analyzed by: LYu	
2,4,6-Tribromophenol	45.4		30 - 100					Reviewed by: mtran	
2-Fluorobiphenyl	33.1		20 - 106						
2-Fluorophenol	34.9		20 - 100						
Nitrobenzene-d5	36.3		20 - 100						
Phenol-d6	37.1		20 - 100						
p-Terphenyl-d14	87.7		55 - 130						

TPH-Purgeable - GC/MS: EPA 5030B (or 5035A for Encore Samples only) / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	100	µg/Kg	N/A	N/A	4/18/2008	SM3080418
Surrogate	**Surrogate Recovery**		**Control Limits (%)**					Analyzed by: EricKum	
4-Bromofluorobenzene	92.3		60 - 130					Reviewed by: MaiChiTu	
Dibromofluoromethane	98.6		60 - 130						
Toluene-d8	100		60 - 130						

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Project Number: 08-102.78
Project Name: Vacant Land
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Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-006 **Sample ID: STI-(A-D)Composite** **Matrix:** Solid **Sample Date:** 4/14/2008 3:35 PM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Cadmium	ND		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Chromium	72		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Lead	40		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Nickel	59		1.0	1.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415
Zinc	87		1.0	2.0	mg/Kg	4/15/2008	SM080415	4/16/2008	SM080415

Analyzed by: CTran
Reviewed by: HDINH

TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		2.0	10	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417
TPH as Motor Oil	110		2.0	40	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417
TPH as Mineral Spirits (Stoddard)	ND		2.0	10	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417
TPH as Kerosene	ND		2.0	10	mg/Kg	4/17/2008	SDA080417	4/18/2008	SDA080417

Surrogate	Surrogate Recovery	Control Limits (%)
n-Hexacosane	77.6	50 - 150

Analyzed by: JHsiang
Reviewed by: mtran

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Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-006 **Sample ID:** STI-(A-D)Composite **Matrix:** Solid **Sample Date:** 4/14/2008 3:35 PM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,1,1-Trichloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,1,2,2-Tetrachloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,1,2-Trichloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,1-Dichloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,1-Dichloroethene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,1-Dichloropropene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2,3-Trichlorobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2,3-Trichloropropane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2,4-Trichlorobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2,4-Trimethylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2-Dibromo-3-Chloropropane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2-Dibromoethane (EDB)	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2-Dichlorobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2-Dichloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,2-Dichloropropane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,3,5-Trimethylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,3-Dichlorobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,3-Dichloropropane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,4-Dichlorobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
1,4-Dioxane	ND		50	10000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
2,2-Dichloropropane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
2-Butanone (MEK)	ND		50	2000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
2-Chlorotoluene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
2-Hexanone	ND		50	2000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
4-Chlorotoluene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
4-Methyl-2-Pentanone(MIBK)	ND		50	2000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Acetone	ND		50	5000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Acetonitrile	ND		50	2000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Benzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Bromobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Bromochloromethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Bromodichloromethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Bromoform	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Bromomethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Carbon Disulfide	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Carbon Tetrachloride	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Chlorobenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Chloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Chloroform	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Chloromethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
cis-1,2-Dichloroethene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414

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Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab #: C0544-006 **Sample ID:** STI-(A-D)Composite **Matrix:** Solid **Sample Date:** 4/14/2008 3:35 PM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Dibromochloromethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Dibromomethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Dichlorodifluoromethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Diisopropyl Ether	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Ethyl Benzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Freon 113	ND		50	500	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Hexachlorobutadiene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Iodomethane	ND		50	500	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Isopropanol	ND		50	5000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Isopropylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Methyl-t-butyl Ether	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Methylene Chloride	ND		50	2500	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
n-Butylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
n-Propylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Naphthalene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
p-Isopropyltoluene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Pentachloroethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
sec-Butylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Styrene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
tert-Amyl Methyl Ether	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
tert-Butanol (TBA)	ND		50	2000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
tert-Butyl Ethyl Ether	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
tert-Butylbenzene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Tetrachloroethene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Tetrahydrofuran	ND		50	2000	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Toluene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
trans-1,2-Dichloroethene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
trans-1,3-Dichloropropene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
trans-1,4-Dichloro-2-butene	ND		50	500	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Trichloroethene	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Trichlorofluoromethane	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Vinyl Chloride	ND		50	250	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414
Xylenes, Total	ND		50	500	µg/kg	4/14/2008	PM080414	4/22/2008	PM080414

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.4	60 - 130
Dibromofluoromethane	89.4	60 - 130
Toluene-d8	101	60 - 130

Analyzed by: Bela
Reviewed by: MaiChiTu

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Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-006 **Sample ID:** STI-(A-D)Composite **Matrix:** Solid **Sample Date:** 4/14/2008 3:35 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Chlorophenol	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Methylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Nitroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
2-Nitrophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
3-Nitroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Chloroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Nitroaniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
4-Nitrophenol	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Acenaphthene	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Acenaphthylene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Aniline	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Anthracene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Azobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126
Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab #: C0544-006 **Sample ID:** STI-(A-D)Composite **Matrix:** Solid **Sample Date:** 4/14/2008 3:35 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzoic Acid	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Carbazole	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Chrysene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Dibenzofuran	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Diethylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Dimethylphthalate	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Diphenylamine	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Fluoranthene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Fluorene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Hexachloroethane	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Isophorone	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Naphthalene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Nitrobenzene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Pentachlorophenol	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Phenanthrene	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Phenol	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Pyrene	ND		1.0	1.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Pyridine	ND		1.0	2.0	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
Benzidine	ND		1.0	2.5	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415
n-Nitrosodiphenylamine (See Diphen	ND		1.0	0.50	mg/Kg	4/15/2008	SVS080415	4/16/2008	SVS080415

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Attn: Mitch Hajiaghai

Project Number: 08-102.78
Project Name: Vacant Land
Project Location: 1283 Willow Rd.

Certificate of Analysis - Data Report

Samples Received: 04/14/2008
Sample Collected by: Client

Lab # : C0544-006 **Sample ID: STI-(A-D)Composite** **Matrix:** Solid **Sample Date:** 4/14/2008 3:35 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Surrogate	**Surrogate Recovery**		**Control Limits (%)**					Analyzed by: LYu	
2,4,6-Tribromophenol	80.6		30 - 100					Reviewed by: mtran	
2-Fluorobiphenyl	55.8		20 - 106						
2-Fluorophenol	50.9		20 - 100						
Nitrobenzene-d5	55.3		20 - 100						
Phenol-d6	56.1		20 - 100						
p-Terphenyl-d14	90.7		55 - 130						

TPH-Purgeable - GC/MS: EPA 5030B (or 5035A for Encore Samples only) / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		50	5000	µg/Kg	4/14/2008	PM080414	4/22/2008	PM080414
Surrogate	**Surrogate Recovery**		**Control Limits (%)**					Analyzed by: Bela	
4-Bromofluorobenzene	94.2		60 - 130					Reviewed by: MaiChiTu	
Dibromofluoromethane	93.1		60 - 130						
Toluene-d8	97.7		60 - 130						

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC/Prep Batch ID: PM080414

Validated by: MaiChiTu - 04/17/08

QC/Prep Date: 4/14/2008

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	50	250	µg/kg
1,1,1-Trichloroethane	ND	50	250	µg/kg
1,1,2,2-Tetrachloroethane	ND	50	250	µg/kg
1,1,2-Trichloroethane	ND	50	250	µg/kg
1,1-Dichloroethane	ND	50	250	µg/kg
1,1-Dichloroethene	ND	50	250	µg/kg
1,1-Dichloropropene	ND	50	250	µg/kg
1,2,3-Trichlorobenzene	ND	50	250	µg/kg
1,2,3-Trichloropropane	ND	50	250	µg/kg
1,2,4-Trichlorobenzene	ND	50	250	µg/kg
1,2,4-Trimethylbenzene	ND	50	250	µg/kg
1,2-Dibromo-3-Chloropropane	ND	50	250	µg/kg
1,2-Dibromoethane (EDB)	ND	50	250	µg/kg
1,2-Dichlorobenzene	ND	50	250	µg/kg
1,2-Dichloroethane	ND	50	250	µg/kg
1,2-Dichloropropane	ND	50	250	µg/kg
1,3,5-Trimethylbenzene	ND	50	250	µg/kg
1,3-Dichlorobenzene	ND	50	250	µg/kg
1,3-Dichloropropane	ND	50	250	µg/kg
1,4-Dichlorobenzene	ND	50	250	µg/kg
1,4-Dioxane	ND	50	10000	µg/kg
2,2-Dichloropropane	ND	50	250	µg/kg
2-Butanone (MEK)	ND	50	2000	µg/kg
2-Chlorotoluene	ND	50	250	µg/kg
2-Hexanone	ND	50	2000	µg/kg
4-Chlorotoluene	ND	50	250	µg/kg
4-Methyl-2-Pentanone(MIBK)	ND	50	2000	µg/kg
Acetone	ND	50	5000	µg/kg
Acetonitrile	ND	50	2000	µg/kg
Benzene	ND	50	250	µg/kg
Bromobenzene	ND	50	250	µg/kg
Bromochloromethane	ND	50	250	µg/kg
Bromodichloromethane	ND	50	250	µg/kg
Bromoform	ND	50	250	µg/kg
Bromomethane	ND	50	250	µg/kg
Carbon Disulfide	ND	50	250	µg/kg
Carbon Tetrachloride	ND	50	250	µg/kg
Chlorobenzene	ND	50	250	µg/kg
Chloroethane	ND	50	250	µg/kg
Chloroform	ND	50	250	µg/kg
Chloromethane	ND	50	250	µg/kg
cis-1,2-Dichloroethene	ND	50	250	µg/kg
cis-1,3-Dichloropropene	ND	50	250	µg/kg
Dibromochloromethane	ND	50	250	µg/kg
Dibromomethane	ND	50	250	µg/kg
Dichlorodifluoromethane	ND	50	250	µg/kg
Diisopropyl Ether	ND	50	250	µg/kg
Ethyl Benzene	ND	50	250	µg/kg
Freon 113	ND	50	500	µg/kg

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC/Prep Batch ID: PM080414 Validated by: MaiChiTu - 04/17/08

QC/Prep Date: 4/14/2008

Parameter	Result	DF	PQLR	Units
Hexachlorobutadiene	ND	50	250	µg/kg
Iodomethane	ND	50	500	µg/kg
Isopropanol	ND	50	5000	µg/kg
Isopropylbenzene	ND	50	250	µg/kg
Methylene Chloride	ND	50	2500	µg/kg
Methyl-t-butyl Ether	ND	50	250	µg/kg
Naphthalene	ND	50	250	µg/kg
n-Butylbenzene	ND	50	250	µg/kg
n-Propylbenzene	ND	50	250	µg/kg
Pentachloroethane	ND	50	250	µg/kg
p-Isopropyltoluene	ND	50	250	µg/kg
sec-Butylbenzene	ND	50	250	µg/kg
Styrene	ND	50	250	µg/kg
tert-Amyl Methyl Ether	ND	50	250	µg/kg
tert-Butanol (TBA)	ND	50	2000	µg/kg
tert-Butyl Ethyl Ether	ND	50	250	µg/kg
tert-Butylbenzene	ND	50	250	µg/kg
Tetrachloroethene	ND	50	250	µg/kg
Tetrahydrofuran	ND	50	2000	µg/kg
Toluene	ND	50	250	µg/kg
trans-1,2-Dichloroethene	ND	50	250	µg/kg
trans-1,3-Dichloropropene	ND	50	250	µg/kg
trans-1,4-Dichloro-2-butene	ND	50	500	µg/kg
Trichloroethene	ND	50	250	µg/kg
Trichlorofluoromethane	ND	50	250	µg/kg
Vinyl Chloride	ND	50	250	µg/kg
Xylenes, Total	ND	50	500	µg/kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	98.9	60 - 130
Dibromofluoromethane	88.1	60 - 130
Toluene-d8	94.4	60 - 130

Method Blank - Solid - TPH-Purgeable - GC/MS: EPA 5030B (or 5035A for Encore Samples only) / GC/MS

QC/Prep Batch ID: PM080414 Validated by: MaiChiTu - 04/17/08

QC/Prep Date: 4/14/2008

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	50	5000	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	92.9	60 - 130
Dibromofluoromethane	99.1	60 - 130
Toluene-d8	99.6	60 - 130

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Method Blank - Solid - TPH-Extractable: EPA 3545A / EPA 8015B(M)

QC/Prep Batch ID: SDA080417

Validated by: mtran - 04/21/08

QC/Prep Date: 4/17/2008

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	5.0	mg/Kg
TPH as Kerosene	ND	1	5.0	mg/Kg
TPH as Mineral Spirits (Stoddard)	ND	1	5.0	mg/Kg
TPH as Motor Oil	ND	1	20	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
n-Hexacosane	83.2	50 - 150

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3080418

Validated by: MaiChiTu - 04/21/08

QC Batch Analysis Date: 4/18/2008

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,1-Trichloroethane	ND	1	5.0	µg/Kg
1,1,2,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,2-Trichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethene	ND	1	5.0	µg/Kg
1,1-Dichloropropene	ND	1	5.0	µg/Kg
1,2,3-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,3-Trichloropropane	ND	1	5.0	µg/Kg
1,2,4-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,4-Trimethylbenzene	ND	1	5.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/Kg
1,2-Dibromoethane (EDB)	ND	1	5.0	µg/Kg
1,2-Dichlorobenzene	ND	1	5.0	µg/Kg
1,2-Dichloroethane	ND	1	5.0	µg/Kg
1,2-Dichloropropane	ND	1	5.0	µg/Kg
1,3,5-Trimethylbenzene	ND	1	5.0	µg/Kg
1,3-Dichlorobenzene	ND	1	5.0	µg/Kg
1,3-Dichloropropane	ND	1	5.0	µg/Kg
1,4-Dichlorobenzene	ND	1	5.0	µg/Kg
1,4-Dioxane	ND	1	200	µg/Kg
2,2-Dichloropropane	ND	1	5.0	µg/Kg
2-Butanone (MEK)	ND	1	40	µg/Kg
2-Chlorotoluene	ND	1	5.0	µg/Kg
2-Hexanone	ND	1	40	µg/Kg
4-Chlorotoluene	ND	1	5.0	µg/Kg
4-Methyl-2-Pentanone(MIBK)	ND	1	40	µg/Kg
Acetone	ND	1	100	µg/Kg
Acetonitrile	ND	1	40	µg/Kg
Benzene	ND	1	5.0	µg/Kg
Bromobenzene	ND	1	5.0	µg/Kg
Bromochloromethane	ND	1	5.0	µg/Kg
Bromodichloromethane	ND	1	5.0	µg/Kg
Bromoform	ND	1	5.0	µg/Kg
Bromomethane	ND	1	5.0	µg/Kg
Carbon Disulfide	ND	1	5.0	µg/Kg
Carbon Tetrachloride	ND	1	5.0	µg/Kg
Chlorobenzene	ND	1	5.0	µg/Kg
Chloroethane	ND	1	5.0	µg/Kg
Chloroform	ND	1	5.0	µg/Kg
Chloromethane	ND	1	5.0	µg/Kg
cis-1,2-Dichloroethene	ND	1	5.0	µg/Kg
cis-1,3-Dichloropropene	ND	1	5.0	µg/Kg
Dibromochloromethane	ND	1	5.0	µg/Kg
Dibromomethane	ND	1	5.0	µg/Kg
Dichlorodifluoromethane	ND	1	5.0	µg/Kg
Diisopropyl Ether	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Freon 113	ND	1	10	µg/Kg

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3080418 Validated by: MaiChiTu - 04/21/08

QC Batch Analysis Date: 4/18/2008

Parameter	Result	DF	PQLR	Units
Hexachlorobutadiene	ND	1	5.0	µg/Kg
Iodomethane	ND	1	10	µg/Kg
Isopropanol	ND	1	100	µg/Kg
Isopropylbenzene	ND	1	5.0	µg/Kg
Methylene Chloride	ND	1	50	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Naphthalene	ND	1	5.0	µg/Kg
n-Butylbenzene	ND	1	5.0	µg/Kg
n-Propylbenzene	ND	1	5.0	µg/Kg
Pentachloroethane	ND	1	5.0	µg/Kg
p-Isopropyltoluene	ND	1	5.0	µg/Kg
sec-Butylbenzene	ND	1	5.0	µg/Kg
Styrene	ND	1	5.0	µg/Kg
tert-Amyl Methyl Ether	ND	1	5.0	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
tert-Butyl Ethyl Ether	ND	1	5.0	µg/Kg
tert-Butylbenzene	ND	1	5.0	µg/Kg
Tetrachloroethene	ND	1	5.0	µg/Kg
Tetrahydrofuran	ND	1	40	µg/Kg
Toluene	ND	1	5.0	µg/Kg
trans-1,2-Dichloroethene	ND	1	5.0	µg/Kg
trans-1,3-Dichloropropene	ND	1	5.0	µg/Kg
trans-1,4-Dichloro-2-butene	ND	1	10	µg/Kg
Trichloroethene	ND	1	5.0	µg/Kg
Trichlorofluoromethane	ND	1	5.0	µg/Kg
Vinyl Chloride	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	103	60 - 130
Dibromofluoromethane	90.6	60 - 130
Toluene-d8	96.4	60 - 130

Method Blank - Solid - TPH-Purgeable - GC/MS: EPA 5030B (or 5035A for Encore Samples only) / GC/MS

QC Batch ID: SM3080418 Validated by: mfelix - 04/18/08

QC Batch Analysis Date: 4/18/2008

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	100	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	92.3	60 - 130
Dibromofluoromethane	101	60 - 130
Toluene-d8	99.8	60 - 130

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS080415

Validated by: mtran - 04/15/08

QC/Prep Date: 4/15/2008

Parameter	Result	DF	PQLR	Units
1,2,4-Trichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dinitrobenzene	ND	1	0.50	mg/Kg
1,3-Dichlorobenzene	ND	1	0.50	mg/Kg
1,3-Dinitrobenzene	ND	1	0.50	mg/Kg
1,4-Dichlorobenzene	ND	1	0.50	mg/Kg
1,4-Dinitrobenzene	ND	1	0.50	mg/Kg
1-Methyl-2-pyrrolidinone (NMP)	ND	1	0.50	mg/Kg
1-Methylnaphthalene	ND	1	0.50	mg/Kg
2,3,4,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,3,5,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,4,5-Trichlorophenol	ND	1	0.50	mg/Kg
2,4,6-Trichlorophenol	ND	1	0.50	mg/Kg
2,4-Dichlorophenol	ND	1	0.50	mg/Kg
2,4-Dimethylphenol	ND	1	0.50	mg/Kg
2,4-Dinitrophenol	ND	1	2.5	mg/Kg
2,4-Dinitrotoluene	ND	1	0.50	mg/Kg
2,6-Dinitrotoluene	ND	1	1.0	mg/Kg
2-Chloronaphthalene	ND	1	0.50	mg/Kg
2-Chlorophenol	ND	1	1.0	mg/Kg
2-Methylnaphthalene	ND	1	0.50	mg/Kg
2-Methylphenol	ND	1	0.50	mg/Kg
2-Nitroaniline	ND	1	0.50	mg/Kg
2-Nitrophenol	ND	1	0.50	mg/Kg
3&4-Methylphenol	ND	1	0.50	mg/Kg
3,3'-Dichlorobenzidine	ND	1	2.5	mg/Kg
3-Nitroaniline	ND	1	0.50	mg/Kg
4,6-Dinitro-2-methylphenol	ND	1	2.0	mg/Kg
4-Bromophenyl Phenyl Ether	ND	1	0.50	mg/Kg
4-Chloro-3-methylphenol	ND	1	0.50	mg/Kg
4-Chloroaniline	ND	1	0.50	mg/Kg
4-Chlorophenyl-phenylether	ND	1	0.50	mg/Kg
4-Nitroaniline	ND	1	0.50	mg/Kg
4-Nitrophenol	ND	1	2.0	mg/Kg
Acenaphthene	ND	1	1.0	mg/Kg
Acenaphthylene	ND	1	0.50	mg/Kg
Aniline	ND	1	0.50	mg/Kg
Anthracene	ND	1	0.50	mg/Kg
Azobenzene	ND	1	0.50	mg/Kg
Benzidine	ND	1	2.5	mg/Kg
Benzo(a)anthracene	ND	1	0.50	mg/Kg
Benzo(a)pyrene	ND	1	0.50	mg/Kg
Benzo(b)fluoranthene	ND	1	0.50	mg/Kg
Benzo(g,h,i)perylene	ND	1	0.50	mg/Kg
Benzo(k)fluoranthene	ND	1	0.50	mg/Kg
Benzoic Acid	ND	1	1.0	mg/Kg
Benzyl Alcohol	ND	1	1.0	mg/Kg
bis-(2-Chloroethoxy)methane	ND	1	0.50	mg/Kg
bis-(2-Chloroethyl)ether	ND	1	0.50	mg/Kg

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS080415

Validated by: mtran - 04/15/08

QC/Prep Date: 4/15/2008

Parameter	Result	DF	PQLR	Units
bis(2-Chloroisopropyl)ether	ND	1	0.50	mg/Kg
bis(2-Ethylhexyl)adipate	ND	1	0.50	mg/Kg
bis(2-Ethylhexyl)phthalate	ND	1	0.50	mg/Kg
Butylbenzylphthalate	ND	1	0.50	mg/Kg
Carbazole	ND	1	0.50	mg/Kg
Chrysene	ND	1	0.50	mg/Kg
Dibenzo(a,h)anthracene	ND	1	0.50	mg/Kg
Dibenzofuran	ND	1	0.50	mg/Kg
Diethylphthalate	ND	1	0.50	mg/Kg
Dimethylphthalate	ND	1	0.50	mg/Kg
Di-n-butylphthalate	ND	1	0.50	mg/Kg
Di-n-octylphthalate	ND	1	0.50	mg/Kg
Diphenylamine	ND	1	0.50	mg/Kg
Fluoranthene	ND	1	0.50	mg/Kg
Fluorene	ND	1	0.50	mg/Kg
Hexachlorobenzene	ND	1	0.50	mg/Kg
Hexachlorobutadiene	ND	1	0.50	mg/Kg
Hexachlorocyclopentadiene	ND	1	0.50	mg/Kg
Hexachloroethane	ND	1	0.50	mg/Kg
Indeno(1,2,3-cd)pyrene	ND	1	0.50	mg/Kg
Isophorone	ND	1	0.50	mg/Kg
Naphthalene	ND	1	0.50	mg/Kg
Nitrobenzene	ND	1	0.50	mg/Kg
N-Nitrosodimethylamine	ND	1	5.0	mg/Kg
N-Nitroso-di-n-propylamine	ND	1	1.0	mg/Kg
n-Nitrosodiphenylamine (See Diphenylami	ND	1	0.50	mg/Kg
Pentachlorophenol	ND	1	0.50	mg/Kg
Phenanthrene	ND	1	0.50	mg/Kg
Phenol	ND	1	2.0	mg/Kg
Pyrene	ND	1	1.0	mg/Kg
Pyridine	ND	1	2.0	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
2,4,6-Tribromophenol	56.9	30 - 100
2-Fluorobiphenyl	48.9	20 - 106
2-Fluorophenol	52.1	20 - 100
Nitrobenzene-d5	53.1	20 - 100
Phenol-d6	52.6	20 - 100
p-Terphenyl-d14	66.0	55 - 130

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

LCS / LCSD - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: PM080414 Reviewed by: MaiChiTu - 04/17/08

QC/Prep Date: 4/14/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	2000	1780	µg/Kg	89.0	65 - 135
Benzene	<5.0	2000	2320	µg/Kg	116	65 - 135
Chlorobenzene	<5.0	2000	2350	µg/Kg	118	65 - 135
Methyl-t-butyl Ether	<5.0	2000	1460	µg/Kg	73.0	65 - 135
Toluene	<5.0	2000	2220	µg/Kg	111	65 - 135
Trichloroethene	<5.0	2000	2310	µg/Kg	116	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	102.0	60 - 130
Dibromofluoromethane	86.1	60 - 130
Toluene-d8	98.4	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	2000	1720	µg/Kg	86.0	3.4	30.0	65 - 135
Benzene	<5.0	2000	2260	µg/Kg	113	2.6	30.0	65 - 135
Chlorobenzene	<5.0	2000	2340	µg/Kg	117	0.43	30.0	65 - 135
Methyl-t-butyl Ether	<5.0	2000	1660	µg/Kg	83.0	13	30.0	65 - 135
Toluene	<5.0	2000	2220	µg/Kg	111	0.0	30.0	65 - 135
Trichloroethene	<5.0	2000	2470	µg/Kg	124	6.7	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	102.0	60 - 130
Dibromofluoromethane	85.3	60 - 130
Toluene-d8	97.9	60 - 130

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

LCS / LCSD - Solid - TPH-Extractable: EPA 3545A / EPA 8015B(M)

QC Batch ID: SDA080417

Reviewed by: mtran - 04/21/08

QC/Prep Date: 4/17/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<5.0	100	83.8	mg/Kg	83.8	45 - 140
TPH as Motor Oil	<20	100	73.4	mg/Kg	73.4	45 - 140

Surrogate	% Recovery	Control Limits
n-Hexacosane	89.2	50 - 150

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<5.0	100	80.7	mg/Kg	80.7	3.9	30.0	45 - 140
TPH as Motor Oil	<20	100	70.8	mg/Kg	70.8	3.7	30.0	45 - 140

Surrogate	% Recovery	Control Limits
n-Hexacosane	89.1	50 - 150

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

LCS / LCSD - Solid - Metals by ICP: EPA 3050B / EPA 6010B

QC Batch ID: SM080415

Reviewed by: HDINH - 04/17/08

QC/Prep Date: 4/15/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Antimony	<2.0	50	48.9	mg/Kg	97.8	70 - 130
Arsenic	<2.0	50	47.0	mg/Kg	93.9	70 - 130
Barium	<1.0	50	48.9	mg/Kg	97.8	70 - 130
Beryllium	<1.0	50	47.5	mg/Kg	94.9	70 - 130
Cadmium	<1.0	50	47.2	mg/Kg	94.3	70 - 130
Chromium	<1.0	50	50.4	mg/Kg	101	70 - 130
Cobalt	<1.0	50	49.5	mg/Kg	98.9	70 - 130
Copper	<1.0	50	49.4	mg/Kg	98.7	70 - 130
Lead	<1.0	50	47.8	mg/Kg	95.6	70 - 130
Molybdenum	<1.0	50	49.2	mg/Kg	98.3	70 - 130
Nickel	<1.0	50	49.0	mg/Kg	98.1	70 - 130
Selenium	<2.0	50	43.8	mg/Kg	87.7	70 - 130
Silver	<1.0	50	48.8	mg/Kg	97.6	70 - 130
Thallium	<2.0	50	45.4	mg/Kg	90.8	70 - 130
Vanadium	<1.0	50	50.0	mg/Kg	99.9	70 - 130
Zinc	<2.0	50	47.9	mg/Kg	95.7	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Antimony	<2.0	50	49.1	mg/Kg	98.3	0.52	30.0	70 - 130
Arsenic	<2.0	50	47.7	mg/Kg	95.4	1.5	30.0	70 - 130
Barium	<1.0	50	48.6	mg/Kg	97.1	0.64	30.0	70 - 130
Beryllium	<1.0	50	47.8	mg/Kg	95.5	0.65	30.0	70 - 130
Cadmium	<1.0	50	46.9	mg/Kg	93.9	0.48	30.0	70 - 130
Chromium	<1.0	50	50.1	mg/Kg	100	0.57	30.0	70 - 130
Cobalt	<1.0	50	49.2	mg/Kg	98.4	0.56	30.0	70 - 130
Copper	<1.0	50	48.9	mg/Kg	97.8	0.91	30.0	70 - 130
Lead	<1.0	50	48.1	mg/Kg	96.2	0.59	30.0	70 - 130
Molybdenum	<1.0	50	49.6	mg/Kg	99.2	0.91	30.0	70 - 130
Nickel	<1.0	50	48.8	mg/Kg	97.6	0.43	30.0	70 - 130
Selenium	<2.0	50	42.6	mg/Kg	85.2	2.8	30.0	70 - 130
Silver	<1.0	50	48.8	mg/Kg	97.6	0.047	30.0	70 - 130
Thallium	<2.0	50	45.4	mg/Kg	90.8	0.031	30.0	70 - 130
Vanadium	<1.0	50	49.6	mg/Kg	99.2	0.69	30.0	70 - 130
Zinc	<2.0	50	47.0	mg/Kg	94.0	1.8	30.0	70 - 130

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

LCS / LCSD - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3080418 Reviewed by: MaiChiTu - 04/21/08

QC Batch ID Analysis Date: 4/18/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	42.5	µg/Kg	106	65 - 135
Benzene	<5.0	40	41.6	µg/Kg	104	65 - 135
Chlorobenzene	<5.0	40	40.7	µg/Kg	102	65 - 135
Methyl-t-butyl Ether	<5.0	40	37.8	µg/Kg	94.5	65 - 135
Toluene	<5.0	40	40.6	µg/Kg	102	65 - 135
Trichloroethene	<5.0	40	40.9	µg/Kg	102	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	103.0	60 - 130
Dibromofluoromethane	90.4	60 - 130
Toluene-d8	97.4	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	47.6	µg/Kg	119	11	30.0	65 - 135
Benzene	<5.0	40	47.4	µg/Kg	118	13	30.0	65 - 135
Chlorobenzene	<5.0	40	45.7	µg/Kg	114	12	30.0	65 - 135
Methyl-t-butyl Ether	<5.0	40	37.7	µg/Kg	94.2	0.26	30.0	65 - 135
Toluene	<5.0	40	45.7	µg/Kg	114	12	30.0	65 - 135
Trichloroethene	<5.0	40	47.7	µg/Kg	119	15	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	104.0	60 - 130
Dibromofluoromethane	88.4	60 - 130
Toluene-d8	99.3	60 - 130

LCS / LCSD - Solid - TPH-Purgeable - GC/MS: EPA 5030B (or 5035A for Encore Samples only) / GC/MS

QC Batch ID: SM3080418 Reviewed by: mfelix - 04/18/08

QC Batch ID Analysis Date: 4/18/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<100	250	237	µg/kg	94.8	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	92.7	60 - 130
Dibromofluoromethane	97.2	60 - 130
Toluene-d8	102.0	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<100	250	234	µg/kg	93.6	1.3	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	91.4	60 - 130
Dibromofluoromethane	96.7	60 - 130
Toluene-d8	100.0	60 - 130

ACCUTEST Laboratories

Northern California *3334 Victor Court, Santa Clara, CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

LCS / LCSD - Solid - SVOCs: EPA 3545A / EPA 8270C

QC Batch ID: SVS080415

Reviewed by: mtran - 04/15/08

QC/Prep Date: 4/15/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.2	0.780	mg/Kg	62.4	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.2	0.760	mg/Kg	60.8	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.2	0.760	mg/Kg	60.8	8.0 - 86.0
2-Chlorophenol	<1.0	1.9	1.23	mg/Kg	65.4	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.9	1.12	mg/Kg	59.6	7.0 - 94.0
4-Nitrophenol	<2.0	1.9	1.12	mg/Kg	59.6	9.0 - 80.0
Acenaphthene	<1.0	1.2	0.780	mg/Kg	62.4	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.2	0.910	mg/Kg	72.8	4.0 - 107
Pentachlorophenol	<0.50	1.9	1.27	mg/Kg	67.6	13 - 122
Phenol	<2.0	1.9	1.13	mg/Kg	60.1	15 - 87.0
Pyrene	<1.0	1.2	0.770	mg/Kg	61.6	38 - 122

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	64.9	30 - 100
2-Fluorobiphenyl	63.6	20 - 106
2-Fluorophenol	66.5	20 - 100
Nitrobenzene-d5	68.8	20 - 100
Phenol-d6	67.8	20 - 100
p-Terphenyl-d14	65.7	55 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.2	0.790	mg/Kg	63.2	1.3	44.0	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.2	0.750	mg/Kg	60.0	1.3	30.0	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.2	0.750	mg/Kg	60.0	1.3	38.0	8.0 - 86.0
2-Chlorophenol	<1.0	1.9	1.21	mg/Kg	64.4	1.6	31.0	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.9	1.13	mg/Kg	60.1	0.89	38.0	7.0 - 94.0
4-Nitrophenol	<2.0	1.9	1.29	mg/Kg	68.6	14	56.0	9.0 - 80.0
Acenaphthene	<1.0	1.2	0.770	mg/Kg	61.6	1.3	31.0	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.2	0.890	mg/Kg	71.2	2.2	43.0	4.0 - 107
Pentachlorophenol	<0.50	1.9	1.38	mg/Kg	73.4	8.3	39.0	13 - 122
Phenol	<2.0	1.9	1.12	mg/Kg	59.6	0.89	38.0	15 - 87.0
Pyrene	<1.0	1.2	0.900	mg/Kg	72.0	16	32.0	38 - 122

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	64.7	30 - 100
2-Fluorobiphenyl	61.2	20 - 106
2-Fluorophenol	64.7	20 - 100
Nitrobenzene-d5	67.1	20 - 100
Phenol-d6	66.4	20 - 100
p-Terphenyl-d14	83.1	55 - 130

CA HEALTH & SAFETY CODE: 25280-25299.8

ENVIRONMENTAL HEALTH
SAN MATEO COUNTY

Protecting Our Health and Environment

PERMIT 08- 0652

PE: 2390 UST/TANK ABANDONMENT/REMOVAL FEE

FACILITY: WILLOW CORNERS LLC-UST SITE
1283 WILLOW RD., MP

OWNER: WILLOW CORNERS LLC

PO BOX 60819
PALO ALTO

FA0037606
SR0007691
AMOUNT PAID: $ 2,096.00

CONTRACTOR:
BALCH PETROLEUM
930 AMES AVE
MILPITAS

TERMS & CONDITIONS:
TANK REMOVAL - NON REGISTERED
CC: FIRE/BLDG. - MENLO PARK

PETE SMITH
ENVIRONMENTAL HEALTH SPECIALIST

DATE ISSUED: 4/9/2008

EXPIRATION DATE: 10/9/2008

THIS PERMIT IS NONTRANSFERABLE AND MUST BE POSTED ON-SITE IN A CONSPICUOUS PLACE

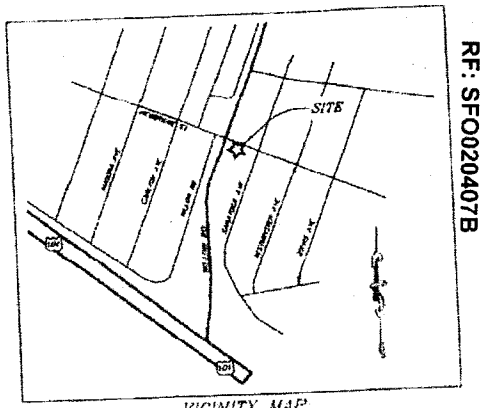
APPENDIX B: Regulatory Agency Files - Kitty Cleaners, 910 Newbridge, East Palo Alto, CA 94303

PARTIAL TOPOGRAPHIC SURVEY

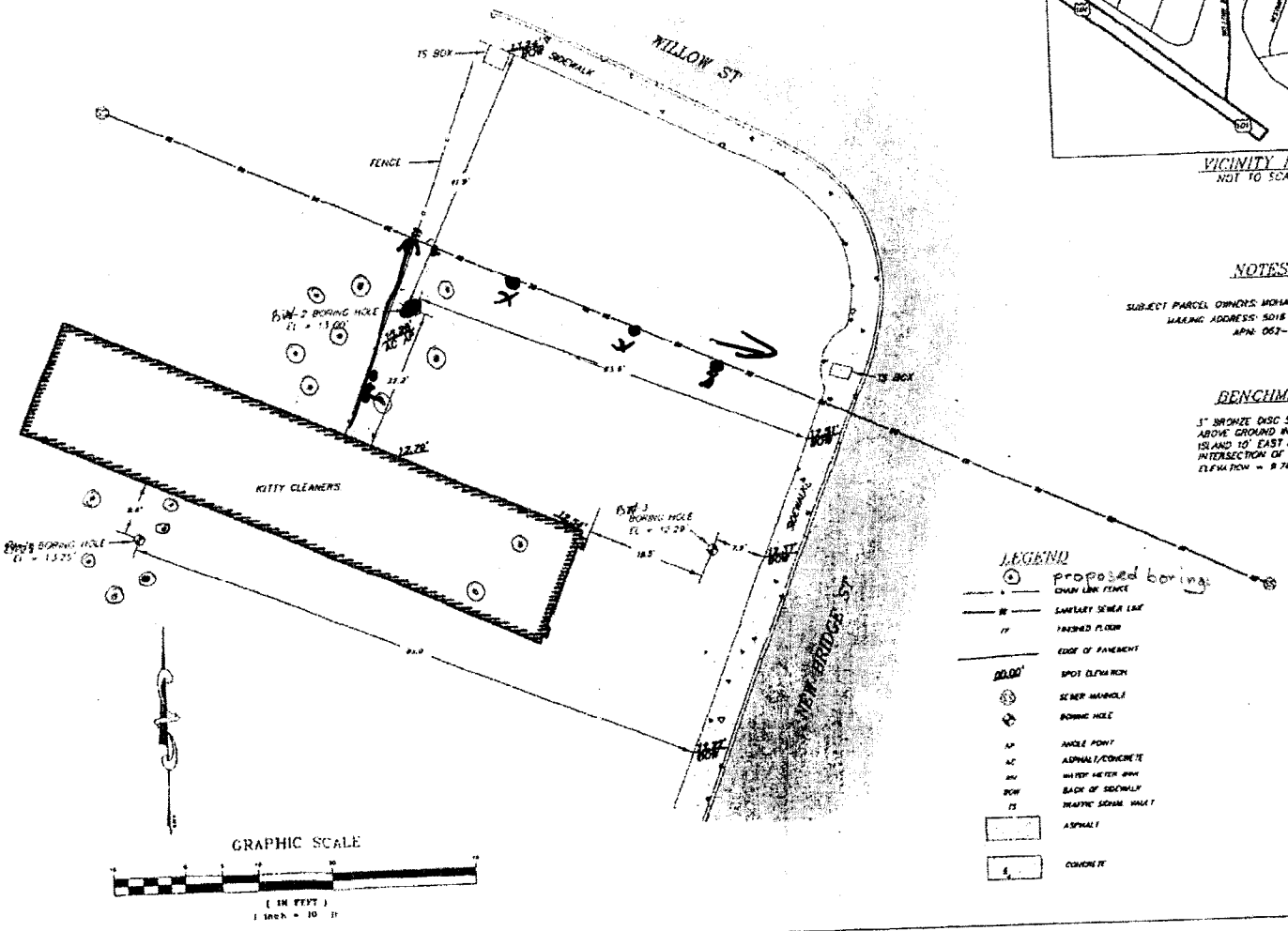
910 NEWBRIDGE ST, EAST PALO ALTO, CA
SAN MATEO COUNTY

TERRA ENGINEERING CONSTRUCTION

RF: SFO0204078



VICINITY MAP
NOT TO SCALE



NOTES

SUBJECT PARCEL OWNERS: MOHAMMUD H KARMASH
MAILING ADDRESS: 5016 NEWBERRY COURT, NEWARK, CA
APN: 062-121-020

BENCHMARK

3" BRONZE DISC SET IN CONCRETE POST 8" ABOVE GROUND IN THE EASTERN CENTERLINE ISLAND 10' EAST OF THE CURB IN THE INTERSECTION OF IVY DR AND CHILCO ST.
ELEVATION = 9.764' "BM: CITY 1"

LEGEND

- proposed boring
- CHAIN LINK FENCE
- SANITARY SEWER LINE
- FINISHED FLOOR
- EDGE OF PAVEMENT
- 20.00' SPOT ELEVATION
- SEWER MANHOLE
- BORING HOLE
- ANGLE POINT
- AC ASPHALT/CONCRETE
- WM WATER METER BOX
- BOW BACK OF SIDEWALK
- TS TRAFFIC SIGNAL VAULT
- ASPHALT
- CONCRETE

PREPARED AND SUBMITTED BY:

HASSAN IBRAHIM R.C.E. 58914 Exp. DATE

DYLKPHICS

07\051.PRO
1"=10'
RAM
NEWBRIDGE
NEWBRIDGE

1

Remedial Investigation Report of Contaminated Soil

at

Kitty's Cleaners
910 Newbridge Street
East Palo Alto, California

Prepared for

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EXECUTIVE SUMMARY EX-1

This report documents collection and laboratory analysis of soil samples for remedial investigation (RI), from exploratory borings at the Kitty's Cleaner located at 910 Newbridge Street, East Palo Alto, California (Site). This sampling was conducted by DDEE on behalf of Mr. and Mrs Karwash.

This Soil RI involved 3 major tasks in order to accomplish the project objective. The objective of the project is to determine any presence of residual chemicals, specifically PCE and its degraded products in shallow soil approximately 5 feet below ground surface (bgs). These chemicals are products of drycleaning reagents used at the site and were detected in shallow depth during previous site investigation at the waste chemical storage area and the presumed direction of lateral sewer line.

The tasks are as follow:

- **Drilling 14 soil borings** at the site, S13, S14, S15 & S16 borings were drilled to 5 feet below ground surface (bgs) at the location of the former gas station along a presumed direction of a lateral sewer line, and S11, S12 and S17 soil borings were drilled close to the City's Sanitary Sewer Line, and soil samples were collected and analyzed up to 5.0 feet bgs. Soil borings S4, S5, S6, S7, S8, S9 & S10 were drilled to 2.5 feet bgs at the location of the former drycleaner's chemical waste storage area and soil samples were collected and analyzed up to 3.0 feet bgs. 3 and 5 feet shallow depths were targeted for sampling because PCE were detected in shallow soil up to 5 feet bgs, above its Environmental Screening Levels during the previous investigation at the site.

  Drycleaner's chemical waste fluid was collected in cylindrical metal containers and stored in 55-gallons drums for collection and off-site disposal by Safety Clean, Inc., during the period that the site was operated by the current drycleaning operator (see photograph of cylindrical metal containers in Appendix D). The former operator at the site is suspected to have used a lateral sewer line in the north direction of the site, toward the location of the former gas station. The former gas station (now Exxon Mobil gas) also operated an auto repair/oil change workshop at the site. The direction of the City's Sanitary Sewer Line is toward the north area of the site (see figure 2).

- **Collecting 14 soil samples** and **submitting samples for laboratory analysis.** 14 soil samples were analyzed.

- **Submitting report** of sampling and findings of the RI, containing laboratory analysis results and recommendations.

The laboratory analytical results obtained from testing soil indicate that PCE is present at many locations at shallow depths up to 5 feet at the site (see Table 1 & Figure 2).

INTRODUCTION

DDEE was retained by Mr. and Mrs. Karwash to implement remedial investigation (RI) for the contaminated soil at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The RI is the next stage to the site investigation, where PCE was detected above its environmental screening levels (ESLs) in soils at shallow depths. The site investigation was requested by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

The lead agency caseworker on this RI project is Mr. Mark Johnson, an Engineering Geologist of the SF Bay Regional Water Quality Control Board. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), San Mateo County Health Department, Department of Toxic Substances Control (DTSC), and the City of East Palo Alto.

This is the history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the list of owners of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Mobile Gas Service Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road, was sold back to Mr. Conley. In 1986, Mr. Conley sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. Before 1980, the dry cleaning facility was owned and operated by Richard Shandy. According to the Gamblins, the Kitty's Cleaners facility was only used for collection of materials for dry cleaning since 1990. Mr. M. Karwash believes that, Caltrans, Mr. Conley, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations have contaminated the soil at the subject properties.

There are no records indicating releases at the Kitty's Cleaners facility. However the revised report of soil and groundwater sampling prepared by DDEE/WIT Inc. (December 2007), for the property located at 910 Newbridge Street, the Kitty's Cleaners and the former Colnley's Mobile Gas Station properties, indicated that TPH as diesel was not detected at the site, TPH as motor oil was detected in shallow and deep soils below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and dry cleaning fluid PCE were detected in shallow soils above the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and the highest concentration levels of PCE (6.4 ug/L) detected in groundwater was above its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United

Soil Engineering (USE, 1994) indicated that, the former Conley's Mobile Service gas station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

PROJECT OBJECTIVE

The objective of this project is to **collect** soil samples from 14 subsurface borings, at the Kitty's Cleaners located at 910 Newbridge Street, and the former Conley's gas station located at 904 Newbridge Street, and **analyze** the samples for PCE.

GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 13 feet MSL. as measured during a recent survey at the site. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006).

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area as shown from previous site investigation is relatively uniform as indicated from the subsurface drilling. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

DRILLING

The auger drill method was utilized to drill subsurface borings and a slide hammer attached to a split soil core sampler with steel liner was used at the site for collection of soil samples. A C57, State of California licensed driller was not subcontracted to perform the drilling work because the subsurface drilling did not extend to groundwater level. The soil samples were collected using 2-inch diameter steel split spoon.

SECTION-ONE

1.0 INTRODUCTION

DDEE was retained by Mr. and Mrs. Karwash to implement remedial investigation (RI) for the contaminated soil at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The RI is the next stage to the site investigation, where PCE was detected above its environmental screening levels (ESLs) in soils at shallow depths. The site investigation was requested by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

The lead agency caseworker on this RI project is Mr. Mark Johnson, an Engineering Geologist of the SF Bay Regional Water Quality Control Board. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), San Mateo County Health Department, Department of Toxic Substances Control (DTSC), and the City of East Palo Alto.

A Workplan that describes the scope of work for soil RI, work schedule, sampling procedure, laboratory analysis program, and the field procedures for this project was submitted for approval prior to conducting field work.

1.1 BACKGROUND

The history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the current owner of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Mobile Gas Service Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road, was sold back to Mr. Conley. In 1986, Mr. Conley sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. Before 1980, the dry cleaning facility was owned and operated by Richard Shandy. According to the Gamblins, the Kitty's Cleaners facility was only used for collections of materials for dry cleaning since 1990. Mr. M. Karwash believes that, Caltrans, Mr. Conley, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations have contaminated the soil the subject site.

There are no records indicating releases at the Kitty's Cleaners facility. However the revised report of soil and groundwater sampling prepared by DDEE/WIT Inc. (December 2007), for the property located at 910

Newbridge Street, the Kitty's Cleaners and the former Colnley's Mobile Gas Station properties, indicated that TPH as diesel was not detected at the site, TPH as motor oil was detected in shallow and deep soils below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and dry cleaning fluid PCE were detected in shallow soils above the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and the highest concentration levels of PCE (6.4 ug/L) detected in groundwater was above its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United Soil Engineering (USE, 1994) indicated that, the former Conley's Mobile Service Gas Station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

SECTION-TWO

2.0 PROJECT OBJECTIVE

The objective of this project is to **collect** soil samples from 14 subsurface borings, at the Kitty's Cleaners located at 910 Newbridge Street, and the former Conley's Mobile gas service station located at 904 Newbridge Street, and **analyze** the **soil samples for PCE,** and use the results **to separate zones in shallow depths with PCE chemical levels higher than SF Bay ESLs** for residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

2.1 SITE LOCATION

The subject site is located at 910 Newbridge Street, and 904 Newbridge Street, East Palo Alto, California in the industrial, partly residential and commercial area of the city of East Palo Alto, California. The subject site is the Kitty's Cleaners and the former Conely's Mobile Gas Service Station facility. The site is on the northwest side of Newbridge Street between Saratoga Avenue and Willow Road. The site has been used for drycleaning and gas station facilities for many years.

2.2 LOCAL GEOLOGY

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling during a previous site investigation. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

SECTION-THREE

3.0 GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 16 feet MSL. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006). .

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling during a previous site investigation. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and clay with medium plasticity from 20 to 24 feet.

The subsurface investigation for this RI project was limited to the shallow soil up to five feet since PCE was the chemical of concern detected above the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow and deep soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

SECTION-FOUR

4.0 SCOPE OF WORK FOR SUBSURFACE BORING AND SAMPLING

The scope of work for subsurface boring and sampling at the subject site is as follows:

- Subsurface drilling permit was not obtained from San Mateo County Health Department Groundwater Protection Program (GPP), since drilling does not extend to groundwater elevation.
- Underground Service Alert was notified.
- 14 subsurface borings were drilled and soil samples were collected from one to five feet below ground surface.
- 14 soil samples from 14 borings, S4,S5,S6,S7,S8,S9,S10, were drilled and sampled to depths of 3 feet respectively and S11, S12, S13, S14, S15, S16 and S17 were drilled and sampled to 5 feet.
- The soil samples were analyzed for tetrachloroethane (PCE), and its degraded products (trichloroethane (TCA), dichloroethane (DCA) and vinyl chloride (VC)) chemicals using appropriate EPA Methods approved by the SF Bay RWQCB.
- This report is prepared for soil sampling and analysis at the site.

SECTION-FIVE

5.0 DRILLING AND SAMPLING

Based on the approved Work Plan, soil borings were drilled at 14 locations as shown in Figure 2. The equipment and drilling procedures are explained in the following paragraphs.

Soil borings S11, S12, S13, S14, S15, S16, and S17 were drilled to 5 feet below ground surface (bgs) at the presumed direction and location of a lateral sewer line assumed to have been used by the former operator for disposal of chemical waste fluid into the City's Sanitary Sewer line. The sewer line is toward the location of the former gas station. The samples from the S11, S12, S13, S14, S15, S16, and S17 were analyzed up to 5 feet bgs. Soil boring S4, S5, S6, S7, S8, S9, and S10 were drilled to 3 feet bgs at the location of the former drycleaner's chemical waste storage area and the samples were analyzed up to 3 feet bgs. During the period the current operator used the site, drycleaner's chemical waste was collected in cylindrical metal containers and stored in 55-gallons drums for off-site disposal by Safety Clean, Inc. (see photograph of cylindrical metal containers in Appendix D). The site is now used as a collection center for drycleaning.

5.1 Drilling

The auger drill method was used to drill borings at the site for collection of soil samples. WIT performed this drilling work. The soil samples were collected using a slide hammer attached to a 2-inch diameter spilt spoon.

5.2 Collection of Soil Samples

14 soil borings, seven of which (S4, S5, S6, S7, S8, S9 and S10) were advanced below ground surface to three feet. The soil samples were collected using 2-inch diameter stainless steel samplers. During drilling, the soil samples were observed for lithology. Lithologic logs of the borings were developed at the site during drilling, and included in Appendix B of this report. The target depth of these borings is three feet.

Another seven soil borings (S11, S12, S13, S14, S15, S16 and S17) were advanced below ground surface to five feet. The soil samples were collected using 2-inch diameter stainless steel samplers. During drilling, the soil samples were observed for lithology. Lithologic logs of the borings were developed at the site during drilling, and included in Appendix B of this report. The target depth of these borings is five feet.

Stainless steel samplers with disposable PVC liners were used for collecting soil samples. The liners were removed from the stainless steel sampler, capped at both ends, labeled and kept in ice chest. The soil samples were delivered to the State-certified hazardous waste laboratory within 24 hours under proper chain-of- custody record.

To prevent cross-contamination the soil sampling equipments were washed with an Alconox solution prior to sampling from each location, and followed by two rounds of rinsing with water, and a final rinsing with de-ionized water.

5.3 Quality Assurance/Quality Control

Equipment calibration procedures and field documentation procedures were implemented by WIT field personnel. Soil samples collected were labeled with unique ID, with date and time of sampling, and initials of the sampler. The samples were shipped under proper chain of custody procedures to Accutest and McCampbell Analytical, Inc., State certified laboratories. A project diary/time log was developed for the activities performed at the site, which include:

- Project name and location;
- Contract number;
- Name, title, company performing work, including subcontractors;
- Date work is being performed;
- Actual begin and end times of work;
- Description of work being performed;
- Equipment utilized on site;
- Any observations or remarks to clarify work being performed; and
- Change orders issued if any.

In addition DDEE/WIT maintained the record of the following documents:

- Chemicals of concern from previous investigation..
- Project Field Logs: The project notebook and all field memorandums.
- Correspondence: All written correspondence and telephone conversation records.
- Data Presentation: All maps and tables generated from basic data analyses.
- Data Verification: Documentation that all tables, maps and texts using basic information have been reviewed.
- Field procedures, forms, maps, and analytical data

5.4 Borings Abandonment

The borings were backfilled to the ground surface with a ratio of neat cement grout of one sack of Portland Type I/II cement (94 lbs.) to five gallons of clean water. A 2 in steel casing was used to tremie the grout into the borings for proper seal. The steel casing was withdrawn as the grout gradually fill the borings.

SECTION-SIX

6.0 LITHOLOGY

As shown in the boring logs in Appendix B, at location S4, S5, S6, S7, S8, S9, S10, S14, S15, S16 and S17, black, sandy, silty clay with gravel (CH) was encountered in the top 2 feet bgs, which was underlain by brown silty clay (CH) up to 5 feet bgs.

At location S11, S12 and S13, clay and silt with low to medium plasticity (CH) was encountered at 5 feet bgs.

SECTION-SEVEN

7.0 LABORATORY ANALYSIS PROGRAM

The soil samples collected during this investigation were submitted to Accutect Laboratories and McCampbell Analytical, Inc. The soil samples collected during boring operations were analyzed for the following chemical constituents, according to the indicated methods (see Appendix C):

Matrix	Test
Solid	Hold
	VOCs: EPA 8260B

7.1 Summary of Analytical Results

7.1.1 Soil Analytical Results

The laboratory analytical results indicate that PCE was detected at concentration levels of 77 ug/kg (at boring location S4), 180 ug/kg (at boring location S5), 440 ug/kg (at boring location S6), 1300 ug/kg (at boring location S7 feet), 1500 ug/kg (at boring location S8), 490 ug/kg (at boring location S9), 46 ug/kg (at boring location S10) at the location of the drycleaner chemical waste storage area.

PCE was detected at concentration levels of 12 ug/kg (at boring location S11), 14 ug/kg (at boring location S12), 43 ug/kg (at boring location S13), 21 ug/kg (at boring location S14), 25 ug/kg (at boring location S15), 23 ug/kg (at boring location S16) and 44 ug/kg (at boring location S17) at the location of the former gas station along the presumed lateral sewer line direction. A summary of the analytical results is presented in Table 1.

SECTION-EIGHT

8 HANDLING OF INVESTIGATION DERIVED WASTE

At the end of remedial action (RA) at the site, DDEE will arrange with Clean Harbors Environmental Services, 1021 Berryessa, San Jose (408-451-5000) for appropriate disposal of waste generated during boring construction activities. All contaminated wastes were stored in DOT- approved 55- gallon drums, and will be disposed off-site, at a permitted landfill or a permitted recycling facility (Clean Harbors Environmental Services, 1021 Berryessa, San Jose (408-451-5000)). The generator EPA ID: and the generator code assigned by Clean Harbors will be provided in the RA report. The generator profile No: will be stated in the waste material profile sheet.

SECTION-NINE

9 SUMMARY OF FINDINGS AND RECOMMENDATION

The soil samples collected during this RI boring activities at the site indicate that the soil at the site in some areas is contaminated with PCE **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as HCS on the map in figure 2., the areas where contamination is below ESLs were labeled as LCS on the map in figure 2. The highest PCE concentration levels in the soil samples is 1.5 mg/kg between 2 and 3 feet bgs at the boring location S8 (at the drycleaner chemical waste storage area).

Interpretation of Hydrogeologic Data

Based on the general lithology of the area as indicated during previous site investigation, the soil underneath the water bearing zone at the property is generally clayey with low permeability, and low to medium plasticity. It is anticipated that the permeability of the soil is low. A low permeability of the soil in addition to flat hydraulic gradient at the site suggest that, the potential for high velocity of groundwater movement is minimal.

Impact on Beneficial Use of Surface and Groundwater

Based on current and proposed use of the subject site and adjacent properties, the chemical analytical results were compared to the SF RWQCB, Region 02, Environmental Screening Levels (ESL, 2007.) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

The remedial investigation results indicate that the soil at the site in some areas is contaminated with PCE **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. At this time there is no domestic well at the site and no surface water body in the vicinity of the site.

Conclusion and Recommendations

Based on laboratory analytical results of soil samples collected from the site, and the current regulatory guidelines, and professional judgment of DDEE staff, the conclusions and recommendations below are offered:

The subsurface soil at the site consists primarily of clay and silts and is contaminated with PCE. The areas at the site where PCE concentration level is above ESLs is labeled as HCS on the map in figure 2. The areas at the site where PCE concentration level is below ESLs is labeled as LCS on the map in figure 2.

- The laboratory analytical results indicate that the concentration levels of PCE detected in boring locations S7 (1.3 mg/kg), S8 (1.5 mg/kg) and S9 (0.49 mg/kg) in soil at the site were **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as HCS in figure 2.

- The laboratory analytical results indicate that the concentration levels of PCE detected in boring locations S4 (0.077 mg/kg), S5 (0.18 mg/kg), S6 (0.44 mg/kg), S10 (0.046 mg/kg), S11 (0.012 mg/kg), S12 (0.14 mg/kg), S13 (0.043 mg/kg), S14 (0.021 mg/kg), S15 (0.025 mg/kg), S16 (0.023 mg/kg) and S17 (0.44 mg/kg) in soil at the site were **below** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as LCS in figure 2.

- The results of previous site investigation (DDEE & WIT, December 2007) indicated concentration levels of PCE as 0.28 mg/kg at 1 ft and 0.24 mg/kg at 2 ft in boring location BW1, and 2.7 mg/kg at 2 ft and 0.72 mg/kg in boring location BW2..

The chemical contamination at the site is mainly within the shallow soil. The areas within the soil with PCE contamination levels above the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils are delineated and recommended for remediation.These areas are at the chemical waste storage area, and at the former gas station area along the presumed direction of the lateral sewer line.

In order to protect human health and the environment, and to reduce carcinogenic risk for future resident at the site, DDEE staff recommends soil excavation in areas at the drycleaner chemical waste storage area, and in areas at the former gas station along the presumed direction of the lateral sewer line where . PCE concentration levels were **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as HCS in figure 2. DDEE staff also recommends an in-situ soil remediation with oxygen reducing chemicals applied through horizontal borings at the areas below the drycleaner's building structure. After completion of the recommended remediation, a proposal for closure of the site may be recommended to the SF RWQCB for consideration. The proposal for closure of the site will be based on results obtained from evaluation of remediation of the site.

SECTION-TEN

10.0 LIMITATIONS

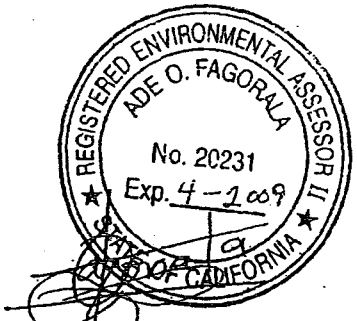
This report describes the methodology for drilling and sampling at the Kitty's Cleaners facility. The report has been reviewed by a registered civil Engineer in the State of California, his signature and license appears below.

DDEE will focus on locating the most significant sources, or potential sources for implementing remedial action. DDEE will continue a clean-up and/or monitoring program until the concentrations of the contaminant of concern has reached acceptable cleanup levels to the regulatory agencies.

DDEE's liability to Kitty's Cleaners for injury or damage to persons or property arising out of work performed for Kitty's and for which legal liability may be found to rest upon DDEE, other than for professional errors and omissions, will be limited to its general liability insurance coverage maximum limit.

For any damage on account of any error, omission, or other professional negligence, DDEE's liability will be limited to a sum not to exceed our fees.

Kitty's Cleaner shall indemnify DDEE against any claims or costs, which exceed the limitation on DDEE's liability provided in our insurance coverage, or results from acts or omissions of Kitty's Cleaners.



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SECTION-ELEVEN

11.0 REFERENCES

DDEE, December 2007, Revised Report of Soil and Groundwater Sampling at Kitty Cleaners, 910 Newbridge Street, East Palo Alto, California

Hoexter Consulting, Inc., September 27, 2006, Subsurface Investigation Report for the property located at 907 Newbridge Street, East Palo Alto, California

Waste Industries Technology (WIT) (2004). Site Investigation and Clean-up – Final Work PLAN FOR installation of Groundwater Monitoring Wells for European Auto Wrecking Located at 7324 Wells Avenue, Newark, California. December 29.

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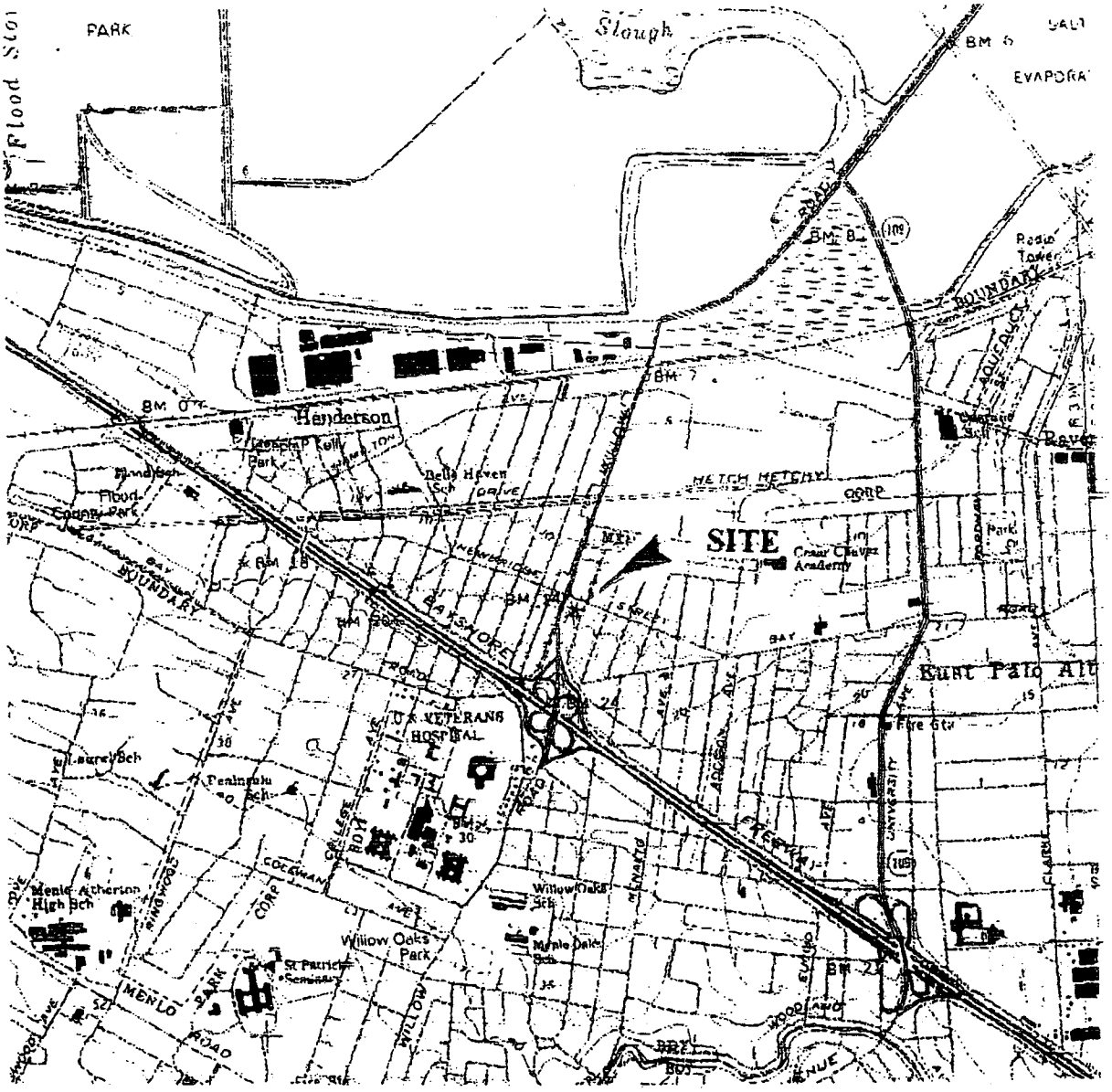
Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater – INTERIM FINAL – November 2007, CA, SF Bay RWQCB

Table - 1			
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES - RI			
REMEDIAL INVESTIGATION SOIL DATA	SAMPLE ID		Tetrachloroethene
	S4@2.5 - 3ft		77 ug/kg
	S5@2.5 - 3ft		180 ug/kg
	S6@2.5 - 3ft		440 ug/kg
	S7@2.5 - 3ft		1300 ug/kg
	S8@2.5 - 3ft		1500 ug/kg
	S9@2.5 - 3ft		490 ug/kg
	S10@2.5 - 3ft		46 ug/kg
	S11@4.5 - 5ft		ug/kg
	S12@4.5 - 5ft		14 ug/kg
	S13@4.5 - 5ft		43 ug/kg
	S14@4.5 - 5ft		21 ug/kg
	S15@4.5 - 5ft		25 ug/kg
	S16@4.5 - 5ft		23 ug/kg
	S17@4.5 - 5ft		44 ug/kg
PREVIOUS SITE INVESTIGATION-SOIL DATA	BW 1@1ft		280 ug/kg
	BW 1@2ft		240 ug/kg
	BW 2@1ft		2700 ug/kg
	BW2@5ft		720 ug/kg
All Samples were collected in June 2008			
mg/Kg = milligrams per kilogram			
ug/Kg = micrograms per kilogram			

FIGURE 1

SITE LOCATION MAP

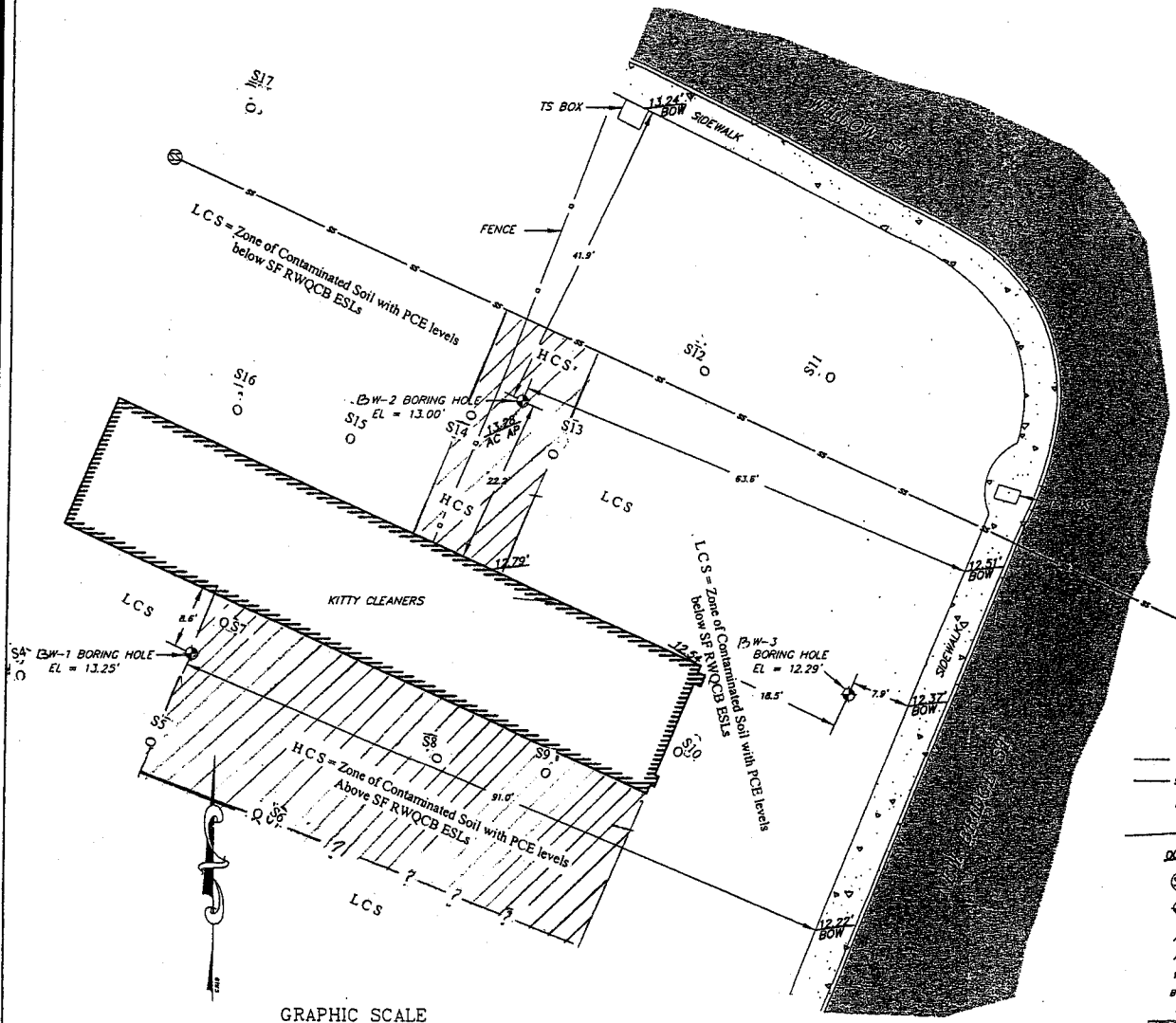


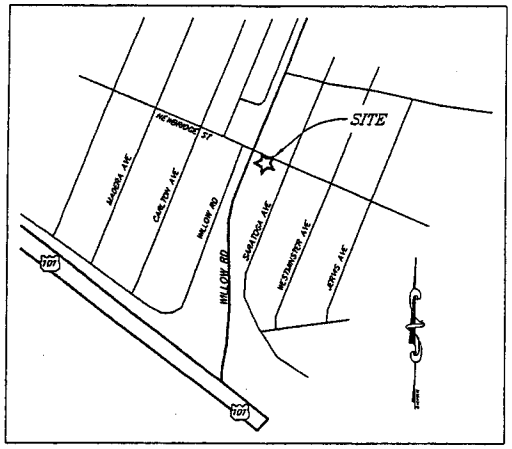
Source: USGS Palo Alto, CA. 7.5' Quadrangle, 1991

WIT	910 Newbridge Street East Palo Alto, California.	FIGURE: 1 JOB: 0060 DATE: 1/1/2007

FIGURE 2

BORING LOCATION MAP & CONTAMINATED SOIL ZONES





VICINITY MAP:
NOT TO SCALE

NOTES:

SUBJECT PARCEL OWNERS: MOHAMMED H KARWASH
MAILING ADDRESS: 5015 WEMBLEY COURT, NEWARK, CA
APN: 062-121-020

BENCHMARK:

3" BRONZE DISC SET IN CONCRETE POST .8' ABOVE GROUND IN THE EASTERN CENTERLINE ISLAND 10' EAST OF THE CURB IN THE INTERSECTION OF IVY DR AND CHILCO ST.
ELEVATION = 9.766' "BM: CITY 1"

LEGEND:

- CHAIN LINK FENCE
- SANITARY SEWER LINE
- FF FINISHED FLOOR
- EDGE OF PAVEMENT
- 00.00' SPOT ELEVATION
- SS SEWER MANHOLE
- BORING HOLE
- AP ANGLE POINT
- AC ASPHALT/CONCRETE
- WM WATER METER BOX
- BOW BACK OF SIDEWALK
- TS TRAFFIC SIGNAL VAULT
- ASPHALT
- CONCRETE

PARTIAL TOPOGRAPHIC SURVEY

910 NEWBRIDGE ST, EAST PALO ALTO, CA
SAN MATEO COUNTY

TERRA ENGINEERING CONSTRUCTION

TERRA ENGINEERING CONSTRUCTION
1318 [illegible]
[illegible]

DYUKPHICS
DRAFTING
GRAPHICS

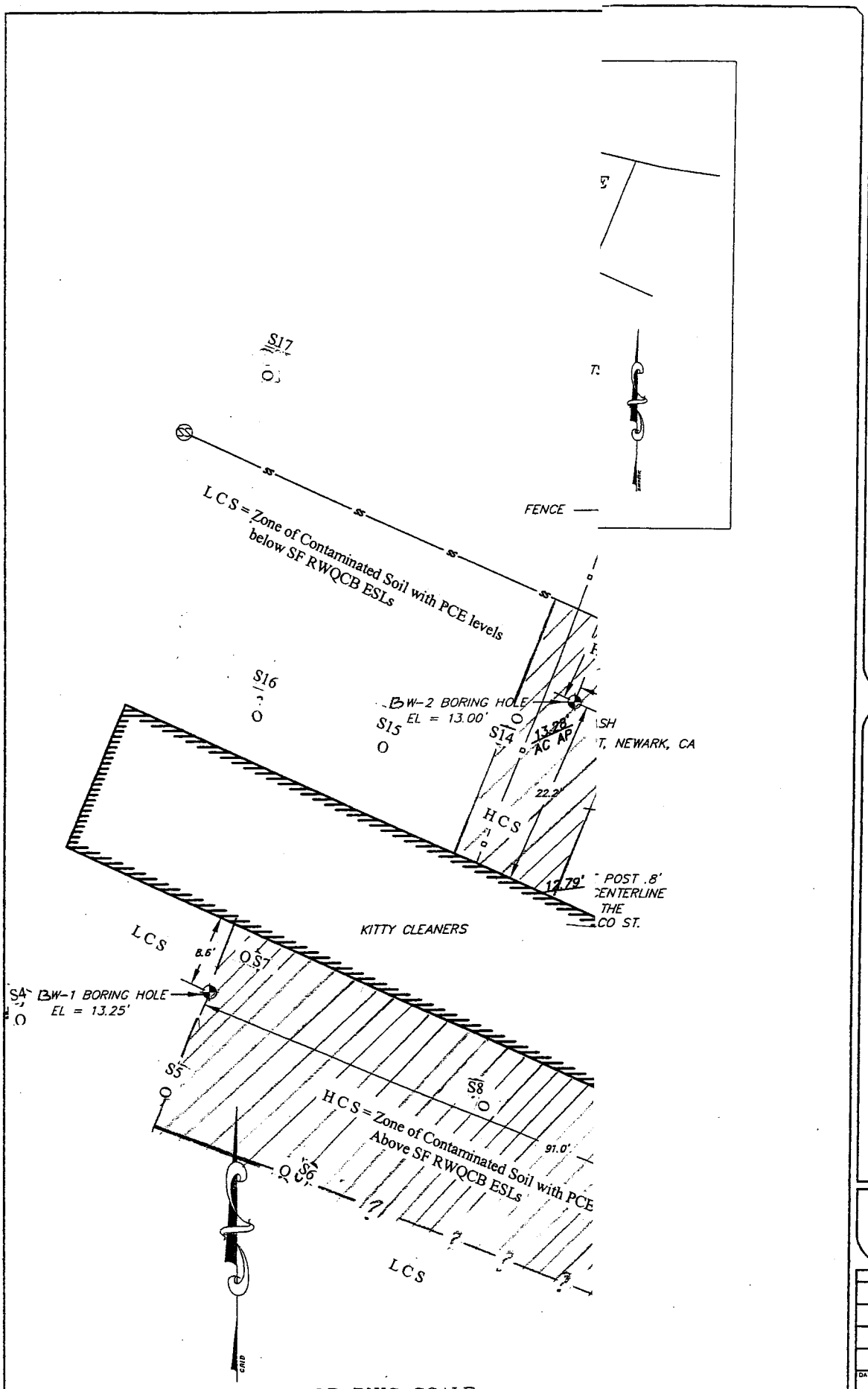
REVISIONS	BY

DATE 07\05\2007
SCALE 1"=10'
DRAWN RAM
JOB NO. NEWBRIDGE
DWG NEWBRIDGE.dwg
SHEET 1

REGISTERED PROFESSIONAL ENGINEER HASSAN M. IBRAHIM No. C 56015 CIVIL STATE OF CALIFORNIA

PREPARED AND SUBMITTED BY:

HASSAN IBRAHIM DATE



GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

PREPARED AND SUBMITTED BY:

HASSAN IBRAHIM DATE

PARTIAL TOPOGRAPHIC SURVEY

910 NEWBRIDGE ST, EAST PALO ALTO, CA
SAN MATEO COUNTY

TERRA ENGINEERING CONSTRUCTION

TERRA ENGINEERING CONSTRUCTION.
1318 Benner Avenue
FREMONT, CA 94538

DYUKPHICS
DRAFTING & GRAPHICS

REVISIONS	BY

DATE 07\05\2007
SCALE 1"=10'
DRAWN RAM
JOB NO. NEWBRIDGE
DWG NEWBRIDGE.dwg
SHEET 1

APPENDIX A

FINDINGS OF INVESTIGATION

Table - 1			
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES - RI			
REMEDIAL INVESTIGATION SOIL DATA	SAMPLE ID		Tetrachloroethene
	S4@2.5 - 3ft		77 ug/kg
	S5@2.5 - 3ft		180 ug/kg
	S6@2.5 - 3ft		440 ug/kg
	S7@2.5 - 3ft		1300 ug/kg
	S8@2.5 - 3ft		1500 ug/kg
	S9@2.5 - 3ft		490 ug/kg
	S10@2.5 - 3ft		46 ug/kg
	S11@4.5 - 5ft		ug/kg
	S12@4.5 - 5ft		14 ug/kg
	S13@4.5 - 5ft		43 ug/kg
	S14@4.5 - 5ft		21 ug/kg
	S15@4.5 - 5ft		25 ug/kg
	S16@4.5 - 5ft		23 ug/kg
	S17@4.5 - 5ft		44 ug/kg
PREVIOUS SITE INVESTIGATION-SOIL DATA	BW 1@1ft		280 ug/kg
	BW 1@2ft		240 ug/kg
	BW 2@1ft		2700 ug/kg
	BW2@5ft		720 ug/kg
All Samples were collected in June 2008			
mg/Kg = milligrams per kilogram			
ug/Kg = micrograms per kilogram			

APPENDIX B

BORING LOGS

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S4
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S4	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S5
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S5	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S6
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S6	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S7
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S7	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S8
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S8	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S9
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S9	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S10
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S10	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S11
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S11	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S12
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S12	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S13
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S13	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
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			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S14
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S14	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S15
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S15	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S16
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S16	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

DATE 6/23/08

CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S17
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10 a.m
LOCATION	S17	**DRILLING COMPLETED**	3:15p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel		
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel		
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel		

APPENDIX – C
LABORATORY ANALYTICAL RESULTS AND CHAIN OF CUSTODY RECORDS

Northern California
ACCUTEST Laboratories

CHAIN OF CUSTODY

3334 Victor Court, Santa Clara, CA 95054
(408) 588-0200 FAX: (408) 588-0201

2285 Willow Ave, Pittsburg, CA 94565 925-458-4958

Waste Industries Technologies

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C

Client / Reporting Information

Company Name: ~~D.DEE~~ WIT / ~~KAR CONTECH~~
Address: P.O. Box 72305
City: OAKLAND State: CA Zip: 94612
Project Contact: David KITTY CLEANER
Phone #: 510-258-5167
Samplers's Name: David / Hassan

Project Information

Project Name: KITTY CLEANER
Street: 910 NEWBRIDGE ST.
City: EAST PALO ALTO State: CA
Project #: SLO
EMAIL: David@ddenvironmentalengineering.com
Client Purchase Order #

Requested Analysis

8260 Full List + PCE
8260Petro (includes BTEX / MBE / TBA / EtOE / DIPE / TAME / 1,2-DCA / EDB) ☐ TPH as Gas ☐
8270 ☐ PAHs only ☐ 625 ☐ +TICs ☐
TPH-Extractable - Diesel - Motor Oil - Other ☐ With Silica Gel Cleanup ☐
METALS: CAM-17☐ LUFT-5☐ RCRA-8☐ PPM-13☐
Pesticides-8081 ☐ PCBs-8082 ☐ 608 ☐
BTEX-MBE-TPH as Gasoline by GC/FID-FID ☐

Matrix Codes

WW- Water
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

LAB USE ONLY

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	None	MeOH	NaHSO4	Encore
	S1 4.5-5ft 001	6/21/08	11pm	David	Soil	1	✓							
	S2 4.5-5ft 002	"	11:10	"	"	1	✓							
	S3 4.5-5ft 003	"	11:20	"	"	1	✓							
	S4 4.5-5ft 004	"	11:45	"	"	1	✓							
	S5 4.5-5ft 005	"	12:00	Hassan	"	1	✓							
	S6 4.5-5ft 006	"	12:15	Hassan	"	1	✓							
	S7 4.5-5ft 007	"	12:30	"	"	1	✓							
	Rec'd 2x6 Silver Tube each													
	w/22.3° Temp													

Turnaround Time (Business days)

- ☐ Std. 15 Business Days
- ☐ 10 Day (Workload dependent)
- ☑ 5 Day (Workload dependent)
- ☐ 3 Day (125% markup)
- ☐ 2 Day (150% markup)
- ☐ 1 Day (200% markup)
- ☐ Same Day (300% markup)

Approved By:/ Date:

Emergency T/A data available VIA Labiink

Data Deliverable Information

- ☐ Commercial "A" ☐
- ☒ Commercial "B" ☐
- ☐ ☐
- ☑ EDF for Geotracker ☐ EDD Format
- Provide EDF Global ID: SL06
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time: 6/23/08 1500	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Appropriate Bottle / Pres. Y / N; Labels match COC? Y / N	Headspace Y / N; Separate Receipt Log Y / N; On Ice Y / N; Cooler Temp. ____ °C

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-002 **Sample ID: S12-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:10**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-002 **Sample ID: S12-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:10**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	14		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89.2	60 - 130
Dibromofluoromethane	98.0	60 - 130
Toluene-d8	91.2	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-003 **Sample ID: S13-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:20**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-003 **Sample ID: S13-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:20**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	**43**		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.5	60 - 130
Dibromofluoromethane	99.4	60 - 130
Toluene-d8	90.6	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-004 **Sample ID: S14-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:45**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
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ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-004 **Sample ID: S14-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:45**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	21		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	91.8	60 - 130
Dibromofluoromethane	100	60 - 130
Toluene-d8	91.6	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-005 **Sample ID: S15-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:00**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
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Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-005 **Sample ID: S15-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:00**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	25		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.4	60 - 130
Dibromofluoromethane	99.2	60 - 130
Toluene-d8	92.4	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-006 **Sample ID: S16-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:15**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-006 **Sample ID: S16-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:15**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	23		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	91.7	60 - 130
Dibromofluoromethane	101	60 - 130
Toluene-d8	91.0	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST
Northern California 3334 Victor Court Santa Clara, CA 95054 Phone (408) 588-0200 Fax (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-007 Sample ID: S17-4.5-5Ft Matrix: Solid Sample Date: 06/21/2008 12:30

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST Laboratories

Northern California *3334 Victor Court. Santa Clara. CA 95054* *Phone: (408) 588-0200* *Fax: (408) 588-0201*

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-007 **Sample ID: S17-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:30**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	44		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89.6	60 - 130
Dibromofluoromethane	98.6	60 - 130
Toluene-d8	92.3	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

McCampbell Analytical, Inc.
"When Quality Counts"

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Telephone: 877-252-9262 Fax: 925-252-9269

DDEE 2285 Willow Ave. Pittsburg, CA 94565	Client Project ID: 910 Newbridge	Date Sampled: 06/06/08
		Date Received: 06/09/08
	Client Contact: David Fagorala	Date Reported: 06/12/08
	Client P.O.:	Date Completed: 06/12/08

WorkOrder: 0806222

June 12, 2008

Dear David:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **910 Newbridge,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

CHAIN OF CUSTODY RECORD

BLAINE TECH SERVICES, INC.
1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
Website: www.blainetech.com Email: sampling@blainetech.com
Telephone: (877) 254-9052 Fax: (925) 252-9269

TURN AROUND TIME: RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To:	Bill To:
Company:	
Tele: ( )	E-Mail:
Project #:	Fax: ( )
Project Location:	Project Name:
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other

Analysis Request

BTEX & TPH as Gas (EPA 602 / 8021 + 8015 / MTBE)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F)	Total Petroleum Hydrocarbons (418.1)	EPA 552.2 / 601 / 8021 (HVOCs)	MTBE (MTBE ONLY) (EPA 602 / 8021)	EPA 608 / 8081 (OC Pesticides)	EPA 625 / 8270 (PCBs ONLY) Aroclors Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 625.1 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (6010 / 7000 / 7470 / 7471)	LUFT 5 Metals (6010 / 7000 / 7470 / 7471)	Lead (7420 / 7421 / 239.2 / 6010 / 6020)	Other	Comments
																	Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/T
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

COMMENTS:

VOAS O&G METALS OTHER
PRESERVATION pH<2

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0806222 **ClientCode: DDEE**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☐ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565
(510) 258-5167 FAX (925) 458-4958

Email: wasteit@aol.com
cc:
PO:
ProjectNo: 910 Newbridge

Bill to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565

Requested TAT: 5 days

Date Received: **06/09/2008**
Date Printed: **06/09/2008**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
0806222-001	S4	Soil	6/6/2008 12:30	☐	A											
0806222-002	S5	Soil	6/6/2008	☐	A											
0806222-003	S6	Soil	6/6/2008	☐	A											
0806222-004	S7	Soil	6/6/2008	☐	A											
0806222-005	S8	Soil	6/6/2008	☐	A											
0806222-006	S9	Soil	6/6/2008	☐	A											
0806222-007	S10	Soil	6/6/2008	☐	A											

Test Legend:

1 8010BMS_S	2	3	4	5
6	7	8	9	10
11	12			

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **DDEE**
Date and Time Received: **6/9/08 5:19:14 PM**

Project Name: **910 Newbridge**
Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0806222** Matrix Soil
Carrier: Delivered to Envirotech; Picked Up By: R.P.

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 10.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

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Telephone: 877-252-9262 Fax: 925-252-9269

DDEE	Client Project ID: 910 Newbridge	Date Sampled: 06/06/08
		Date Received: 06/09/08
2285 Willow Ave.	Client Contact: David Fagorala	Date Extracted: 06/09/08
Pittsburg, CA 94565	Client P.O.:	Date Analyzed 06/11/08

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0806222

Lab ID	0806222-001A	0806222-002A	0806222-003A	0806222-004A	Reporting Limit for DF =1	
Client ID	S4	S5	S6	S7		
Matrix	S	S	S	S	S	W
DF	1	1	4	10		
Compound	**Concentration**				mg/kg	µg/L
Bromodichloromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Bromoform	ND	ND	ND<0.020	ND<0.050	0.005	NA
Bromomethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Carbon Tetrachloride	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chloroform	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chloromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Dibromochloromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,2-Dibromoethane (EDB)	ND	ND	ND<0.016	ND<0.040	0.004	NA
1,2-Dichlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,3-Dichlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,4-Dichlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Dichlorodifluoromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1-Dichloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND<0.016	ND<0.040	0.004	NA
1,1-Dichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
cis-1,2-Dichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
trans-1,2-Dichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,2-Dichloropropane	ND	ND	ND<0.020	ND<0.050	0.005	NA
cis-1,3-Dichloropropene	ND	ND	ND<0.020	ND<0.050	0.005	NA
trans-1,3-Dichloropropene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Freon 113	ND	ND	ND<0.40	ND<1.0	0.1	NA
Methylene chloride	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1,1,2-Tetrachloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Tetrachloroethene	0.077	0.18	0.44	1.3	0.005	NA
1,1,1-Trichloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1,2-Trichloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Trichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Trichlorofluoromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Vinyl Chloride	ND	ND	ND<0.020	ND<0.050	0.005	NA
Surrogate Recoveries (%)						
%SS1:	96	95	99	101		
%SS2:	106	108	86	84		
%SS3:	106	107	104	106		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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DDEE	Client Project ID: 910 Newbridge	Date Sampled: 06/06/08
		Date Received: 06/09/08
2285 Willow Ave.	Client Contact: David Fagorala	Date Extracted: 06/09/08
Pittsburg, CA 94565	Client P.O.:	Date Analyzed 06/11/08

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0806222

Lab ID	0806222-005A	0806222-006A	0806222-007A		Reporting Limit for DF =1	
Client ID	S8	S9	S10			
Matrix	S	S	S		S	W
DF	10	5	1			
Compound	**Concentration**				mg/kg	µg/L
Bromodichloromethane	ND<0.050	ND<0.025	ND		0.005	NA
Bromoform	ND<0.050	ND<0.025	ND		0.005	NA
Bromomethane	ND<0.050	ND<0.025	ND		0.005	NA
Carbon Tetrachloride	ND<0.050	ND<0.025	ND		0.005	NA
Chlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
Chloroethane	ND<0.050	ND<0.025	ND		0.005	NA
Chloroform	ND<0.050	ND<0.025	ND		0.005	NA
Chloromethane	ND<0.050	ND<0.025	ND		0.005	NA
Dibromochloromethane	ND<0.050	ND<0.025	ND		0.005	NA
1,2-Dibromoethane (EDB)	ND<0.040	ND<0.020	ND		0.004	NA
1,2-Dichlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
1,3-Dichlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
1,4-Dichlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
Dichlorodifluoromethane	ND<0.050	ND<0.025	ND		0.005	NA
1,1-Dichloroethane	ND<0.050	ND<0.025	ND		0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND<0.040	ND<0.020	ND		0.004	NA
1,1-Dichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
cis-1,2-Dichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
trans-1,2-Dichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
1,2-Dichloropropane	ND<0.050	ND<0.025	ND		0.005	NA
cis-1,3-Dichloropropene	ND<0.050	ND<0.025	ND		0.005	NA
trans-1,3-Dichloropropene	ND<0.050	ND<0.025	ND		0.005	NA
Freon 113	ND<1.0	ND<0.50	ND		0.1	NA
Methylene chloride	ND<0.050	ND<0.025	ND		0.005	NA
1,1,1,2-Tetrachloroethane	ND<0.050	ND<0.025	ND		0.005	NA
1,1,2,2-Tetrachloroethane	ND<0.050	ND<0.025	ND		0.005	NA
Tetrachloroethene	1.5	0.49	0.046		0.005	NA
1,1,1-Trichloroethane	ND<0.050	ND<0.025	ND		0.005	NA
1,1,2-Trichloroethane	ND<0.050	ND<0.025	ND		0.005	NA
Trichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
Trichlorofluoromethane	ND<0.050	ND<0.025	ND		0.005	NA
Vinyl Chloride	ND<0.050	ND<0.025	ND		0.005	NA
Surrogate Recoveries (%)						
%SS1:	99	100	98			
%SS2:	106	108	106			
%SS3:	104	104	104			
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0806222

EPA Method SW8260B	Extraction SW5030B			BatchID: 36184				Spiked Sample ID: 0806311-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chlorobenzene	ND	0.050	92.9	92.6	0.319	98.6	97.6	1.09	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	98.9	99.4	0.476	99.6	101	1.69	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	99.2	98.8	0.414	106	107	1.53	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	101	100	0.983	108	107	0.393	60 - 130	30	60 - 130	30
%SS1:	98	0.12	99	99	0	96	98	1.62	70 - 130	30	70 - 130	30
%SS2:	96	0.12	97	97	0	96	96	0	70 - 130	30	70 - 130	30
%SS3:	115	0.12	97	98	0.235	112	115	2.83	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36184 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0806222-001A	06/06/08 12:30 PM	06/09/08	06/11/08 1:42 AM	0806222-002A	06/06/08	06/09/08	06/11/08 2:24 AM
0806222-003A	06/06/08	06/09/08	06/11/08 2:03 PM	0806222-004A	06/06/08	06/09/08	06/11/08 2:46 PM
0806222-005A	06/06/08	06/09/08	06/11/08 3:28 PM	0806222-006A	06/06/08	06/09/08	06/11/08 4:11 PM
0806222-007A	06/06/08	06/09/08	06/11/08 4:54 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX D

PHOTOGRAPH OF CYLINDRICAL METAL CONTAINERS
USED FOR DISPOSAL OF CHEMICAL WASTE FLUID

SAFETY WARNING
10/01/2007 22:24

APPENDIX E

ENVIRONMENTAL SCREENING LEVELS

Table A-1. [1]Shallow Soil Screening Levels (≤3m bgs)
[2]Residential Land Use
(potentially contaminated groundwater IS a current or potential drinking water resource)

	[2]Residential Land Use (mg/kg)					
		Gross Contamination Ceiling Value (Odors, etc.)	Urban Area Ecotoxicity Criteria	Human Health		Groundwater Protection (Soil Leaching)
				Direct Exposure	Vapor Intrusion into Buildings	Drinking Water Resource
Chemical	Final ESL	Table H-2		Table K-1		Table G
Phenol	7.6E-02	5.0E+02	4.0E+01	3.7E+03		7.6E-02
Polychlorinated biphenyls (PCBs)	8.9E-02	5.0E+02	-	8.9E-02		6.3E+00
Pyrene	5.0E+02	5.0E+02	-	7.3E+02	(Use soil gas)	1.2E+03
Selenium	1.0E+01	1.0E+03	1.0E+01	7.6E+01		
Silver	2.0E+01	1.0E+03	2.0E+01	7.6E+01		
Styrene	1.5E+00	5.0E+02	-	4.8E+02	(Use soil gas)	1.5E+00
tert-Butyl alcohol	1.0E-06	1.0E+02	-	3.2E+05	(Use soil gas)	
1,1,1,2-Tetrachloroethane	2.4E-02	1.0E+02	-	2.0E+00	(Use soil gas)	2.4E-02
1,1,2,2-Tetrachloroethane	1.8E-02	5.0E+02	-	2.6E-01	(Use soil gas)	1.8E-02
Tetrachloroethene	3.4E-01	2.3E+02	-	3.4E-01	(Use soil gas)	7.0E-01
Thallium	1.2E+00	1.0E+03	-	1.2E+00		
Toluene	2.9E+00	5.0E+02	-	6.3E+01	(Use soil gas)	2.9E+00
Toxaphene	4.6E-01	5.0E+02	-	4.6E-01		6.4E+00
TPH (gasolines)	8.3E+01	1.0E+02	-	1.1E+02	(Use soil gas)	8.3E+01
TPH (middle distillates)	8.3E+01	1.0E+02	-	1.1E+02	(Use soil gas)	8.3E+01
TPH (residual fuels)	4.1E+02	5.0E+02	-	4.1E+02		
1,2,4-Trichlorobenzene	1.5E+00	5.0E+02	3.0E+01	7.8E+00	(Use soil gas)	1.5E+00
1,1,1-Trichloroethane	2.5E+01	5.0E+02	-	2.7E+02	(Use soil gas)	2.5E+01
1,1,2-Trichloroethane	7.0E-02	1.0E+02	-	4.9E-01	(Use soil gas)	7.0E-02
Trichloroethene	4.6E-01	5.0E+02	6.0E+01	1.9E+00	(Use soil gas)	4.6E-01
2,4,5-Trichlorophenol	3.2E+00	1.0E+02	1.0E+01	3.7E+02	(Use soil gas)	3.2E+00
2,4,6-Trichlorophenol	2.3E-01	5.0E+02	1.0E+01	1.2E+00		2.3E-01
Vanadium	1.5E+01	1.0E+03	2.0E+02	1.5E+01		
Vinyl chloride	2.1E-02	5.0E+02	6.0E+01	2.1E-02	(Use soil gas)	8.5E-02
Xylenes	2.3E+00	4.2E+02	-	3.1E+01	(Use soil gas)	2.3E+00
Zinc	6.0E+02	1.0E+03	6.0E+02	4.6E+03		

Table C-1. [1]Deep Soil Screening Levels (>3m bgs)
[2]Residential Land Use
(potentially contaminated groundwater IS a current or potential drinking water resource)

	[2]Residential Land Use (mg/kg)				
		Gross Contamination Ceiling Value (Odors, etc.)	Human Health		Groundwater Protection (Soil Leaching)
			Direct Exposure	Vapor Intrusion Into Buildings	Drinking Water Resource
Chemical	Final ESL	Table H-3	Table K-3		Table G
Phenanthrene	4.9E+02	1.0E+03	1.2E+04	(Use soil gas)	4.9E+02
Phenol	7.6E-02	1.0E+03	1.2E+05		7.6E-02
Polychlorinated biphenyls (PCBs)	3.4E+00	1.0E+03	3.4E+00		6.3E+00
Pyrene	1.0E+03	1.0E+03	2.3E+04	(Use soil gas)	1.2E+03
Selenium	2.5E+03	2.5E+03	3.6E+03		
Silver	2.5E+03	2.5E+03	3.6E+03		
Styrene	1.5E+00	1.0E+03	1.5E+03	(Use soil gas)	1.5E+00
tert-Butyl alcohol		5.0E+02	3.2E+05	(Use soil gas)	
1,1,1,2-Tetrachloroethane	2.4E-02	5.0E+02	1.7E+02	(Use soil gas)	2.4E-02
1,1,2,2-Tetrachloroethane	1.8E-02	1.0E+03	2.2E+01	(Use soil gas)	1.8E-02
Tetrachloroethene	7.0E-01	2.3E+02	2.2E+01	(Use soil gas)	7.0E-01
Thallium	5.7E+01	2.5E+03	5.7E+01		
Toluene	2.9E+00	6.5E+02	6.5E+02	(Use soil gas)	2.9E+00
Toxaphene	6.4E+00	1.0E+03	2.2E+01		6.4E+00
TPH (gasolines)	8.3E+01	5.0E+03	4.2E+03	(Use soil gas)	8.3E+01
TPH (middle distillates)	8.3E+01	5.0E+03	1.5E+02	(Use soil gas)	8.3E+01
TPH (residual fuels)	5.0E+03	5.0E+03	1.5E+04		
1,2,4-Trichlorobenzene	1.5E+00	1.0E+03	3.1E+02	(Use soil gas)	1.5E+00
1,1,1-Trichloroethane	2.5E+01	1.0E+03	1.2E+03	(Use soil gas)	2.5E+01
1,1,2-Trichloroethane	7.0E-02	5.0E+02	4.3E+01	(Use soil gas)	7.0E-02
Trichloroethene	4.6E-01	1.0E+03	1.2E+02	(Use soil gas)	4.6E-01
2,4,5-Trichlorophenol	3.2E+00	5.0E+02	1.4E+04	(Use soil gas)	3.2E+00
2,4,6-Trichlorophenol	2.3E-01	1.0E+03	4.1E+01		2.3E-01
Vanadium	7.1E+02	2.5E+03	7.1E+02		
Vinyl chloride	8.5E-02	1.0E+03	1.9E+00	(Use soil gas)	8.5E-02
Xylenes	2.3E+00	4.2E+02	4.2E+02	(Use soil gas)	2.3E+00
Zinc	2.5E+03	2.5E+03	2.1E+05		

Notes:

1. Deep soils defined as soils situated >3 meters below ground surface (or shallower with institutional controls).

2. "Residential Land Use" screening levels generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.).

Final Environmental Screening Level is lowest of ceiling values (nuisance concerns etc.), direct-exposure, indoor-air impact, and leaching screening levels.

Soil data should be reported on dry-weight basis (see Section 6.2).

TPH -Total Petroleum Hydrocarbons. See text for discussion of different TPH categories.

Revised Report
of
Soil and Groundwater Sampling

at

Kitty's Cleaners
910 Newbridge Street
East Palo Alto, California

Prepared for

Mr. & Mrs. Karwash
5015 Wembley Court
Newark, California 94560

Prepared by WIT, Inc. & DDEE, Inc.
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December, 2007
DDEE Project #0070

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EXECUTIVE SUMMARY EX-1

This report documents collection and laboratory analysis of soil and groundwater samples from exploratory borings at the Kitty's Cleaner located at 910 Newbridge Street, East Palo Alto, California (Site). This sampling was conducted by Waste Industries Technologies, Inc (WIT). The report has been revised by Dave Drilling & Environmental Engineering, Inc., on behalf of Mr. and Mrs Karwash.

The Soil and Groundwater Sampling involved 3 major tasks in order to accomplish the project objective. The objective of the project is to determine any presence of residual chemicals, specifically PCE and its degraded products, and TPH. These chemicals are products of drycleaning reagents used at the site, and petroleum hydrocarbon (TPH) from former gas station at the site.

The tasks are as follow:

- **Drilling three soil borings** at the site, soil boring BW2 was drilled to 25 feet below ground surface (bgs) at the location of the former gas station along a presumed direction of a lateral sewer line, and the samples were analyzed up to 20 feet bgs, soil boring BW1 was drilled to 24 feet bgs at the location of the former drycleaner's chemical waste storage area and the samples were analyzed up to 20 feet bgs, and soil borings BW3 was located along the downgradient area, toward the groundwater flow direction. BW3 was drilled to 15 feet bgs and the soil samples were analyzed up to 15 feet bgs.

  Drycleaner's chemical waste fluid was collected in cylindrical metal containers and stored in 55-gallons drums for collection and off-site disposal by Safety Clean, Inc., during the period that the site was operated by the current drycleaning operator (see photograph of cylindrical metal containers in Appendix D). The former operator at the site is suspected to have used a lateral sewer line in the north direction of the site, toward the location of the former gas station. The direction of the City's Sanitary Sewer Line is toward the north area of the site.

- **Collecting 17 soil samples and 3 groundwater samples** and **submitting samples for laboratory analysis.** 3 groundwater samples and 12 soil samples were analyzed because laboratory analysis of the samples collected at the site indicated values below regulatory standards and/or no detection at deeper depths (below 20 feet (bgs)).

- **Submitting report** of sampling and findings of the field investigation, containing laboratory analysis results and recommendations.

The laboratory analytical results obtained from testing soil and groundwater at the site indicate that PCE and TPH are present at the site (see Table 1).

SOIL - DDEE concludes that, maximum concentration levels of PCE (2.7 mg/Kg at 1 foot below ground surface) and TPH as motor oil (1400 mg/Kg at 5 feet below ground surface) were detected in soil at the

west area of the site, and at the location of the former gas station along the presumed direction of a lateral sewer line.

GROUNDWATER - The maximum concentration of PCE in groundwater was detected in the west area of the site at concentration level of 6.4 ug/L. Groundwater pollution at other areas of the site is below regulatory standards. TPH was not detected in groundwater at the site.

INTRODUCTION

DDEE and Waste Industries Technologies, Inc (WIT) were retained by Mr. and Mrs. Karwash to implement soil and groundwater sampling at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The investigation was a response to a request for additional soil and groundwater sampling by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006). The caseworker on this project for GPP is Mr. Charles Ice, Hazardous Materials Specialist. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC), the Regional Water Quality Control Board and the City of East Palo Alto.

The history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the current owner of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Gas Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road was sold back to Mr. Conelly. In 1986, Mr. Conelly sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. They have operated this dry cleaner since 1980. Before 1980, the dry cleaning had been owned and operated by Richard Shandy. According to the Gablins, dry cleaning operations were not performed since 1990 at the Kitty's Cleaners facility. Mr. M. Karwash believes that, Caltrans, Mr. Conelly, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations may have contaminated the soil.

There are no records indicating releases at the dry cleaners facility. Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United Soil Engineering (USE, 1994) indicated that, the former Conley's Mobile Service gas station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

PROJECT OBJECTIVE

The objective of this project is to **collect** soil and groundwater samples from three subsurface borings, at the Kitty's Cleaners located at 910 Newbridge Street, and the former Conley's gas station located at 904 Newbridge Street, and **analyze** the samples for PCE and TPH as diesel and motor oil.

GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 13 feet MSL. as measured during a recent survey at the site. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006).

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

Groundwater moisture was observed from 10 to 20 feet below ground surface (bgs) during drilling. Groundwater later stabilized and was measured at depths between 11 to 12.3 feet. Groundwater generally flows to the north and northeast, towards San Francisco Bay. Based on USE (1994), water was present in soil borings at a nearby site at a depth of 12 feet and is variably identified at depths ranging from 8 to 13 feet Groundwater level from recent investigation at the site varies between 11 to 12.3 feet (bgs).

DRILLING

The direct push technology combined with hollow stem auger drill method was utilized to drill subsurface borings at the site for collection of soil samples. A C57, State of California licensed driller was

subcontracted to perform the drilling work. The soil samples were collected using 2-inch diameter brass split spoon. Groundwater samples were collected when water stabilized, using PVC bailers.

SECTION-ONE

1.0 INTRODUCTION

DDEE and Waste Industries Technologies, Inc (WIT) were retained by Mr. and Mrs. Karwash to implement soil and groundwater sampling at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California and the former Conely's gas station located at 904 Newbridge Street, East Palo Alto, California. The investigation was a response to a request for additional soil and groundwater sampling by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

A Workplan that describes the scope of work for soil and groundwater sampling, work schedule, sampling procedure, laboratory analysis program, and the field procedures for this project was submitted for approval prior to conducting field work. The caseworker for this project at the GPP is Mr. Charles Ice, Hazardous Materials Specialist.

1.1 BACKGROUND

The history of ownership of the dry cleaners property and adjacent properties as reported by the Mr. M. Karwash is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Gas Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road. was widened. Caltrans removed two underground storage tanks at the location of the current highway, The remaining land from the former gas station that was not utilized while widening Willow Road was sold back to Mr. Conelly. In 1986, Mr. Conelly sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. They have operated this dry cleaner since 1980. Before 1980, the dry cleaning had been owned and operated by Richard Shandy. According to the Gablins, cleaning operations were not performed since 1990 at the Kitty's Cleaners facility. Mr. M. Karwash believes that, Caltrans, Mr. Conelly, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations may have contaminated the soil.

There are no records indicating releases at the dry cleaners facility. A previous report by United Soil Engineering (USE, 1994) indicated that, the Conley's Mobile Service gas station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station indicated that, both diesel and dry cleaning fluid (PCE) were detected at very low concentration

levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources.

SECTION-TWO

2.0 PROJECT OBJECTIVE

The objective of this project is to **collect** soil and groundwater samples from three subsurface borings, at the Kitty's Cleaners located at 910 Newbridge Street, and the former Conley's gas station located at 904 Newbridge Street, and **analyze** the **soil and groundwater samples for PCE and diesel.** The subject site is upgradient and opposite to the property at 907 Newbridge Street in East Palo Alto, where diesel and dry cleaning fluid (PCE) were detected at very low concentration levels (below MCLs) in groundwater as indicated in a report dated September 27, 2006, prepared by Hoexter Consulting, Inc. and submitted to the San Mateo County Health Department Groundwater Protection Program (GPP).

2.1 SITE LOCATION

The subject site is located at 910 Newbridge Street, and 904 Newbridge Street, East Palo Alto, California in the industrial, partly residential and commercial area of the city of East Palo Alto, California. The subject site is the Kitty's Cleaners and the former Conely's Gas Station facility. The site is on the northwest side of Newbridge Street between Saratoga Avenue and Willow Road. The site has been used for drycleaning and gas station facilities for many years.

2.2 LOCAL GEOLOGY

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

Groundwater moisture was observed in soil from 10 to 20 feet below ground surface (bgs) during drilling. Groundwater later stabilized and was measured at depths between 11 to 12.3 feet (bgs). Groundwater generally flows to the north and northeast, towards San Francisco Bay. Based on USE (1994), water was present in soil borings at a nearby site at a depth of 12 feet (bgs) and is variably identified at depths ranging from 8 to 13 feet (bgs) Groundwater level from recent investigation at the site varies between 11 to 12.3 feet (bgs).

SECTION-THREE

3.0 GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 16 feet MSL. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006). .

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and clay with medium plasticity from 20 to 24 feet.

Groundwater moisture was observed from 10 to 20 feet below ground surface (bgs) during drilling. Groundwater later stabilized and was measured at depths between 11 to 12.3 feet. Groundwater generally flows to the north and northeast, towards San Francisco Bay. Based on USE (1994), water was present in soil borings at a nearby site at a depth of 12 feet and is variably identified at depths ranging from 8 to 13 feet (bgs) Groundwater level from recent investigation at the site varies between 11 to 12.3 feet (bgs).

SECTION-FOUR

4.0 SCOPE OF WORK FOR SUBSURFACE BORING AND SAMPLING

The scope of work for subsurface boring and sampling at the subject site is as follows:

- Subsurface drilling permit was obtained from San Mateo County Health Department Groundwater Protection Program (GPP).
- Underground Service Alert was notified.
- Three subsurface borings were drilled and soil and groundwater samples were collected in the uppermost water bearing zone.
- 17 soil and three groundwater samples from three borings, BW1 and BW2 were drilled to depths of 24 and 25 feet respectively and BW3 was drilled to 15 feet.
- The soil and groundwater samples were analyzed for tetrachloroethane (PCE), and its degraded products (trichloroethane (TCA), dichloroethane (DCA) and vinyl chloride (VC)) and total petroleum hydrocarbon as diesel and motor oil, and BETEX chemicals using appropriate EPA Methods approved by GPP.
- This report is prepared for soil and groundwater sampling at the site.

SECTION-FIVE

5.0 DRILLING, TEMPORARY WELL INSTALLATION, AND SAMPLING

Based on the approved Work Plan, soil borings were drilled at three locations as shown in Figure 2. The equipment and drilling procedures are explained in the following paragraphs.

Soil boring BW2 was drilled to 25 feet below ground surface (bgs) at the presume direction and location of a lateral sewer line assumed to have been used by the former operator for disposal of chemical waste fluid into the City's Sanitary Sewer line. The sewer line is toward the location of the former gas station. The samples from the BW2 were analyzed up to 20 feet bgs. Soil boring BW1 was drilled to 24 feet bgs at the location of the former drycleaner's chemical waste storage area and the samples were analyzed up to 20 feet bgs. Soil boring BW3 was located along the downgradient area, towards the groundwater flow direction. MW3 was drilled to 15 feet bgs and the soil samples were analyzed up to 15 feet bgs. During the period the current operator used the site, drycleaner's chemical waste was collected in cylindrical metal containers and stored in 55-gallons drums for off-site disposal by Safety Clean, Inc. (see photograph of cylindrical metal containers in Appendix D). The site is now used as a collection center for drycleaning.

5.1 Drilling

The hollow stem auger method combined with direct push method was used to drill borings at the site for collection of soil samples. HEW Drilling Company of Palo Alto, California, a C57, State of California licensed driller, was subcontracted to perform this work. The soil samples were collected using 2-inch diameter spilt spoon. The temporary wells were installed in the borings drilled using an 8-inch diameter hollow stem auger.

5.2 Collection of Soil Samples

Three borings, BW-1, BW-2, and BW-3, were advanced below ground surface to 24 feet, 25 feet and 15 feet respectively. The soil samples were collected using 2-inch diameter stainless steel samplers. During drilling, the continuous soil samples were observed for lithology. Lithologic logs of the borings were developed at the site during drilling, and included in Appendix B of this report. Soil samples were collected from two soil borings (BW1 & BW2) at 1 feet, 2 feet, 5 feet, 10 feet, 15 feet, 20 feet, and 24 feet depths, depending on the target depth of a boring. Soil samples were collected from the third (BW-3) soil borings at 5 feet intervals since dry cleaning and gas service operations did not occur at this downgradient location, any evidence of contamination is expected mainly in groundwater at this downgradient location.

Stainless steel samplers with disposable PVC liners were used for collecting soil samples. The liners were removed from the stainless steel sampler, capped at both ends, labeled and kept in ice chest. The

soil samples were delivered to the State-certified hazardous waste laboratory within 24 hours under proper chain-of- custody record.

To prevent cross-contamination the soil sampling equipments were washed with an Alconox solution prior to sampling from each location, and followed by two rounds of rinsing with water, and a final rinsing with de-ionized water.

5.3 Temporary Well Installation

Temperature, pH, and Conductivity Meter was calibrated prior to sampling each day. The meter was used during purging to collect temperature, pH, and conductivity data. A Solinst Water Level meter was used for measuring the depth to groundwater from the temporary wells.

The soil samples were collected using 2-inch diameter split spoon sampler. The borings were drilled to approximately 25. 24 and 15 feet deep below ground surface (bgs). During drilling, continous soil samples were observed for lithology. Lithologic logs of the borings were developed at the site during drilling.

Upon reaching the target depths, a 2-inch nominal diameter PVC casing (between 5 to 10 feet) with flush threaded connections wrapped with tapes attached to a 2-inch diameter screen (between 5 to 10 feet), and a bottom cap was installed suspended at the ground surface in each boring. The casing and the screen were lowered into the boreholes to approximately 20 feet bgs for BW1 & BW2, and less than 15 feet for BW3. The screen was installed such that the top of the screen is one foot above the water table. Centralizers were attached to the casing and the screen to keep the well vertically aligned in the borehole.

5.4 Temporary Well Development and Groundwater Sampling

The three temporary wells (BW1, BW2 and BW3) were installed at the former drycleaning facility, the former gas station, and at a downgradient location close to the Newbridge Street. Soil boring BW2 was drilled at the location of the former gas station along a presumed lateral sewer line direction, soil boring BW1 was drilled at the location of the drycleaner's chemical waste storage area, and soil boring BW3 was located along the downgradient area, toward the groundwater flow direction.

WIT geologist and geotechnical engineer developed the temporary monitoring wells with disposable bailers using "surge and purge method". Each temporary well was purged with a separate disposable PVC bailer.

Prior to purging the temporary wells, depth to water level was measured using a Solinst groundwater level meter probing to an accuracy of approximately 0.01 foot. The measurement was made to the top of the well casing on the surveyed side. While purging, the parameters for temperature, pH, specific conductivity, and turbidity were monitored for stabilization. After the parameters stabilized, and a minimum of three well volumes was purged, groundwater samples were collected from each well. Groundwater was decanted from the disposable Teflon bailer into the appropriate laboratory-certified containers with the appropriate preservatives for chemical analysis. The containers were sealed, labeled with a unique sample ID, the Facility name, project number, name of sampler, and date and time of

sample collection; and placed into ice-chilled coolers. Samples were placed under chain-of-custody for transportation to the laboratory.

To prevent cross-contamination all sampling equipments were washed with an Alconox solution prior to sampling each of the wells, this was followed by two rounds of rinsing with water, and a final rinsing with de-ionized water. Purged water and other rinsate were contained in 55-gallon drums for proper disposal.

5.5 Quality Assurance/Quality Control

Equipment calibration procedures and field documentation procedures were implemented by WIT field personnel. Soil and groundwater samples collected were labeled with unique ID, with date and time of sampling, and initials of the sampler. The samples were shipped under proper chain of custody procedures to Entech Analytical Labs, Inc., a State certified laboratory. A project diary/time log was developed for the activities performed at the site, which include:

- Project name and location;
- Contract number;
- Name, title, company performing work, including subcontractors;
- Date work is being performed;
- Actual begin and end times of work;
- Description of work being performed;
- Equipment utilized on site;
- Any observations or remarks to clarify work being performed; and
- Change orders issued if any.

In addition WIT maintained the record of the following documents:

- Chemicals of concern from previous investigation..
- Project Field Logs: The project notebook and all field memorandums.
- Correspondence: All written correspondence and telephone conversation records.
- Data Presentation: All maps and tables generated from basic data analyses.
- Data Verification: Documentation that all tables, maps and texts using basic information have been reviewed.
- Field procedures, forms, maps, and analytical data

5.6 Borings Abandonment

Temporary casings and screens were removed from the borings. The borings were then backfilled to the ground surface with a ratio of neat cement grout of one sack of Portland Type I/II cement (94 lbs.) to five gallons of clean water. A 2 in steel casing was used to tremie the grout into the borings for proper seal. The steel casing was withdrawn as the grout gradually fill the borings.

SECTION-SIX

6.0 LITHOLOGY

As shown in the boring logs in Appendix B, at location BW-1, black, sandy, silty clay with gravel (CH) was encountered in the top 2 feet bgs, which was underlain by brown silty clay (CH) up to 5 feet bgs. From 5 to 10 feet bgs, moist fine sand, silty soil (ML) was encountered. From 10 to 15 feet bgs, saturated well graded coarse sand and gravel (SW) was encountered. From 15 feet to 20 feet bgs, a mixture of saturated sand and clay was encountered (SC). From 20 to 24 feet bgs, clay and silts with low to medium plasticity (CL) was encountered. The groundwater was first encountered at approximately 12 feet bgs., and later stabilized at 12.33 feet bgs.

As shown in the boring logs in Appendix B, at location BW-2, black silt, sand with gravel (CH) was encountered in the top 2 feet bgs, which was underlain by brown silty clay (CH) up to 5 feet bgs. From 5 to 10 feet bgs, mixture of moist silt, clayey fine sand (ML) was encountered. From 10 to 15 feet bgs, saturated well graded sand and gravel (SW) was encountered. From 15 feet to 20 feet bgs, a saturated sand and clay (SC) was encountered. From 20 to 24 feet bgs, clay and silts with medium plasticity (CL) was encountered. The groundwater was first encountered at approximately 15 feet bgs., and later stabilized at 12.33 feet bgs.

At location BW-3, clay and silt with low to medium plasticity (CH) was encountered at 5 feet bgs. From 5 to 10 feet bgs, moist fine sand, silt and clay (ML) was encountered. From 10 feet to 15 feet bgs, saturated well graded sand, and gravel (SW) was encountered. The groundwater was first encountered at approximately 12 feet bgs., and later stabilized at 11.83 feet bgs.

SECTION-SEVEN

7.0 GROUNDWATER LEVELS AND FLOW DIRECTION

The depth to groundwater level in the three monitoring wells was measured after stabilization of groundwater level in the wells upon purging. The groundwater elevations were calculated and the data were shown below

	Ground surface Elevation (ft)	Depth to Water Level (ft)	Groundwater Elevation (ft)
BW1	13.25	12.33	0.92
BW2	13.00	12.33	0.67
BW3	12.29	11.83	0.46

Based on these elevation values, it was concluded that, the groundwater flow is toward northeast at the site (see Figure 3). The approximate gradient based on these elevations is 0.005 ft/ft. The groundwater flow direction in January 2007, is the same as reported by Hoexter Consulting, Inc.

SECTION-EIGHT

8.0 LABORATORY ANALYSIS PROGRAM

The soil and groundwater samples collected during this investigation were submitted to Entech Analytical Labs, Inc. The soil and groundwater samples collected during well installation were analyzed for the following chemical constituents, according to the indicated methods (see Appendix C):

Matrix	Test
Liquid	TPH-Extractable with SGCU: EPA 3510C/EPA 3630C/EPA8015B(M) TPH-Purgeable: GC/MS VOCs: EPA 5030C/EPA 8260B for Groundwater and Water – EPA 624 for Wastewater
Solid	Hold TPH- Extractable with SGCU: EPA 3630C/EPA8015B(M) VOCs: EPA 8260B

8.1 Summary of Analytical Results

8.1.1 Soil Analytical Results

The laboratory analytical results indicate that TPH-g, TPH-d, MTBE and BTEX were not detected at the laboratory detection limits, in any of the soil samples collected from the site. The chemicals of concern are TPH-motor oil and PCE.

TPH-motor oil

TPH-motor oil was not detected at boring location BW-1 (the location of the drycleaner chemical waste storage area). TPH-motor oil was detected at concentration levels of 20 mg/kg (at 2 feet), 1400 mg/kg (at 5 feet) and 1000 mg/kg (at 10 feet) at boring location BW2 (at the location of the former gas station along the presumed lateral sewer line direction). TPH-motor oil was detected at concentration levels of 19 mg/kg (at 5 feet) and 170 mg/kg (at 15 feet) at boring location BW3 (the downgradient location).

PCE

PCE was detected at concentration levels of 280 ug/kg (at 1 feet), 240 ug/kg (at 2 feet), 42 ug/kg (at 5 feet), 120 ug/kg (at 10 feet), ND (at 15 feet) and 16 ug/kg (at 20 feet) at boring location BW-1 (the location of the drycleaner chemical waste storage area).

PCE was detected at concentration levels of 2700 ug/kg (at 1 feet), 390 ug/kg (at 2 feet), 720 ug/kg (at 5 feet), 210 ug/kg (at 10 feet), 6.5 ug/kg (at 15 feet) and ND (at 20 feet) at boring location BW-2 (at the location of the former gas station along the presumed lateral sewer line direction).
PCE was detected at concentration levels of ND (at 5 feet), 19 ug/kg (at 10 feet) and ND (at 15 feet) at boring location BW-3 (at the downgradient location). A summary of the analytical results is presented in Table 1.

8.1.2 Groundwater Analytical Results

The laboratory analytical results indicate that TPH-g, TPH-d, TPH-motor oil, MTBE and BTEX were not detected at/or above the laboratory detection limits in any of the groundwater samples collected from the site.

PCE

The groundwater analytical results indicate that PCE was detected in groundwater at concentration levels of 3.1 ug/L, 6.4 ug/L and 2.9 ug/L at boring locations BW-1, BW-2 and BW-3 respectively. Other VOCs were not detected in the groundwater samples. A summary of the analytical results is presented in Table 1.

SECTION-NINE

9 HANDLING OF INVESTIGATION DERIVED WASTE

WIT had arranged with Clean Harbors Environmental Services, 1021 Berryessa, San Jose (408-451-5000) for appropriate disposal of waste, purge and decontaminated water generated during boring construction activities. All contaminated wastes, decontamination water and purge water were stored in DOT- approved 55- gallon drums, and were disposed off-site, at a permitted landfill or a permitted recycling facility (Clean Harbors Environmental Services, 1021 Berryessa, San Jose (408-451-5000)). The generator EPA ID: is CAC002619552 and the generator code assigned by Clean Harbors is M13796. The generator profile No: CH269906 is stated in the waste material profile sheet in Appendix E.

SECTION-TEN

10 SUMMARY OF FINDINGS AND RECOMMENDATION

The soil and groundwater samples collected during boring activities at the site indicate that the soil and groundwater at the site are contaminated with TPH motor oil and PCE. The maximum concentration of TPH-motor oil in soil was 1400mg/kg (at 5 feet bgs) at boring location BW-2. The TPH-motor oil level in boring locations BW-1 is ND, and the TPH maximum concentration level in BW-3 is 170 mg/kg (at 15 feet bgs). The highest PCE concentration levels in the soil samples is 2.7 mg/kg at 1 feet bgs at the boring location BW-2 (at the former gas station location in the presumed direction of the lateral sewer line).

The TPH-motor oil concentration level was not-detected in groundwater samples. PCE in groundwater varied between 2.9 ug/L and 6.4 ug/L. Other VOCs were not detected in groundwater.

Interpretation of Hydrogeologic Data

Based on the general lithology of the area, the soil underneath the water bearing zone at the property is generally clayey with low permeability, and low to medium plasticity. It is anticipated that the permeability of the soil is low. A low permeability of the soil in addition to flat hydraulic gradient at the site suggest that, the potential for high velocity of groundwater movement is minimal.

Impact on Beneficial Use of Surface and Groundwater

Based on current and proposed use of the subject site and adjacent properties, the chemical analytical results were compared to CDHS and USEPA maximum contaminant levels (MCLs) for groundwater. The soil chemical results were compared to the SF RWQCB, Region 02, Environmental Screening Levels (ESL, 2007.) for shallow and deep soils at residential land use areas, where groundwater is a current or potential source of drinking water.

The site investigation results suggest that there has been some release of chemical materials at the site. It appears unlikely that deep groundwater at the site has been impacted by the operations at the Kitty's Cleaners and the former Conley's Gas Station. At this time there is no domestic well at the site and no surface water body in the vicinity of the site.

Conclusion and Recommendations

Based on laboratory analytical results of soil and groundwater samples collected from the site, and the current regulatory guidelines, and professional judgment of WIT & DDEE staff, the conclusions and recommendations below are offered:

The subsurface soil below 20 feet (bgs), which is the soil layer below the water bearing zone at the site consists primarily of clay and silts with low to medium plasticity. It is anticipated that, the permeability of

the soil layer below the water bearing zone is low. A low permeability of the soil in addition to flat hydraulic gradient at the site suggests that, the potential for high velocity of groundwater movement is minimal.

- Groundwater was encountered between 10 and 11 feet during drilling. Groundwater elevation was measured at 0.92 feet in BW-1, and at 0.67 feet in boring BW-2. Groundwater elevation was measured at 0.46 feet in BW-3, during sampling in January 2007. The groundwater gradient at this site is relatively flat (0.005 ft/ft).

- The laboratory analytical results indicate that TPH-g, TPH-d, MTBE and BTEX were not detected at the laboratory detection limits, in any of the soil samples collected from the site. The chemicals of concern are TPH-motor oil and PCE.

- The laboratory analytical results indicate that TPH-g, TPH-d, TPH-motor oil, MTBE and BTEX were not detected at/or above the laboratory detection limits in any of the groundwater samples collected from the site.

- The highest concentration levels of **TPH-motor oil (1400 mg/Kg)** detected **in deep soils** at the site were **below** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for deep soils at residential land use areas, where groundwater is a current or potential source of drinking water.

- The highest concentration levels of **TPH-motor oil (20 mg/Kg)** detected **in shallow soils** at the site were **below** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential land use areas, where groundwater is a current or potential source of drinking water.

- The highest concentration levels of **PCE (720 ug/Kg)** detected **in deep soil** at the site were **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for deep soils at residential land use areas, where groundwater is a current or potential source of drinking water.

- The highest concentration levels of **PCE (2700 ug/Kg)** detected **in shallow soil** at the site were **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential land use areas, where groundwater is a current or potential source of drinking water.

- The highest concentration levels of **PCE (6.4 ug/L)** were detected **in groundwater above** its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

The chemical contamination at the site is mainly within the shallow soil and it extends to 5 feet bgs at the former gas station along the presumed direction of the lateral sewer line.

In order to protect human health and the environment, and to reduce carcinogenic risk for future resident at the site, DDEE/WIT recommend soil excavation in the drycleaner chemical waste storage area, and at the former gas station area along the presumed direction of the lateral sewer line. Oxygen releasing chemicals may be applied in the excavated area prior to backfilling with clean soils. Further investigation may be implemented to determine the limits of soil excavation. After completion of the recommended remediation, a proposal for closure of the site may be recommended to the GPP for consideration. The proposal for closure of the site will be based on results obtained from evaluation of remediation of the site.

SECTION-ELEVEN

11.0 LIMITATIONS

This report describes the methodology for drilling, temporary well installation, and sampling at the Kitty's Cleaners facility. The report has been reviewed by a registered civil Engineer in the State of California, his signature and license appears below.

WIT will focus on locating the most significant sources, or potential sources for implementing remedial action. WIT will continue a clean-up and/or monitoring program until the concentrations of the contaminant of concern has reached acceptable cleanup levels to the regulatory agencies.

WIT's liability to Kitty's Cleaners for injury or damage to persons or property arising out of work performed for Kitty's and for which legal liability may be found to rest upon WIT, other than for professional errors and omissions, will be limited to its general liability insurance coverage maximum limit.

For any damage on account of any error, omission, or other professional negligence, WIT's liability will be limited to a sum not to exceed our fees.

Kitty's Cleaner shall indemnify WIT against any claims or costs, which exceed the limitation on WIT's liability provided in our insurance coverage, or results from acts or omissions of Kitty's Cleaners.

David A. O Fagorala, REA II
Project Environmental Assessor
Waste Industries Technologies,Inc.
P.O. Box 72305
Oakland, CA 94612
(510) 258-5167

Hassan Ibrahim, PE
Project Engineer
Waste Industries Technologies, Inc.
P.O. Box 72305
Oakland, CA 94612
(510) 258- 5167

SECTION-TWELVE

12.0 REFERENCES

Hoexter Consulting, Inc., September 27, 2006, Subsurface Investigation Report for the property located at 907 Newbridge Street, East Palo Alto, California

Waste Industries Technology (WIT) (2004). Site Investigation and Clean-up – Final Work PLAN FOR installation of Groundwater Monitoring Wells for European Auto Wrecking Located at 7324 Wells Avenue, Newark, California. December 29.

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Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater – INTERIM FINAL – November 2007, CA, SF Bay RWQCB

California Regional Water Quality Control Board
San Francisco Bay Region

Linda S. Adams
Secretary for
Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

Date: May 29, 2008
File No. 41S0177 (mej)

Mr. M. Karwash
5015 Wembley Court
Newark, California 94560

Re: Site Cleanup Program (SCP)-- recovery of oversight costs at the Kitty's Cleaners, 910 Newbridge Street, East Palo Alto, San MateoCounty.

Dear Mr. Karwash:

Water Board staff has reviewed the data regarding the contamination found at the subject site. As discussed with your consultant, it appears that soil contamination consists of both petroleum hydrocarbons and tetrachloroethene. The contamination threatens to adversely affect the beneficial uses of groundwater. These beneficial uses include municipal and domestic supply, agricultural supply, industrial service and process water supply. This contamination threatens to cause a condition of pollution in waters of the State, and should be fully delineated and abated in the shortest reasonable period of time.

Water Code §13304 allows the Water Board to recover reasonable expenses for overseeing the investigation and cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely affecting or threatening to adversely affect the State's waters. It is our intent to recover such costs for regulatory oversight work conducted in accordance with this section. To assure that sufficient Water Board staff resources are available to conduct the necessary reviews and approvals, we intend to include this site in this Region's SCP Cost Recovery Program, more fully described in the attached Reimbursement Process for Regulatory Oversight (Attachment 1).

Estimate of Work to be Performed and Expected Outcome

Water Board staff will be actively overseeing the investigation and cleanup of this site. Given this, Water Board staff estimate that the following work will be performed for the site during fiscal year (FY) 2008/2009, ending June 30, 2009: 1) Review work plans, investigation reports, remediation plans and associated correspondence from the discharger, its consultant and/or interested parties; 2) Conduct site inspections; 3) Conduct meetings regarding the site on issues relevant to site cleanup; and 4) Discuss issues related to the site and prepare written correspondence between the Water Board and interested parties. In accordance with Water Code

§13365, we will identify more detailed, specific outcomes in the future as work progresses and more site-specific data become available.

Billing Rates

Attachment 1 provides a detailed description of the billing procedure. Attachment 2 lists the billing rates for employees expected to engage in the work or services for your site/facility. We estimate that 50 hours will be required in the oversight of the site for the remainder of the State's fiscal year which ends June 30, 2009. This is merely an estimate. The actual time needed will depend on the nature and extent of the necessary oversight. The name and classification of employees making charges will be listed on invoices. The average billing rate is approximately $135 per hour. An estimate for any necessary work after June 30, 2009, will be provided in late spring of 2009.

Please acknowledge in writing your intent to reimburse the State for cleanup oversight work as described in this letter and Attachment 1. Please return Attachment 3, or its equivalent, by June 20, 2008.

If you have any questions concerning this letter, please contact Mark Johnson of my staff at (510) 622-2493, [e-mail mjohnson@waterboards.ca.gov].

Sincerely,

for

Digitally signed by Stephen Hill
Date: 2008.05.29 12:30:12 -07'00

Bruce H. Wolfe
Executive Officer

Attachment 1 - Reimbursement Process for Regulatory Oversight
Attachment 2 - Billing Rates
Attachment 3 - Acknowledgment Letter

ATTACHMENT 1

REIMBURSEMENT PROCESS FOR REGULATORY OVERSIGHT

We have identified your facility or property as requiring regulatory cleanup oversight. Pursuant to the Porter-Cologne Water Quality Control Act, reasonable costs for such oversight can be recovered by the Regional Water Quality Control Board (Regional Water Board) from the responsible party. The purpose of this enclosure is to explain the oversight billing process structure.

Introduction

The Porter-Cologne Water Quality Control Act authorizes the State Water Resources Control Board (State Water Board) to set up Cost Recovery Programs. The Budget Act of 1993 authorized the State Water Board to establish a Cost Recovery Program for the Site Cleanup Program (SCP). The program is set up so that reasonable expenses incurred by the State Water Board and Regional Water Boards in overseeing cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the State's waters can be reimbursed by the responsible party. Reasonable expenses will be billed to responsible parties and collected by the Fee Coordinator at the State Water Board in the Division of Financial Assistance.

The Billing System

Each cost recovery account has a unique charge number assigned to it. Whenever any oversight work is done, the hours worked are charged to the account number on the employee's time sheet. The cost of the hours worked is calculated by the State Accounting System based on the employee's salary and benefit rate and the State Water Board overhead rate.

State Water Board and Regional Water Board administrative charges for work such as accounting, billing preparation, general program meetings and program specific training cannot be charged directly to an account. This work will be charged to administrative accounting codes. The Accounting Office totals these administrative charges for the billing period and distributes them back to all of the accounts based on the number of hours charged to each account during that billing period. These charges show as State Water Board Program Administrative Charges and Regional Water Board Program Administrative Charges on the Invoice.

The Overhead Charges are based on the number of labor hours charged to the account. The overhead charges consist of rent, utilities, travel, supplies, training, and personnel services. If there is no labor charged to the account during the billing period, there will be no overhead charges for that billing period with the exception of the last month of each fiscal year. This is due to the fact that the labor charges end June 30 for the current fiscal year. However, several kinds of overhead charges such as supply orders and travel expenses are paid after the fiscal year ends. The State Water Board Accounting Office keeps track of these charges and distributes them back to all of the accounts based on the number of hours charged to each account for the whole fiscal year that has just ended. Therefore, the quarterly statements for the last month of the fiscal year could show no labor hours charged for the billing period, but some overhead charges could be charged to the account.

Invoices are issued quarterly, one quarter in arrears. If a balance is owed, a check is to be remitted to the State Water Board with the invoice remittance stub within 30 days after receipt of the invoice. The Accounting Office sends a report of payments to the Fee Coordinator on a quarterly basis.

Copies of the invoices are sent to the appropriate Regional Water Boards so that they are aware of the oversight work invoiced. Questions regarding the work performed should be directed toward your Regional Water Board project manager. If the responsible party becomes delinquent in its quarterly

payments, oversight work may cease immediately. Work will not begin again unless the payments are brought up-to-date.

Daily Logs

A detailed description (daily log) of the actual work being done at each specific site is kept by each employee in the Regional Water Board who works on cleanup oversight at the property. This information is provided on the quarterly invoice using standardized work activity codes to describe the work performed. *Upon request, a more detailed description of the work performed is available from the Regional Water Board staff.*

Removal From The Billing System

After the cleanup is complete, the Regional Water Board will submit a closure form to the State Water Board to close the account. If a balance is due, the Fee Coordinator will send a final billing for the balance owed. The responsible party should then submit a check to the State Water Board to close the account.

Agreement

No cleanup oversight will be performed unless the responsible party of the property acknowledges that it agrees to reimburse the State for appropriate cleanup oversight costs. You may wish to consult an attorney in this matter. As soon as the letter is received, the account will be added to the active SCP Cost Recovery billing list and oversight work will begin.

Regional Water Board Dispute Resolution

Based on the Regional Water Board's review and comment, the following section has been added as a San Francisco Bay Regional Water Board attachment to the SCP Cost Recovery Program's "Guide to the Billing Process" enclosure, "Reimbursement Process for Regulatory Oversight".

The Regional Water Board staff proposes to provide each responsible party (upon request) with daily logs of actual oversight work done and supporting accounting information for the responsible party's site. If, upon the receipt of the billing statement, the responsible party disputes the amount due, the responsible party may follow the dispute resolution procedure described below. If the responsible party follows the procedure, the Regional Water Board will not initiate, except as noted, enforcement action for failure to reimburse the State Water Board. During this procedure, the responsible party is encouraged to confer with Regional Water Board staff at any time to discuss the areas in question and attempt to resolve the dispute.

1. The responsible party must notify the Regional Water Board in writing within 30 calendar days of receipt of the billing statement to indicate that it disputes the billing statement and requests a meeting with the Regional Water Board Assistant Executive Officer. This notification must indicate the specific areas of dispute and provide all appropriate support documentation. Upon completion of the meeting, the Assistant Executive Officer will provide a recommendation to the Regional Water Board Executive Officer on the dispute and recommend an amount due, based on documentation provided by both the responsible party and the Regional Water Board staff at the meeting. The Executive Officer will submit a written decision and resultant amount due to the responsible party and specify the new due date by which the resultant amount due must be paid to avoid enforcement action. This due date will be not less than ten working days from the date of the Executive Officer's written decision.

2. If, upon receipt of the Executive Officer's written decision, the responsible party still disputes the amount due and so notifies the Executive Officer by the new due date, the Executive Officer will schedule an appeal hearing of the decision before the Regional Water Board at the next appropriate monthly meeting. The Executive Officer may also consider recommending that the Regional Water Board take enforcement action for the responsible party's failure to pay the resultant amount due by the new due date if the Regional Water Board finds the responsible party's appeal without basis. Any amount due and not appealed to the Regional Water Board will be considered a violation of the Regional Water Board's order.

California Code of Regulations - Dispute Resolution

If a dispute regarding oversight charges cannot be resolved with the Regional Water Board, Section 13320 of the California Water Code provides an appeal process to Regional Water Board decisions. Regulations implementing Water Code Section 13320 are found in Title 23 of the California Code of Regulations, Section 2050.

ATTACHMENT 3

SITE CLEANUP PROGRAM (SCP)
BILLING COST EXPLANATION

Employee Salary and Benefits by Classification [1]	ABR	SALARY SCALE
Associate Governmental Program Analyst	AGPA	5,852 - 7,113
Engineering Geologist	EG	5,691 - 10,173
Environmental Scientist	ES	4,092 - 7,597
Office Assistant	OA	3,091 - 3,759
Office Technician	OT	3,572 - 3,264
Principal Water Resources Control Engineer	PWRCE	13,090 -14,434
Sanitary Engineering Associate	SEA	6,597 - 8,016
Sanitary Engineering Technician	SET	5,216 - 6,339
Senior Engineering Geologist	SEG	9,811 –11,923
Senior Environmental Scientist	SRES	7,248 - 8,749
Senior Water Resources Control Engineer	SWRCE	9,811 –11,923
Staff Counsel	STCOUN	8,442 –10,411
Staff Counsel III	STCOUNIII	10,217 –12,606
Staff Counsel IV	STCOUNIV	11,286 –13,934
Staff Environmental Scientist	SES	7,242 - 8,845
Student Assistant	SA	2,663 - 3,985
Student Assistant Engineer	SAE	2,663 - 3,985
Supervising Water Resources Control Engineer	SUWRCE	10,769 –13,090
Water Resources Control Engineer	WRCE	7,914 - 9,577

Indirect Charges[2]

Indirect costs	100% of salaries and benefits
Accounting administrative costs	15% of salaries and benefits
Regional Board administrative costs	20% of salaries and benefits

Billing Example

Water Resources Control Engineer

Salary:	$	10,131
Overhead (indirect costs):	$	10,131
Admin.: State Board	$	1,520
Regional Board	$	2,026
Total Cost per month	$	23,808

Divided by 176 hours per month equals per hour: $ 135.27

(Due to the various classifications that expend SLIC resources, an average of $ 135.00 per hour can be used for projection purposes.)

1 The name and classification of employees performing oversight work will be listed on the invoice you receive.

2 The examples are estimates based on recent billings. Actual charges may be slightly higher or lower.

Revised – 04-30-08

ATTACHMENT 3

ACKNOWLEDGMENT OF RECEIPT OF OVERSIGHT COST REIMBURSEMENT ACCOUNT LETTER

I, _____, acting within the authority vested in me as an authorized representative of _____ _____, a corporation, acknowledge that I have received and read a copy of the attached *REIMBURSEMENT PROCESS FOR REGULATORY OVERSIGHT* and the cover letter dated _____ concerning cost reimbursement for Water Board staff costs involved with oversight of cleanup and abatement efforts at Kitty Cleaners. The address for this site is 910 Newbridge Street, East Palo Alto.

I understand the reimbursement process and billing procedures as explained in the letter. Our company is willing to participate in the cost recovery program and pay all subsequent billings in accordance with the terms in your letter and its attachments, *and to the extent required by law*. I also understand that signing this form does not constitute any admission of liability, but rather only an intent to pay for costs associated with oversight, *as set forth above, and to the extent required by law*. Billings for payment of oversight costs should be mailed to the following individual and address:

BILLING CONTACT _____

BILLING ADDRESS _____

_____

_____

TELEPHONE NO. _____

RESPONSIBLE PARTY'S SIGNATURE _____
(Signature)

_____
(Title)

DATE: _____

Staff: **(mej)**

HEALTH DEPARTMENT

CALIFORNIA REGIONAL WATER
MEJ
APR 09 2008
QUALITY CONTROL BOARD

April 4, 2008

SMCo Site #899028
APN 062-121-020/310

Mohammed Karwash
1209 Willow Road
Menlo Park, CA 94025

Lee and Margaret Gamblin
Kitty Cleaners
910 Newbridge Street
East Palo Alto, CA 94303

SUBJECT: **KITTY CLEANERS, 910 NEWBRIDGE STREET EAST PALO ALTO, CALIFORNIA**

Dear Mr. Karwash and Mr. and Mrs. Gamblin:

Thank you for the February 27, 2008 *Revised Report of Soil and Groundwater Sampling* submitted by Waste Industries Technologies and your letter dated March 29, 2008 for the above referenced site. San Mateo County Health Department Groundwater Protection Program (GPP) has not completely reviewed the revised report submitted in hard copy form. In fact, the report submittal is not considered complete because it has not been uploaded to the State of California's Geotracker database as required by law. This site has not even been claimed in Geotracker by the responsible parties. These are both requirements under current law regardless of who the lead agency is. It appears your consultant has had great difficulty in helping you comply with the law. This seems unusual because all sites like this have been required to comply with this law since July 1, 2005. Included is a list of consultants which will most likely be able to assist you in successfully complying with the law. For your information, GPP had created this site in Geotracker on April 10, 2007. It was assigned a global identification number of SL0608107863 at that time by the State Water Resources Control Board. This is, at least, one piece of information your consultant has been unable to find for almost one year now. Obviously, this has resulted in your chronic non-compliance at this site. Of note, only the report is required to be uploaded. The analytical data, boring logs, and a map do not need to be electronically uploaded separately from the report. However, all future submittals will require these additional, separate uploads as required by law.

If you want the Regional Water Quality Control Board (RWQCB) to be the lead agency, then you need to submit either a Brownfields Memorandum of Agreement (MOA) application (http://www.waterboards.ca.gov/rwqcb2/brownfields.shtml#brownfields) or a Site Designation Committee application (http://www.calepa.ca.gov/Programs/SiteDesig/) to the RWQCB or Department of Toxic Substances Control (DTSC), respectively. GPP will not do this for you. Through the Brownfields MOA or Site Designation process, the site may actually end up with the DTSC. At this point in time, GPP has a Remedial Action Agreement with Mr. Karwash and will continue to act as the lead agency under this agreement. GPP has some additional concerns regarding your consultant's recommendations based on the language in the March 29, 2008 letter.

The March 29, 2008 letter seems to imply the only other activity which will be necessary prior to case closure or the best option at this time is soil excavation. This may be based on the recommendation included in the February 27, 2008 report. GPP staff considers this recommendation to be premature and potentially an extremely costly assumption. The extent of contamination has not been defined at this site. Any excavation could potentially grow well beyond the originally identified areas ultimately to the limits of the extent of the contamination. This could cause excavation to actually become more expensive than some other remedial technology which could have addressed the contamination more cost-effectively. In general, it is better to know the extent of contamination through investigation rather than during remediation.

The report indicates boring B-2 is located in the presumed area of a sewer lateral. Of note, the exact location of the sewer lateral may not be known which could cause the excavation to be greater than anticipated until the sewer lateral is actually encountered. Additionally, if the sewer lateral outside of the building is potentially a transport and release mechanism for the contaminants, then the sewer lateral under the building may also be associated with the contamination. It does not appear the areas intended for excavation include any areas under the current building. Therefore, it appears contaminants potentially at their highest concentrations on-site may be left on-site directly underneath the existing building. Of note, the vapor intrusion pathway has not been evaluated at this site which could potentially have the greatest impact to occupants of the current building and any potential future construction on site.

The report recommendation appears to indicate oxygen-releasing chemicals would be applied to the excavations potentially to assist any residual contaminants to naturally degrade. At this site, tetrachloroethene (PCE) appears to be the most important contaminant of concern. This type of chemical actually degrades more quickly in an oxygen-deprived environment. Therefore, the proposed addition of oxygen-releasing chemicals may actually inhibit the contaminants from naturally degrading at the most beneficial rate.

Finally, the only three borings advanced at the site detected concentrations of contaminants in groundwater close to the Maximum Contaminant Level for drinking water. However, if a major release point for the contaminants was actually inside or underneath the current building or in some other location not assessed by the only three borings advanced at the site, then higher concentrations of contaminants may actually be located at the site.

Any responsible party may do whatever they want on property they can obtain access to and not potentially cause additional harm to human health or the environment. GPP will only prevent a proposed activity if it may cause additional harm to human health or the environment. However, GPP believes the most cost-effective path for moving this site to closure includes extent definition in all media, exposure pathway assessment and clean up goal determination, remedial alternative evaluation and potential testing, and finally remedial action with confirmation sampling. Overall, the proposals of your current consultant may not be in line with general industry standards. Again, GPP is included a list of consultants which may be able to assist you in the investigation and remediation of this site more in line with general industry standards.

At this point in time, GPP is requiring you to claim this site and submit the revised report to Geotracker **as soon as possible**. Please also submit a work plan to define the extent of contamination in all media by **July 25, 2008**. You may upload a remedial excavation plan to Geotracker as well; however, GPP staff may not be able to review it by the time you wish to proceed with the excavation. If you wish to move forward with excavation at this site, then please notify GPP 3-business days prior to the start of the excavation at the site. I would appreciate your cooperation. Deno Milano is now the case manager for this site. If you have any additional questions, please call me at (650) 363-4565 or Deno at (650) 363-4972.

Sincerely,

Charles Ice
Hazardous Materials Specialist
Groundwater Protection Program

Gregory J. Smith, PG
Supervisor
Water Programs Specialist

cc: David A.O. Fagorala, Waste Industries Technologies, PO Box 72305, Oakland, CA 94612
Mark Johnson, RWQCB, 1515 Clay Street, Suite 1400, Oakland, CA 94612

Remedial Investigation Report of Contaminated Soil

at

Kitty's Cleaners
910 Newbridge Street
East Palo Alto, California

Prepared for

Mr. & Mrs. Karwash
5015 Wembley Court
Newark, California 94560

Prepared by DDEE/WIT, Inc.
P.O. Box 72305, Oakland, California 94612
website:ddenvironmentalengineering.com

Phone: (510) 258 5167
Fax: (925) 458 4958

July, 2008
DDEE Project #0070

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EXECUTIVE SUMMARY EX-1

This report documents collection and laboratory analysis of soil samples for remedial investigation (RI), from exploratory borings at the Kitty's Cleaner located at 910 Newbridge Street, East Palo Alto, California (Site). This sampling was conducted by DDEE on behalf of Mr. and Mrs Karwash.

This Soil RI involved 3 major tasks in order to accomplish the project objective. The objective of the project is to determine any presence of residual chemicals, specifically PCE and its degraded products in shallow soil approximately 5 feet below ground surface (bgs). These chemicals are products of drycleaning reagents used at the site and were detected in shallow depth during previous site investigation at the waste chemical storage area and the presumed direction of lateral sewer line.

The tasks are as follow:

- **Drilling 14 soil borings** at the site, S13, S14, S15 & S16 borings were drilled to 5 feet below ground surface (bgs) at the location of the former gas station along a presumed direction of a lateral sewer line, and S11, S12 and S17 soil borings were drilled close to the City's Sanitary Sewer Line, and soil samples were collected and analyzed up to 5.0 feet bgs. Soil borings S4, S5, S6, S7, S8, S9 & S10 were drilled to 2.5 feet bgs at the location of the former drycleaner's chemical waste storage area and soil samples were collected and analyzed up to 3.0 feet bgs. 3 and 5 feet shallow depths were targeted for sampling because PCE were detected in shallow soil up to 5 feet bgs, above its Environmental Screening Levels during the previous investigation at the site.

  Drycleaner's chemical waste fluid was collected in cylindrical metal containers and stored in 55-gallons drums for collection and off-site disposal by Safety Clean, Inc., during the period that the site was operated by the current drycleaning operator (see photograph of cylindrical metal containers in Appendix D). The former operator at the site is suspected to have used a lateral sewer line in the north direction of the site, toward the location of the former gas station. The former gas station (now Exxon Mobil gas) also operated an auto repair/oil change workshop at the site. The direction of the City's Sanitary Sewer Line is toward the north area of the site (see figure 2).

- **Collecting 14 soil samples** and **submitting samples for laboratory analysis.** 14 soil samples were analyzed.

- **Submitting report** of sampling and findings of the RI, containing laboratory analysis results and recommendations.

The laboratory analytical results obtained from testing soil indicate that PCE is present at many locations at shallow depths up to 5 feet at the site (see Table 1 & Figure 2).

INTRODUCTION

DDEE was retained by Mr. and Mrs. Karwash to implement remedial investigation (RI) for the contaminated soil at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The RI is the next stage to the site investigation, where PCE was detected above its environmental screening levels (ESLs) in soils at shallow depths. The site investigation was requested by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

The lead agency caseworker on this RI project is Mr. Mark Johnson, an Engineering Geologist of the SF Bay Regional Water Quality Control Board. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), San Mateo County Health Department, Department of Toxic Substances Control (DTSC), and the City of East Palo Alto.

This is the history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the list of owners of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Mobile Gas Service Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road, was sold back to Mr. Conley. In 1986, Mr. Conley sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. Before 1980, the dry cleaning facility was owned and operated by Richard Shandy. According to the Gamblins, the Kitty's Cleaners facility was only used for collection of materials for dry cleaning since 1990. Mr. M. Karwash believes that, Caltrans, Mr. Conley, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations have contaminated the soil at the subject properties.

There are no records indicating releases at the Kitty's Cleaners facility. However the revised report of soil and groundwater sampling prepared by DDEE/WIT Inc. (December 2007), for the property located at 910 Newbridge Street, the Kitty's Cleaners and the former Colnley's Mobile Gas Station properties, indicated that TPH as diesel was not detected at the site, TPH as motor oil was detected in shallow and deep soils below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and dry cleaning fluid PCE were detected in shallow soils above the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and the highest concentration levels of PCE (6.4 ug/L) detected in groundwater was above its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United

Soil Engineering (USE, 1994) indicated that, the former Conley's Mobile Service gas station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

PROJECT OBJECTIVE

The objective of this project is to **collect** soil samples from 14 subsurface borings, at the Kitty's Cleaners located at 910 Newbridge Street, and the former Conley's gas station located at 904 Newbridge Street, and **analyze** the samples for PCE.

GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 13 feet MSL. as measured during a recent survey at the site. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006).

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area as shown from previous site investigation is relatively uniform as indicated from the subsurface drilling. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

DRILLING

The auger drill method was utilized to drill subsurface borings and a slide hammer attached to a split soil core sampler with steel liner was used at the site for collection of soil samples. A C57, State of California licensed driller was not subcontracted to perform the drilling work because the subsurface drilling did not extend to groundwater level. The soil samples were collected using 2-inch diameter steel split spoon.

SECTION-ONE

1.0 INTRODUCTION

DDEE was retained by Mr. and Mrs. Karwash to implement remedial investigation (RI) for the contaminated soil at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The RI is the next stage to the site investigation, where PCE was detected above its environmental screening levels (ESLs) in soils at shallow depths. The site investigation was requested by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

The lead agency caseworker on this RI project is Mr. Mark Johnson, an Engineering Geologist of the SF Bay Regional Water Quality Control Board. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), San Mateo County Health Department, Department of Toxic Substances Control (DTSC), and the City of East Palo Alto.

A Workplan that describes the scope of work for soil RI, work schedule, sampling procedure, laboratory analysis program, and the field procedures for this project was submitted for approval prior to conducting field work.

1.1 BACKGROUND

The history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the current owner of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Mobile Gas Service Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road, was sold back to Mr. Conley. In 1986, Mr. Conley sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. Before 1980, the dry cleaning facility was owned and operated by Richard Shandy. According to the Gamblins, the Kitty's Cleaners facility was only used for collections of materials for dry cleaning since 1990. Mr. M. Karwash believes that, Caltrans, Mr. Conley, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations have contaminated the soil the subject site.

There are no records indicating releases at the Kitty's Cleaners facility. However the revised report of soil and groundwater sampling prepared by DDEE/WIT Inc. (December 2007), for the property located at 910

Newbridge Street, the Kitty's Cleaners and the former Colnley's Mobile Gas Station properties, indicated that TPH as diesel was not detected at the site, TPH as motor oil was detected in shallow and deep soils below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and dry cleaning fluid PCE were detected in shallow soils above the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and the highest concentration levels of PCE (6.4 ug/L) detected in groundwater was above its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United Soil Engineering (USE, 1994) indicated that, the former Conley's Mobile Service Gas Station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

SECTION-TWO

2.0 PROJECT OBJECTIVE

The objective of this project is to **collect** soil samples from 14 subsurface borings, at the Kitty's Cleaners located at 910 Newbridge Street, and the former Conley's Mobile gas service station located at 904 Newbridge Street, and **analyze** the **soil samples for PCE,** and use the results **to separate zones in shallow depths with PCE chemical levels higher than SF Bay ESLs** for residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

2.1 SITE LOCATION

The subject site is located at 910 Newbridge Street, and 904 Newbridge Street, East Palo Alto, California in the industrial, partly residential and commercial area of the city of East Palo Alto, California. The subject site is the Kitty's Cleaners and the former Conely's Mobile Gas Service Station facility. The site is on the northwest side of Newbridge Street between Saratoga Avenue and Willow Road. The site has been used for drycleaning and gas station facilities for many years.

2.2 LOCAL GEOLOGY

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling during a previous site investigation. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

SECTION-THREE

3.0 GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 16 feet MSL. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006). .

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling during a previous site investigation. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and clay with medium plasticity from 20 to 24 feet.

The subsurface investigation for this RI project was limited to the shallow soil up to five feet since PCE was the chemical of concern detected above the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow and deep soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

SECTION-FOUR

4.0 SCOPE OF WORK FOR SUBSURFACE BORING AND SAMPLING

The scope of work for subsurface boring and sampling at the subject site is as follows:

- Subsurface drilling permit was not obtained from San Mateo County Health Department Groundwater Protection Program (GPP), since drilling does not extend to groundwater elevation.
- Underground Service Alert was notified.
- 14 subsurface borings were drilled and soil samples were collected from one to five feet below ground surface.
- 14 soil samples from 14 borings, S4,S5,S6,S7,S8,S9,S10, were drilled and sampled to depths of 3 feet respectively and S11, S12, S13, S14, S15, S16 and S17 were drilled and sampled to 5 feet.
- The soil samples were analyzed for tetrachloroethane (PCE), and its degraded products (trichloroethane (TCA), dichloroethane (DCA) and vinyl chloride (VC)) chemicals using appropriate EPA Methods approved by the SF Bay RWQCB.
- This report is prepared for soil sampling and analysis at the site.

SECTION-FIVE

5.0 DRILLING AND SAMPLING

Based on the approved Work Plan, soil borings were drilled at 14 locations as shown in Figure 2. The equipment and drilling procedures are explained in the following paragraphs.

Soil borings S11, S12, S13, S14, S15, S16, and S17 were drilled to 5 feet below ground surface (bgs) at the presumed direction and location of a lateral sewer line assumed to have been used by the former operator for disposal of chemical waste fluid into the City's Sanitary Sewer line. The sewer line is toward the location of the former gas station. The samples from the S11, S12, S13, S14, S15, S16, and S17 were analyzed up to 5 feet bgs. Soil boring S4, S5, S6, S7, S8, S9, and S10 were drilled to 3 feet bgs at the location of the former drycleaner's chemical waste storage area and the samples were analyzed up to 3 feet bgs. During the period the current operator used the site, drycleaner's chemical waste was collected in cylindrical metal containers and stored in 55-gallons drums for off-site disposal by Safety Clean, Inc. (see photograph of cylindrical metal containers in Appendix D). The site is now used as a collection center for drycleaning.

5.1 Drilling

The auger drill method was used to drill borings at the site for collection of soil samples. WIT performed this drilling work. The soil samples were collected using a slide hammer attached to a 2-inch diameter spilt spoon.

5.2 Collection of Soil Samples

14 soil borings, seven of which (S4, S5, S6, S7, S8, S9 and S10) were advanced below ground surface to three feet. The soil samples were collected using 2-inch diameter stainless steel samplers. During drilling, the soil samples were observed for lithology. Lithologic logs of the borings were developed at the site during drilling, and included in Appendix B of this report. The target depth of these borings is three feet.

Another seven soil borings (S11, S12, S13, S14, S15, S16 and S17) were advanced below ground surface to five feet. The soil samples were collected using 2-inch diameter stainless steel samplers. During drilling, the soil samples were observed for lithology. Lithologic logs of the borings were developed at the site during drilling, and included in Appendix B of this report. The target depth of these borings is five feet.

Stainless steel samplers with disposable PVC liners were used for collecting soil samples. The liners were removed from the stainless steel sampler, capped at both ends, labeled and kept in ice chest. The soil samples were delivered to the State-certified hazardous waste laboratory within 24 hours under proper chain-of- custody record.

To prevent cross-contamination the soil sampling equipments were washed with an Alconox solution prior to sampling from each location, and followed by two rounds of rinsing with water, and a final rinsing with de-ionized water.

5.3 Quality Assurance/Quality Control

Equipment calibration procedures and field documentation procedures were implemented by WIT field personnel. Soil samples collected were labeled with unique ID, with date and time of sampling, and initials of the sampler. The samples were shipped under proper chain of custody procedures to Accutest and McCampbell Analytical, Inc., State certified laboratories. A project diary/time log was developed for the activities performed at the site, which include:

- Project name and location;
- Contract number;
- Name, title, company performing work, including subcontractors;
- Date work is being performed;
- Actual begin and end times of work;
- Description of work being performed;
- Equipment utilized on site;
- Any observations or remarks to clarify work being performed; and
- Change orders issued if any.

In addition DDEE/WIT maintained the record of the following documents:

- Chemicals of concern from previous investigation..
- Project Field Logs: The project notebook and all field memorandums.
- Correspondence: All written correspondence and telephone conversation records.
- Data Presentation: All maps and tables generated from basic data analyses.
- Data Verification: Documentation that all tables, maps and texts using basic information have been reviewed.
- Field procedures, forms, maps, and analytical data

5.4 Borings Abandonment

The borings were backfilled to the ground surface with a ratio of neat cement grout of one sack of Portland Type I/II cement (94 lbs.) to five gallons of clean water. A 2 in steel casing was used to tremie the grout into the borings for proper seal. The steel casing was withdrawn as the grout gradually fill the borings.

SECTION-SIX

6.0 LITHOLOGY

As shown in the boring logs in Appendix B, at location S4, S5, S6, S7, S8, S9, S10, S14, S15, S16 and S17, black, sandy, silty clay with gravel (CH) was encountered in the top 2 feet bgs, which was underlain by brown silty clay (CH) up to 5 feet bgs.

At location S11, S12 and S13, clay and silt with low to medium plasticity (CH) was encountered at 5 feet bgs.

SECTION-SEVEN

7.0 LABORATORY ANALYSIS PROGRAM

The soil samples collected during this investigation were submitted to Accutect Laboratories and McCampbell Analytical, Inc. The soil samples collected during boring operations were analyzed for the following chemical constituents, according to the indicated methods (see Appendix C):

Matrix	Test
Solid	Hold
	VOCs: EPA 8260B

7.1 Summary of Analytical Results

7.1.1 Soil Analytical Results

The laboratory analytical results indicate that PCE was detected at concentration levels of 77 ug/kg (at boring location S4), 180 ug/kg (at boring location S5), 440 ug/kg (at boring location S6), 1300 ug/kg (at boring location S7 feet), 1500 ug/kg (at boring location S8), 490 ug/kg (at boring location S9), 46 ug/kg (at boring location S10) at the location of the drycleaner chemical waste storage area.

PCE was detected at concentration levels of 12 ug/kg (at boring location S11), 14 ug/kg (at boring location S12), 43 ug/kg (at boring location S13), 21 ug/kg (at boring location S14), 25 ug/kg (at boring location S15), 23 ug/kg (at boring location S16) and 44 ug/kg (at boring location S17) at the location of the former gas station along the presumed lateral sewer line direction. A summary of the analytical results is presented in Table 1.

SECTION-EIGHT

8 HANDLING OF INVESTIGATION DERIVED WASTE

At the end of remedial action (RA) at the site, DDEE will arrange with Clean Harbors Environmental Services, 1021 Berryessa, San Jose (408-451-5000) for appropriate disposal of waste generated during boring construction activities. All contaminated wastes were stored in DOT- approved 55- gallon drums, and will be disposed off-site, at a permitted landfill or a permitted recycling facility (Clean Harbors Environmental Services, 1021 Berryessa, San Jose (408-451-5000)). The generator EPA ID: and the generator code assigned by Clean Harbors will be provided in the RA report. The generator profile No: will be stated in the waste material profile sheet.

SECTION-NINE

9 SUMMARY OF FINDINGS AND RECOMMENDATION

The soil samples collected during this RI boring activities at the site indicate that the soil at the site in some areas is contaminated with PCE **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as HCS on the map in figure 2., the areas where contamination is below ESLs were labeled as LCS on the map in figure 2. The highest PCE concentration levels in the soil samples is 1.5 mg/kg between 2 and 3 feet bgs at the boring location S8 (at the drycleaner chemical waste storage area).

Interpretation of Hydrogeologic Data

Based on the general lithology of the area as indicated during previous site investigation, the soil underneath the water bearing zone at the property is generally clayey with low permeability, and low to medium plasticity. It is anticipated that the permeability of the soil is low. A low permeability of the soil in addition to flat hydraulic gradient at the site suggest that, the potential for high velocity of groundwater movement is minimal.

Impact on Beneficial Use of Surface and Groundwater

Based on current and proposed use of the subject site and adjacent properties, the chemical analytical results were compared to the SF RWQCB, Region 02, Environmental Screening Levels (ESL, 2007.) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

The remedial investigation results indicate that the soil at the site in some areas is contaminated with PCE **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. At this time there is no domestic well at the site and no surface water body in the vicinity of the site.

Conclusion and Recommendations

Based on laboratory analytical results of soil samples collected from the site, and the current regulatory guidelines, and professional judgment of DDEE staff, the conclusions and recommendations below are offered:

The subsurface soil at the site consists primarily of clay and silts and is contaminated with PCE. The areas at the site where PCE concentration level is above ESLs is labeled as HCS on the map in figure 2. The areas at the site where PCE concentration level is below ESLs is labeled as LCS on the map in figure 2.

- The laboratory analytical results indicate that the concentration levels of PCE detected in boring locations S7 (1.3 mg/kg), S8 (1.5 mg/kg) and S9 (0.49 mg/kg) in soil at the site were **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as HCS in figure 2.

- The laboratory analytical results indicate that the concentration levels of PCE detected in boring locations S4 (0.077 mg/kg), S5 (0.18 mg/kg), S6 (0.44 mg/kg), S10 (0.046 mg/kg), S11 (0.012 mg/kg), S12 (0.14 mg/kg), S13 (0.043 mg/kg), S14 (0.021 mg/kg), S15 (0.025 mg/kg), S16 (0.023 mg/kg) and S17 (0.44 mg/kg) in soil at the site were **below** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as LCS in figure 2.

- The results of previous site investigation (DDEE & WIT, December 2007) indicated concentration levels of PCE as 0.28 mg/kg at 1 ft and 0.24 mg/kg at 2 ft in boring location BW1, and 2.7 mg/kg at 2 ft and 0.72 mg/kg in boring location BW2..

The chemical contamination at the site is mainly within the shallow soil. The areas within the soil with PCE contamination levels above the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils are delineated and recommended for remediation.These areas are at the chemical waste storage area, and at the former gas station area along the presumed direction of the lateral sewer line.

In order to protect human health and the environment, and to reduce carcinogenic risk for future resident at the site, DDEE staff recommends soil excavation in areas at the drycleaner chemical waste storage area, and in areas at the former gas station along the presumed direction of the lateral sewer line where . PCE concentration levels were **above** the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. These areas were labeled as HCS in figure 2. DDEE staff also recommends an in-situ soil remediation with oxygen reducing chemicals applied through horizontal borings at the areas below the drycleaner's building structure. After completion of the recommended remediation, a proposal for closure of the site may be recommended to the SF RWQCB for consideration. The proposal for closure of the site will be based on results obtained from evaluation of remediation of the site.

SECTION-TEN

10.0 LIMITATIONS

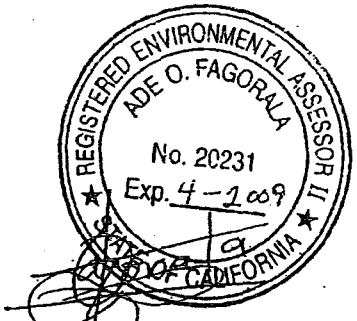
This report describes the methodology for drilling and sampling at the Kitty's Cleaners facility. The report has been reviewed by a registered civil Engineer in the State of California, his signature and license appears below.

DDEE will focus on locating the most significant sources, or potential sources for implementing remedial action. DDEE will continue a clean-up and/or monitoring program until the concentrations of the contaminant of concern has reached acceptable cleanup levels to the regulatory agencies.

DDEE's liability to Kitty's Cleaners for injury or damage to persons or property arising out of work performed for Kitty's and for which legal liability may be found to rest upon DDEE, other than for professional errors and omissions, will be limited to its general liability insurance coverage maximum limit.

For any damage on account of any error, omission, or other professional negligence, DDEE's liability will be limited to a sum not to exceed our fees.

Kitty's Cleaner shall indemnify DDEE against any claims or costs, which exceed the limitation on DDEE's liability provided in our insurance coverage, or results from acts or omissions of Kitty's Cleaners.



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SECTION-ELEVEN

11.0 REFERENCES

DDEE, December 2007, Revised Report of Soil and Groundwater Sampling at Kitty Cleaners, 910 Newbridge Street, East Palo Alto, California

Hoexter Consulting, Inc., September 27, 2006, Subsurface Investigation Report for the property located at 907 Newbridge Street, East Palo Alto, California

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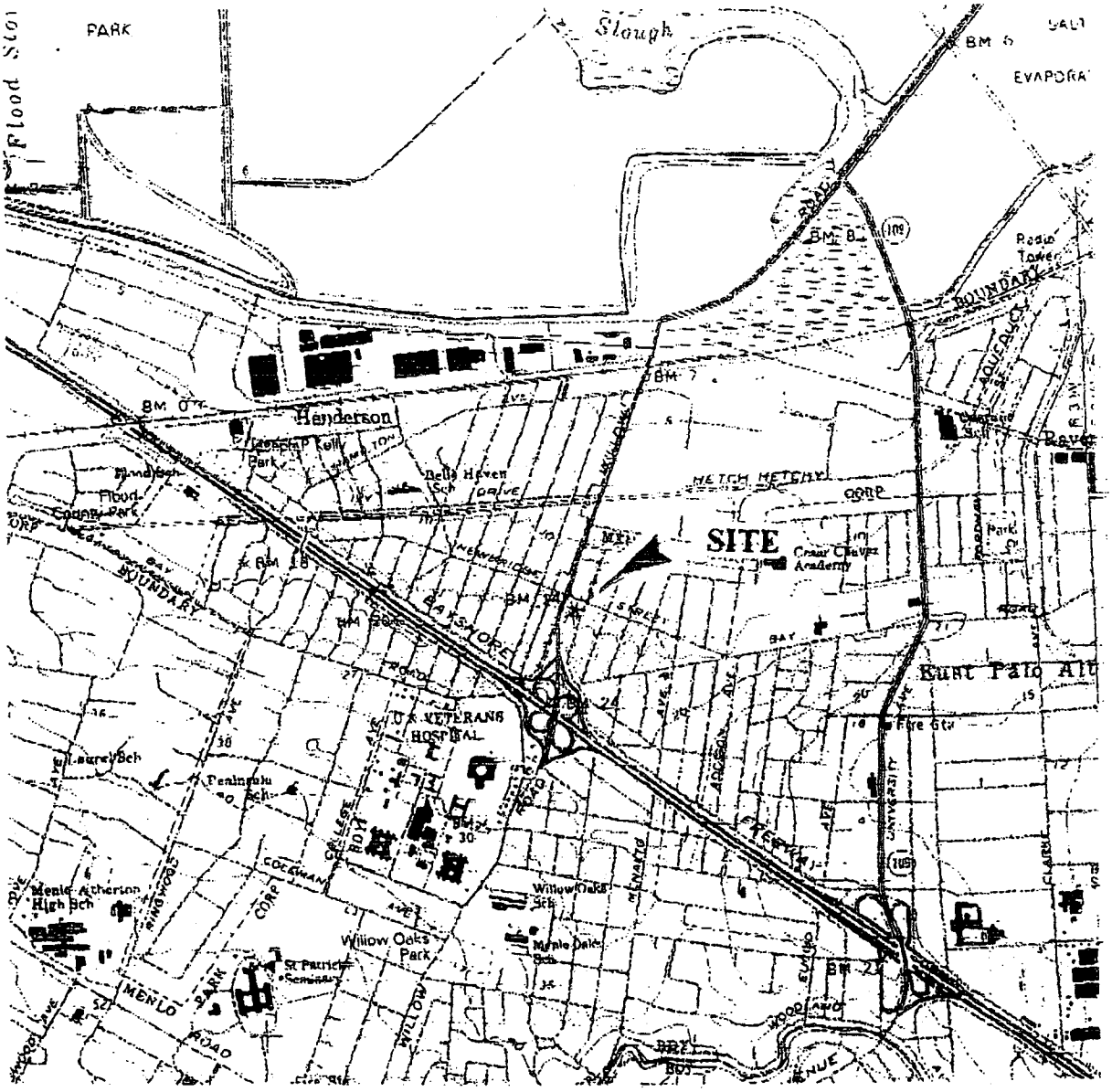
Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater – INTERIM FINAL – November 2007, CA, SF Bay RWQCB

Table - 1			
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES - RI			
REMEDIAL INVESTIGATION SOIL DATA	SAMPLE ID		Tetrachloroethene
	S4@2.5 - 3ft		77 ug/kg
	S5@2.5 - 3ft		180 ug/kg
	S6@2.5 - 3ft		440 ug/kg
	S7@2.5 - 3ft		1300 ug/kg
	S8@2.5 - 3ft		1500 ug/kg
	S9@2.5 - 3ft		490 ug/kg
	S10@2.5 - 3ft		46 ug/kg
	S11@4.5 - 5ft		ug/kg
	S12@4.5 - 5ft		14 ug/kg
	S13@4.5 - 5ft		43 ug/kg
	S14@4.5 - 5ft		21 ug/kg
	S15@4.5 - 5ft		25 ug/kg
	S16@4.5 - 5ft		23 ug/kg
	S17@4.5 - 5ft		44 ug/kg
PREVIOUS SITE INVESTIGATION-SOIL DATA	BW 1@1ft		280 ug/kg
	BW 1@2ft		240 ug/kg
	BW 2@1ft		2700 ug/kg
	BW2@5ft		720 ug/kg
All Samples were collected in June 2008			
mg/Kg = milligrams per kilogram			
ug/Kg = micrograms per kilogram			

FIGURE 1

SITE LOCATION MAP

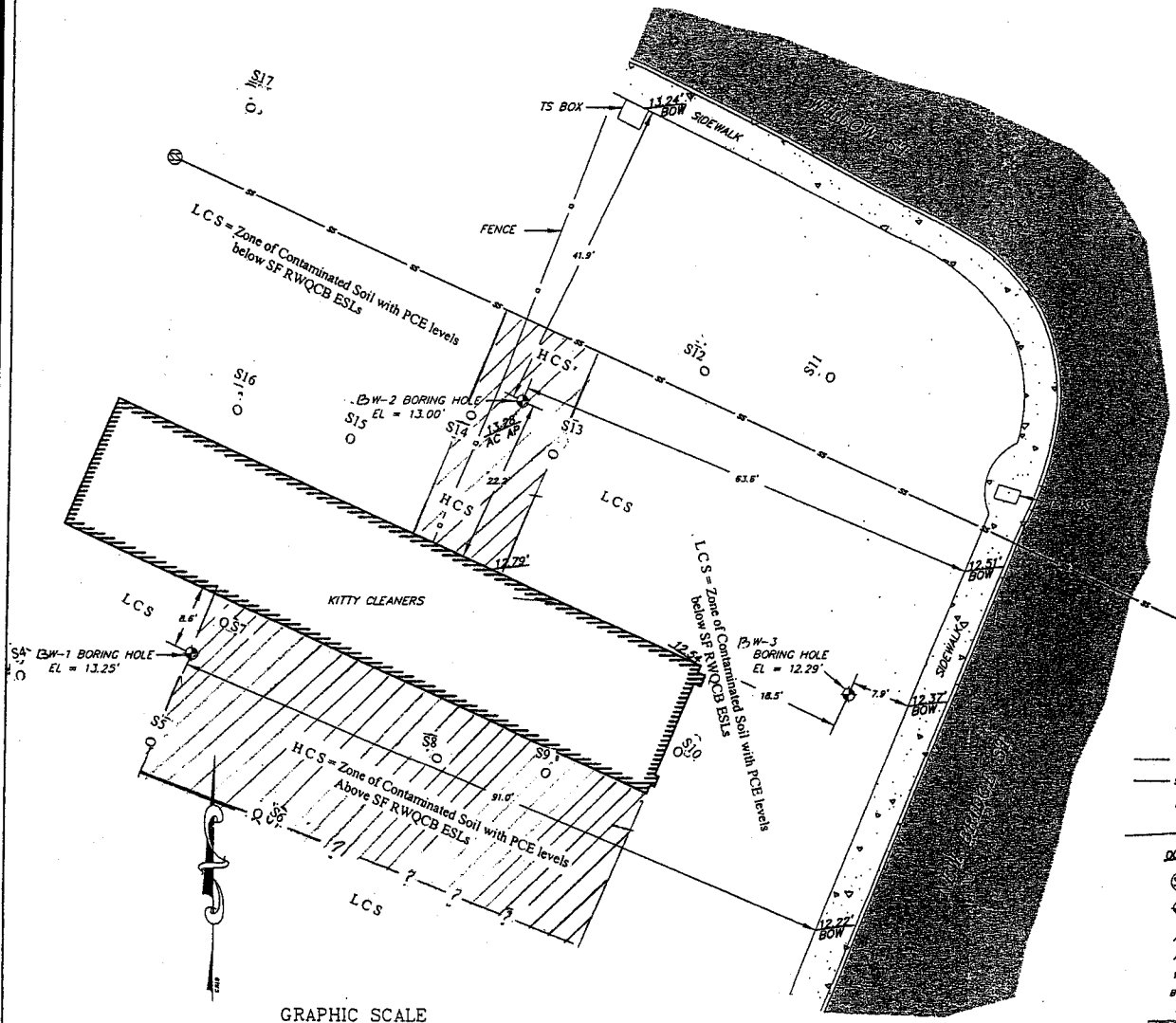


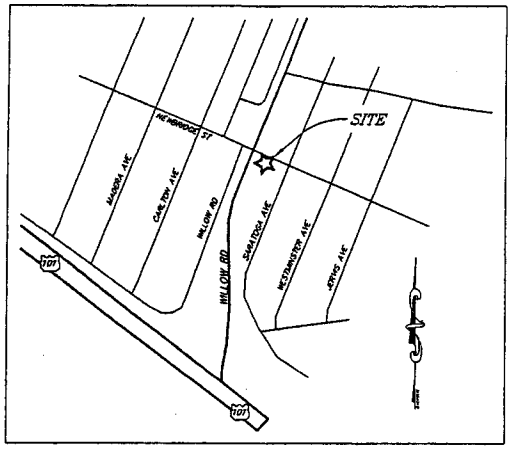
Source: USGS Palo Alto, CA. 7.5' Quadrangle, 1991

WIT	910 Newbridge Street East Palo Alto, California.	FIGURE: 1 JOB: 0060 DATE: 1/1/2007

FIGURE 2

BORING LOCATION MAP & CONTAMINATED SOIL ZONES





VICINITY MAP:
NOT TO SCALE

NOTES:

SUBJECT PARCEL OWNERS: MOHAMMED H KARWASH
MAILING ADDRESS: 5015 WEMBLEY COURT, NEWARK, CA
APN: 062-121-020

BENCHMARK:

3" BRONZE DISC SET IN CONCRETE POST .8' ABOVE GROUND IN THE EASTERN CENTERLINE ISLAND 10' EAST OF THE CURB IN THE INTERSECTION OF IVY DR AND CHILCO ST.
ELEVATION = 9.766' "BM: CITY 1"

LEGEND:

- CHAIN LINK FENCE
- SANITARY SEWER LINE
- FF FINISHED FLOOR
- EDGE OF PAVEMENT
- 00.00' SPOT ELEVATION
- SS SEWER MANHOLE
- BORING HOLE
- AP ANGLE POINT
- AC ASPHALT/CONCRETE
- WM WATER METER BOX
- BOW BACK OF SIDEWALK
- TS TRAFFIC SIGNAL VAULT
- ASPHALT
- CONCRETE

PARTIAL TOPOGRAPHIC SURVEY

910 NEWBRIDGE ST, EAST PALO ALTO, CA
SAN MATEO COUNTY

TERRA ENGINEERING CONSTRUCTION

TERRA ENGINEERING CONSTRUCTION
1318 [illegible]
[illegible]

DYUKPHICS
DRAFTING
GRAPHICS

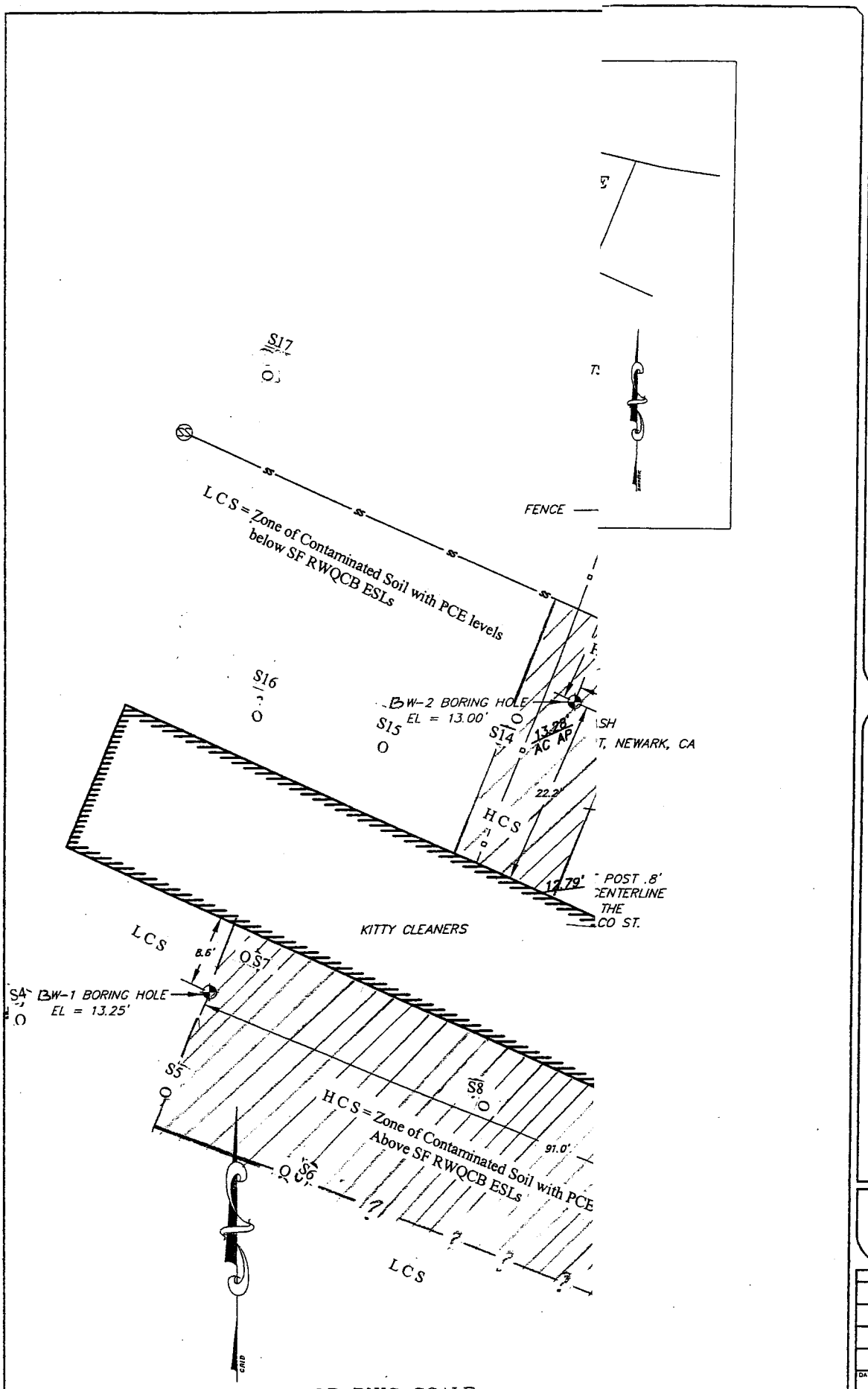
REVISIONS	BY

DATE 07\05\2007
SCALE 1"=10'
DRAWN RAM
JOB NO. NEWBRIDGE
DWG NEWBRIDGE.dwg
SHEET 1

REGISTERED PROFESSIONAL ENGINEER HASSAN M. IBRAHIM No. C 56015 CIVIL STATE OF CALIFORNIA

PREPARED AND SUBMITTED BY:

HASSAN IBRAHIM DATE



GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

PREPARED AND SUBMITTED BY:

HASSAN IBRAHIM DATE

PARTIAL TOPOGRAPHIC SURVEY

910 NEWBRIDGE ST, EAST PALO ALTO, CA
SAN MATEO COUNTY

TERRA ENGINEERING CONSTRUCTION

TERRA ENGINEERING CONSTRUCTION.
1318 Benner Avenue
FREMONT, CA 94538

DYUKPHICS
DRAFTING & GRAPHICS

REVISIONS	BY

DATE 07\05\2007
SCALE 1"=10'
DRAWN RAM
JOB NO. NEWBRIDGE
DWG NEWBRIDGE.dwg
SHEET 1

APPENDIX A

FINDINGS OF INVESTIGATION

Table - 1			
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES - RI			
REMEDIAL INVESTIGATION SOIL DATA	SAMPLE ID		Tetrachloroethene
	S4@2.5 - 3ft		77 ug/kg
	S5@2.5 - 3ft		180 ug/kg
	S6@2.5 - 3ft		440 ug/kg
	S7@2.5 - 3ft		1300 ug/kg
	S8@2.5 - 3ft		1500 ug/kg
	S9@2.5 - 3ft		490 ug/kg
	S10@2.5 - 3ft		46 ug/kg
	S11@4.5 - 5ft		ug/kg
	S12@4.5 - 5ft		14 ug/kg
	S13@4.5 - 5ft		43 ug/kg
	S14@4.5 - 5ft		21 ug/kg
	S15@4.5 - 5ft		25 ug/kg
	S16@4.5 - 5ft		23 ug/kg
	S17@4.5 - 5ft		44 ug/kg
PREVIOUS SITE INVESTIGATION-SOIL DATA	BW 1@1ft		280 ug/kg
	BW 1@2ft		240 ug/kg
	BW 2@1ft		2700 ug/kg
	BW2@5ft		720 ug/kg
All Samples were collected in June 2008			
mg/Kg = milligrams per kilogram			
ug/Kg = micrograms per kilogram			

APPENDIX B

BORING LOGS

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S4
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S4	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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Fax:(925) 458-4958

		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S5
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S5	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S6
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S6	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S7
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S7	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S8
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S8	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S9
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S9	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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Fax:(925) 458-4958

		DATE	06/08/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S10
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	9.00 a.m
LOCATION	S10	**DRILLING COMPLETED**	12:00 noon
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			3'	3 ft	CH		Black Sandy, Sitty Clay			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S11
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S11	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S12
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S12	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S13
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S13	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S14
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S14	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

D D E E
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S15
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S15	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

D D E E
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Pittsburg, CA94565
Telephone: (510) 258-5167
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		DATE	06/23/08
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S16
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10.00 a.m
LOCATION	S16	**DRILLING COMPLETED**	3:15 p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel			
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel			
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel			

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Telephone: (510) 258-5167
Fax:(925) 458-4958

DATE 6/23/08

CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	S17
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	10 a.m
LOCATION	S17	**DRILLING COMPLETED**	3:15p.m
PROJECT NUMBER	0070	**WELL DEVELOPMENT DATE**	
DRILLER	D D E E	**GROUND SURFACE ELEVATION**	
DRILLING METHOD	Auger	**TOP OF CASING ELEVATION**	
BORING DIAMETER	8"	**SCREENED INTERVAL**	
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM
			1'	1 ft	CH		Black Sandy, Sitty Clay with Gravel		
			2'	2 ft	CH		Black Sandy, Sitty Clay with Gravel		
			5'	5 ft	CH		Black Sandy, Sitty Clay with Gravel		

APPENDIX – C
LABORATORY ANALYTICAL RESULTS AND CHAIN OF CUSTODY RECORDS

Northern California
ACCUTEST Laboratories

CHAIN OF CUSTODY

3334 Victor Court, Santa Clara, CA 95054
(408) 588-0200 FAX: (408) 588-0201

2285 Willow Ave, Pittsburg, CA 94565 925-458-4958

Waste Industries Technologies

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C

Client / Reporting Information

Company Name: ~~D.DEE~~ WIT / ~~KAR CONTECH~~
Address: P.O. Box 72305
City: OAKLAND State: CA Zip: 94612
Project Contact: David KITTY CLEANER
Phone #: 510-258-5167
Samplers's Name: David / Hassan

Project Information

Project Name: KITTY CLEANER
Street: 910 NEWBRIDGE ST.
City: EAST PALO ALTO State: CA
Project #: SLO
EMAIL: David@ddenvironmentalengineering.com
Client Purchase Order #

Requested Analysis

8260 Full List + PCE
8260Petro (includes BTEX / MBE / TBA / EtOE / DIPE / TAME / 1,2-DCA / EDB) ☐ TPH as Gas ☐
8270 ☐ PAHs only ☐ 625 ☐ +TICs ☐
TPH-Extractable - Diesel - Motor Oil - Other ☐ With Silica Gel Cleanup ☐
METALS: CAM-17☐ LUFT-5☐ RCRA-8☐ PPM-13☐
Pesticides-8081 ☐ PCBs-8082 ☐ 608 ☐
BTEX-MBE-TPH as Gasoline by GC/FID-FID ☐

Matrix Codes

WW- Water
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

LAB USE ONLY

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	None	MeOH	NaHSO4	Encore
	S1 4.5-5ft 001	6/21/08	11pm	David	Soil	1	✓							
	S2 4.5-5ft 002	"	11:10	"	"	1	✓							
	S3 4.5-5ft 003	"	11:20	"	"	1	✓							
	S4 4.5-5ft 004	"	11:45	"	"	1	✓							
	S5 4.5-5ft 005	"	12:00	Hassan	"	1	✓							
	S6 4.5-5ft 006	"	12:15	Hassan	"	1	✓							
	S7 4.5-5ft 007	"	12:30	"	"	1	✓							
	Rec'd 2x6 Silver Tube each													
	w/22.3° Temp													

Turnaround Time (Business days)

- ☐ Std. 15 Business Days
- ☐ 10 Day (Workload dependent)
- ☑ 5 Day (Workload dependent)
- ☐ 3 Day (125% markup)
- ☐ 2 Day (150% markup)
- ☐ 1 Day (200% markup)
- ☐ Same Day (300% markup)

Approved By:/ Date:

Emergency T/A data available VIA Labiink

Data Deliverable Information

- ☐ Commercial "A" ☐
- ☒ Commercial "B" ☐
- ☐ ☐
- ☑ EDF for Geotracker ☐ EDD Format
- Provide EDF Global ID: SL06
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time: 6/23/08 1500	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Appropriate Bottle / Pres. Y / N; Labels match COC? Y / N	Headspace Y / N; Separate Receipt Log Y / N; On Ice Y / N; Cooler Temp. ____ °C

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-002 **Sample ID: S12-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:10**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-002 **Sample ID: S12-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:10**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	14		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89.2	60 - 130
Dibromofluoromethane	98.0	60 - 130
Toluene-d8	91.2	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
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Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-003 **Sample ID: S13-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:20**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
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Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-003 **Sample ID: S13-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:20**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	**43**		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.5	60 - 130
Dibromofluoromethane	99.4	60 - 130
Toluene-d8	90.6	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-004 **Sample ID: S14-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:45**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
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ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-004 **Sample ID: S14-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 11:45**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	21		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	91.8	60 - 130
Dibromofluoromethane	100	60 - 130
Toluene-d8	91.6	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-005 **Sample ID: S15-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:00**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
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Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-005 **Sample ID: S15-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:00**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	25		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.4	60 - 130
Dibromofluoromethane	99.2	60 - 130
Toluene-d8	92.4	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-006 **Sample ID: S16-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:15**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-006 **Sample ID: S16-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:15**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	23		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	91.7	60 - 130
Dibromofluoromethane	101	60 - 130
Toluene-d8	91.0	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST
LABORATORIES

Northern California   3334 Victor Court Santa Clara, CA 95054   Phone (408) 588-0200   Fax (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab #: C1366-007   Sample ID: S17-4.5-5Ft   Matrix: Solid   Sample Date: 06/21/2008 12:30

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	06/25/2008	VO6
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	06/25/2008	VO6
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

ACCUTEST Laboratories

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Project Name: Kitty Cleaner
Project Location: 910 Newbridge St. East Palo Alto, CA
GlobalID: SL0608148581

Certificate of Analysis - Data Report

Samples Received: 06/23/2008
Sample Collected by: Client

Lab # : C1366-007 **Sample ID: S17-4.5-5Ft** **Matrix: Solid** **Sample Date: 06/21/2008 12:30**

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrachloroethene	44		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	06/25/2008	VO6
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	06/25/2008	VO6
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	06/25/2008	VO6

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89.6	60 - 130
Dibromofluoromethane	98.6	60 - 130
Toluene-d8	92.3	60 - 130

Analyzed by: EricKum
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

DDEE 2285 Willow Ave. Pittsburg, CA 94565	Client Project ID: 910 Newbridge	Date Sampled: 06/06/08
		Date Received: 06/09/08
	Client Contact: David Fagorala	Date Reported: 06/12/08
	Client P.O.:	Date Completed: 06/12/08

WorkOrder: 0806222

June 12, 2008

Dear David:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **910 Newbridge,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

CHAIN OF CUSTODY RECORD

BLAINE TECH SERVICES, INC.
1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
Website: www.blainetech.com Email: sampling@blainetech.com
Telephone: (877) 254-9052 Fax: (925) 252-9269

TURN AROUND TIME: RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To:	Bill To:
Company:	
Tele: ( )	E-Mail:
Project #:	Fax: ( )
Project Location:	Project Name:
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other

Analysis Request

BTEX & TPH as Gas (EPA 602 / 8021 + 8015 / MTBE)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F)	Total Petroleum Hydrocarbons (418.1)	EPA 552.2 / 601 / 8021 (HVOCs)	MTBE (MTBE ONLY) (EPA 602 / 8021)	EPA 608 / 8081 (OC Pesticides)	EPA 625 / 8270 (PCBs ONLY) Aroclors Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 625.1 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (6010 / 7000 / 7470 / 7471)	LUFT 5 Metals (6010 / 7000 / 7470 / 7471)	Lead (7420 / 7421 / 239.2 / 6010 / 6020)	Other	Comments
																	Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/T
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

COMMENTS:

VOAS O&G METALS OTHER
PRESERVATION pH<2

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0806222 **ClientCode: DDEE**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☐ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565
(510) 258-5167 FAX (925) 458-4958

Email: wasteit@aol.com
cc:
PO:
ProjectNo: 910 Newbridge

Bill to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565

Requested TAT: 5 days

Date Received: **06/09/2008**
Date Printed: **06/09/2008**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
0806222-001	S4	Soil	6/6/2008 12:30	☐	A											
0806222-002	S5	Soil	6/6/2008	☐	A											
0806222-003	S6	Soil	6/6/2008	☐	A											
0806222-004	S7	Soil	6/6/2008	☐	A											
0806222-005	S8	Soil	6/6/2008	☐	A											
0806222-006	S9	Soil	6/6/2008	☐	A											
0806222-007	S10	Soil	6/6/2008	☐	A											

Test Legend:

1 8010BMS_S	2	3	4	5
6	7	8	9	10
11	12			

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **DDEE**
Date and Time Received: **6/9/08 5:19:14 PM**

Project Name: **910 Newbridge**
Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0806222** Matrix Soil
Carrier: Delivered to Envirotech; Picked Up By: R.P.

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 10.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

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"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

DDEE	Client Project ID: 910 Newbridge	Date Sampled: 06/06/08
		Date Received: 06/09/08
2285 Willow Ave.	Client Contact: David Fagorala	Date Extracted: 06/09/08
Pittsburg, CA 94565	Client P.O.:	Date Analyzed 06/11/08

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0806222

Lab ID	0806222-001A	0806222-002A	0806222-003A	0806222-004A	Reporting Limit for DF =1	
Client ID	S4	S5	S6	S7		
Matrix	S	S	S	S	S	W
DF	1	1	4	10		
Compound	**Concentration**				mg/kg	µg/L
Bromodichloromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Bromoform	ND	ND	ND<0.020	ND<0.050	0.005	NA
Bromomethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Carbon Tetrachloride	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chloroform	ND	ND	ND<0.020	ND<0.050	0.005	NA
Chloromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Dibromochloromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,2-Dibromoethane (EDB)	ND	ND	ND<0.016	ND<0.040	0.004	NA
1,2-Dichlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,3-Dichlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,4-Dichlorobenzene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Dichlorodifluoromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1-Dichloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND<0.016	ND<0.040	0.004	NA
1,1-Dichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
cis-1,2-Dichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
trans-1,2-Dichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,2-Dichloropropane	ND	ND	ND<0.020	ND<0.050	0.005	NA
cis-1,3-Dichloropropene	ND	ND	ND<0.020	ND<0.050	0.005	NA
trans-1,3-Dichloropropene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Freon 113	ND	ND	ND<0.40	ND<1.0	0.1	NA
Methylene chloride	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1,1,2-Tetrachloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Tetrachloroethene	0.077	0.18	0.44	1.3	0.005	NA
1,1,1-Trichloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
1,1,2-Trichloroethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Trichloroethene	ND	ND	ND<0.020	ND<0.050	0.005	NA
Trichlorofluoromethane	ND	ND	ND<0.020	ND<0.050	0.005	NA
Vinyl Chloride	ND	ND	ND<0.020	ND<0.050	0.005	NA
Surrogate Recoveries (%)						
%SS1:	96	95	99	101		
%SS2:	106	108	86	84		
%SS3:	106	107	104	106		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

DDEE	Client Project ID: 910 Newbridge	Date Sampled: 06/06/08
		Date Received: 06/09/08
2285 Willow Ave.	Client Contact: David Fagorala	Date Extracted: 06/09/08
Pittsburg, CA 94565	Client P.O.:	Date Analyzed 06/11/08

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0806222

Lab ID	0806222-005A	0806222-006A	0806222-007A		Reporting Limit for DF =1	
Client ID	S8	S9	S10			
Matrix	S	S	S		S	W
DF	10	5	1			
Compound	**Concentration**				mg/kg	µg/L
Bromodichloromethane	ND<0.050	ND<0.025	ND		0.005	NA
Bromoform	ND<0.050	ND<0.025	ND		0.005	NA
Bromomethane	ND<0.050	ND<0.025	ND		0.005	NA
Carbon Tetrachloride	ND<0.050	ND<0.025	ND		0.005	NA
Chlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
Chloroethane	ND<0.050	ND<0.025	ND		0.005	NA
Chloroform	ND<0.050	ND<0.025	ND		0.005	NA
Chloromethane	ND<0.050	ND<0.025	ND		0.005	NA
Dibromochloromethane	ND<0.050	ND<0.025	ND		0.005	NA
1,2-Dibromoethane (EDB)	ND<0.040	ND<0.020	ND		0.004	NA
1,2-Dichlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
1,3-Dichlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
1,4-Dichlorobenzene	ND<0.050	ND<0.025	ND		0.005	NA
Dichlorodifluoromethane	ND<0.050	ND<0.025	ND		0.005	NA
1,1-Dichloroethane	ND<0.050	ND<0.025	ND		0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND<0.040	ND<0.020	ND		0.004	NA
1,1-Dichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
cis-1,2-Dichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
trans-1,2-Dichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
1,2-Dichloropropane	ND<0.050	ND<0.025	ND		0.005	NA
cis-1,3-Dichloropropene	ND<0.050	ND<0.025	ND		0.005	NA
trans-1,3-Dichloropropene	ND<0.050	ND<0.025	ND		0.005	NA
Freon 113	ND<1.0	ND<0.50	ND		0.1	NA
Methylene chloride	ND<0.050	ND<0.025	ND		0.005	NA
1,1,1,2-Tetrachloroethane	ND<0.050	ND<0.025	ND		0.005	NA
1,1,2,2-Tetrachloroethane	ND<0.050	ND<0.025	ND		0.005	NA
Tetrachloroethene	1.5	0.49	0.046		0.005	NA
1,1,1-Trichloroethane	ND<0.050	ND<0.025	ND		0.005	NA
1,1,2-Trichloroethane	ND<0.050	ND<0.025	ND		0.005	NA
Trichloroethene	ND<0.050	ND<0.025	ND		0.005	NA
Trichlorofluoromethane	ND<0.050	ND<0.025	ND		0.005	NA
Vinyl Chloride	ND<0.050	ND<0.025	ND		0.005	NA
Surrogate Recoveries (%)						
%SS1:	99	100	98			
%SS2:	106	108	106			
%SS3:	104	104	104			
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0806222

EPA Method SW8260B	Extraction SW5030B			BatchID: 36184				Spiked Sample ID: 0806311-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chlorobenzene	ND	0.050	92.9	92.6	0.319	98.6	97.6	1.09	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	98.9	99.4	0.476	99.6	101	1.69	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	99.2	98.8	0.414	106	107	1.53	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	101	100	0.983	108	107	0.393	60 - 130	30	60 - 130	30
%SS1:	98	0.12	99	99	0	96	98	1.62	70 - 130	30	70 - 130	30
%SS2:	96	0.12	97	97	0	96	96	0	70 - 130	30	70 - 130	30
%SS3:	115	0.12	97	98	0.235	112	115	2.83	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36184 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0806222-001A	06/06/08 12:30 PM	06/09/08	06/11/08 1:42 AM	0806222-002A	06/06/08	06/09/08	06/11/08 2:24 AM
0806222-003A	06/06/08	06/09/08	06/11/08 2:03 PM	0806222-004A	06/06/08	06/09/08	06/11/08 2:46 PM
0806222-005A	06/06/08	06/09/08	06/11/08 3:28 PM	0806222-006A	06/06/08	06/09/08	06/11/08 4:11 PM
0806222-007A	06/06/08	06/09/08	06/11/08 4:54 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX D

PHOTOGRAPH OF CYLINDRICAL METAL CONTAINERS
USED FOR DISPOSAL OF CHEMICAL WASTE FLUID

SAFETY WARNING
10/01/2007 22:24

APPENDIX E

ENVIRONMENTAL SCREENING LEVELS

Table A-1. [1]Shallow Soil Screening Levels (≤3m bgs)
[2]Residential Land Use
(potentially contaminated groundwater IS a current or potential drinking water resource)

	[2]Residential Land Use (mg/kg)					
		Gross Contamination Ceiling Value (Odors, etc.)	Urban Area Ecotoxicity Criteria	Human Health		Groundwater Protection (Soil Leaching)
				Direct Exposure	Vapor Intrusion into Buildings	Drinking Water Resource
Chemical	Final ESL	Table H-2		Table K-1		Table G
Phenol	7.6E-02	5.0E+02	4.0E+01	3.7E+03		7.6E-02
Polychlorinated biphenyls (PCBs)	8.9E-02	5.0E+02	-	8.9E-02		6.3E+00
Pyrene	5.0E+02	5.0E+02	-	7.3E+02	(Use soil gas)	1.2E+03
Selenium	1.0E+01	1.0E+03	1.0E+01	7.6E+01		
Silver	2.0E+01	1.0E+03	2.0E+01	7.6E+01		
Styrene	1.5E+00	5.0E+02	-	4.8E+02	(Use soil gas)	1.5E+00
tert-Butyl alcohol	1.0E-06	1.0E+02	-	3.2E+05	(Use soil gas)	
1,1,1,2-Tetrachloroethane	2.4E-02	1.0E+02	-	2.0E+00	(Use soil gas)	2.4E-02
1,1,2,2-Tetrachloroethane	1.8E-02	5.0E+02	-	2.6E-01	(Use soil gas)	1.8E-02
Tetrachloroethene	3.4E-01	2.3E+02	-	3.4E-01	(Use soil gas)	7.0E-01
Thallium	1.2E+00	1.0E+03	-	1.2E+00		
Toluene	2.9E+00	5.0E+02	-	6.3E+01	(Use soil gas)	2.9E+00
Toxaphene	4.6E-01	5.0E+02	-	4.6E-01		6.4E+00
TPH (gasolines)	8.3E+01	1.0E+02	-	1.1E+02	(Use soil gas)	8.3E+01
TPH (middle distillates)	8.3E+01	1.0E+02	-	1.1E+02	(Use soil gas)	8.3E+01
TPH (residual fuels)	4.1E+02	5.0E+02	-	4.1E+02		
1,2,4-Trichlorobenzene	1.5E+00	5.0E+02	3.0E+01	7.8E+00	(Use soil gas)	1.5E+00
1,1,1-Trichloroethane	2.5E+01	5.0E+02	-	2.7E+02	(Use soil gas)	2.5E+01
1,1,2-Trichloroethane	7.0E-02	1.0E+02	-	4.9E-01	(Use soil gas)	7.0E-02
Trichloroethene	4.6E-01	5.0E+02	6.0E+01	1.9E+00	(Use soil gas)	4.6E-01
2,4,5-Trichlorophenol	3.2E+00	1.0E+02	1.0E+01	3.7E+02	(Use soil gas)	3.2E+00
2,4,6-Trichlorophenol	2.3E-01	5.0E+02	1.0E+01	1.2E+00		2.3E-01
Vanadium	1.5E+01	1.0E+03	2.0E+02	1.5E+01		
Vinyl chloride	2.1E-02	5.0E+02	6.0E+01	2.1E-02	(Use soil gas)	8.5E-02
Xylenes	2.3E+00	4.2E+02	-	3.1E+01	(Use soil gas)	2.3E+00
Zinc	6.0E+02	1.0E+03	6.0E+02	4.6E+03		

Table C-1. [1]Deep Soil Screening Levels (>3m bgs)
[2]Residential Land Use
(potentially contaminated groundwater IS a current or potential drinking water resource)

	[2]Residential Land Use (mg/kg)				
		Gross Contamination Ceiling Value (Odors, etc.)	Human Health		Groundwater Protection (Soil Leaching)
			Direct Exposure	Vapor Intrusion Into Buildings	Drinking Water Resource
Chemical	Final ESL	Table H-3	Table K-3		Table G
Phenanthrene	4.9E+02	1.0E+03	1.2E+04	(Use soil gas)	4.9E+02
Phenol	7.6E-02	1.0E+03	1.2E+05		7.6E-02
Polychlorinated biphenyls (PCBs)	3.4E+00	1.0E+03	3.4E+00		6.3E+00
Pyrene	1.0E+03	1.0E+03	2.3E+04	(Use soil gas)	1.2E+03
Selenium	2.5E+03	2.5E+03	3.6E+03		
Silver	2.5E+03	2.5E+03	3.6E+03		
Styrene	1.5E+00	1.0E+03	1.5E+03	(Use soil gas)	1.5E+00
tert-Butyl alcohol		5.0E+02	3.2E+05	(Use soil gas)	
1,1,1,2-Tetrachloroethane	2.4E-02	5.0E+02	1.7E+02	(Use soil gas)	2.4E-02
1,1,2,2-Tetrachloroethane	1.8E-02	1.0E+03	2.2E+01	(Use soil gas)	1.8E-02
Tetrachloroethene	7.0E-01	2.3E+02	2.2E+01	(Use soil gas)	7.0E-01
Thallium	5.7E+01	2.5E+03	5.7E+01		
Toluene	2.9E+00	6.5E+02	6.5E+02	(Use soil gas)	2.9E+00
Toxaphene	6.4E+00	1.0E+03	2.2E+01		6.4E+00
TPH (gasolines)	8.3E+01	5.0E+03	4.2E+03	(Use soil gas)	8.3E+01
TPH (middle distillates)	8.3E+01	5.0E+03	1.5E+02	(Use soil gas)	8.3E+01
TPH (residual fuels)	5.0E+03	5.0E+03	1.5E+04		
1,2,4-Trichlorobenzene	1.5E+00	1.0E+03	3.1E+02	(Use soil gas)	1.5E+00
1,1,1-Trichloroethane	2.5E+01	1.0E+03	1.2E+03	(Use soil gas)	2.5E+01
1,1,2-Trichloroethane	7.0E-02	5.0E+02	4.3E+01	(Use soil gas)	7.0E-02
Trichloroethene	4.6E-01	1.0E+03	1.2E+02	(Use soil gas)	4.6E-01
2,4,5-Trichlorophenol	3.2E+00	5.0E+02	1.4E+04	(Use soil gas)	3.2E+00
2,4,6-Trichlorophenol	2.3E-01	1.0E+03	4.1E+01		2.3E-01
Vanadium	7.1E+02	2.5E+03	7.1E+02		
Vinyl chloride	8.5E-02	1.0E+03	1.9E+00	(Use soil gas)	8.5E-02
Xylenes	2.3E+00	4.2E+02	4.2E+02	(Use soil gas)	2.3E+00
Zinc	2.5E+03	2.5E+03	2.1E+05		

Notes:

1. Deep soils defined as soils situated >3 meters below ground surface (or shallower with institutional controls).

2. "Residential Land Use" screening levels generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.).

Final Environmental Screening Level is lowest of ceiling values (nuisance concerns etc.), direct-exposure, indoor-air impact, and leaching screening levels.

Soil data should be reported on dry-weight basis (see Section 6.2).

TPH -Total Petroleum Hydrocarbons. See text for discussion of different TPH categories.

DDEE

DAVE DRILLING & ENVIRONMENTAL ENGINEERING, INC.

2285 WILLOW AVENUE, PITTSBURG, CA 94565: P.O. Box 72305, Oakland, CA 94612. Ph: (510) 258-5167; Fax: (925) 458-4958: website: ddenvironmentalengineeringca.com

JULY 08, 2009

Mr. Mark Johnson
Engineering Geologist
SF Bay Regional Water Quality Control Board
1414 Clay Street, Oakland, CA 94612
Phone: (510)-622-2493

CALIFORNIA REGIONAL WATER
JUL 09 2009
QUALITY CONTROL BOARD

SUBJECT: REQUEST FOR A CLOSURE LETTER: FOR THE KITTY'S CLEANER, LOCATED AT 910 & 904 NEWBRIDGE STREET, EAST PALO ALTO, CALIFORNIA

Dear Sir:

DDEE on behalf of Mr. and Mrs. Karwash, hereby request a no further action and a closure letter for the Kitty's Cleaner located 910 and 904 Newbridge Street, East Palo Alto, California based on findings and results of the in-situ soil treatment program at the subject property. A copy of a closure report describing the soil treatment program, and the post remediation laboratory analytical results is submitted with this letter. The concentration levels of chemicals in soil have been treated to levels below SF Bay RWQCB ESLs. Thank you for your cooperation on this project.

If you have any questions regarding this letter, please call Adedola Fagorala, Assistant Environmental Engineer or David Fagorala our registered environmental scientist at (510) 258-5167.

Thank you,

Omo Fagbohungbe
C E O
DDEE

No Further Action/Closure Request for

the

Kitty's Cleaners
910 Newbridge Street
East Palo Alto, California

CALIFORNIA REGIONAL WATER
JUL 09 2009
QUALITY CONTROL BOARD

Prepared for

Mr. & Mrs. Karwash
5015 Wembley Court
Newark, California 94560

Prepared by DDEE/WIT, Inc.
P.O. Box 72305, Oakland, California 94612
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June, 2009
DDEE Project #0070

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EXECUTIVE SUMMARY EX-1

This report documents the contaminated soil treatment program and laboratory analysis results at the Kitty's Cleaner and the Former Exxon Mobil Station located at 910 and 904 Newbridge Street, East Palo Alto, California (Site). This sampling was conducted by DDEE on behalf of Mr. and Mrs Karwash.

This Soil Treatment involved 3 major tasks in order to accomplish the project objective. The objective of the soil treatment is to reduce the concentration of chemical of concerns (PCE) in shallow soil at a significantly fast pace. The chemicals of concerns, specifically PCE and its degraded products in shallow soil approximately 1 to and 5 feet below ground surface (bgs) are products of drycleaning reagents used at the site and were detected in shallow depth during site investigations at the following locations: the waste chemical storage area, underneath building structures and the lateral sewer line located at the Former Mobil Service Station.

The tasks are as follow:

- **Drilling 80 soil borings** and installing 80 injection elements.
  20 vertical injection elements were each installed to 5 feet below ground surface (bgs) at the location of the former gas station along the direction of the lateral sewer line. 40 vertical injection elements were each installed to 3 feet below ground surface (bgs) at the location of the former drycleaner's waste chemical storage area. 10 horizontal borings were constructed and injection elements installed around the building structure targeting from 1 to 5 feet bgs. Another 10 vertical borings were constructed and injection elements installed inside the building structure targeting from 1 to 5 feet. The 1 to 5 feet shallow depths were targeted because PCE were detected in shallow soil up to 5 feet bgs, above its Environmental Screening Levels during the previous investigations at the site.

- **Injection of chemicals through 80 injection elements.** The injection points were located at 3 feet intervals apart over the entire contaminated zones.

- **Collection of soil samples after treatment from 1 to 5 feet bgs, at the mid point between two injection elements, and the treated soil samples were submitted for laboratory analysis**.

The laboratory analytical results obtained from testing soil after treatment indicated that PCE was drastically reduced below its ESLs at the site (see Table 1 & Figure 4).

INTRODUCTION

DDEE was retained by Mr. and Mrs. Karwash to implement soil treatment for the contaminated soil at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The contaminated soil was treated to below PCE environmental screening levels (ESLs) in soils at shallow depths. The site remediation was requested by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

The lead agency caseworker on this soil cleanup project is Mr. Mark Johnson, an Engineering Geologist of the SF Bay Regional Water Quality Control Board. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), San Mateo County Health Department, Department of Toxic Substances Control (DTSC), and the City of East Palo Alto.

This is the history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the present property owner. The list of owners of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Mobile Gas Service Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road, was sold back to Mr. Conley. In 1986, Mr. Conley sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. Before 1980, the dry cleaning facility was owned and operated by Richard Shandy. According to the Gamblins, the Kitty's Cleaners facility was only used for collection of materials for dry cleaning since 1990. Mr. M. Karwash believes that, Caltrans, Mr. Conley, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations have contaminated the soil at the subject properties.

There are no records indicating releases at the Kitty's Cleaners facility. However the revised report of soil and groundwater sampling prepared by DDEE/WIT Inc. (December 2007), for the property located at 910 Newbridge Street, the Kitty's Cleaners and the former Colnley's Mobil Gas Station properties, indicated that TPH as diesel was not detected at the site, TPH as motor oil was detected in shallow and deep soils below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and dry cleaning fluid PCE were detected in shallow soils above the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and the highest concentration levels of PCE (6.4 ug/L) detected in groundwater was above its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's Mobjl gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc.

September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United Soil Engineering (USE, 1994) indicated that, the former Conley's Mobil Service Gas Station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

PROJECT OBJECTIVE

The objective of this soil treatment program is to reduce the concentrations of chemical of concerns (PCE) at a significantly fast pace, and to achieve the remedial goal by treating soil contaminated with dry cleaning fluid (PCE) detected in shallow depth to below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), for residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 13 feet MSL. as measured during a recent survey at the site. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006).

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area as shown from previous site investigation is relatively uniform as indicated from the subsurface drilling. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

DRILLING

The auger drill method was utilized to drill subsurface borings and a slide hammer attached to a split soil core sampler with steel liner was used at the site for collection of soil samples. A C57, State of California licensed driller was not subcontracted to perform the drilling work because the subsurface drilling did not extend to groundwater level. The soil samples were collected using 2-inch diameter steel split spoon.

SECTION-ONE

1.0 INTRODUCTION

DDEE was retained by Mr. and Mrs. Karwash to implement soil treatment for the contaminated soil at the Kitty's Cleaners facility located at 910 Newbridge Street, East Palo Alto, California. The contaminated soil was treated to below the COCs environmental screening levels (ESLs) in soils at shallow depths. Site investigation was requested by the San Mateo County Health Department Groundwater Protection Program (GPP, letter dated October 4, 2006).

The lead agency caseworker on this soil cleanup project is Mr. Mark Johnson, an Engineering Geologist of the SF Bay Regional Water Quality Control Board. Other agencies which either have authority over, and/or specific interest in investigation and remediation work at the property are the California Environmental Protection Agency (Cal-EPA), San Mateo County Health Department, Department of Toxic Substances Control (DTSC), and the City of East Palo Alto.

A Workplan that describes the scope of work for soil treatment, work schedule, sampling procedure, laboratory analysis program, and the field procedures for this project was submitted for approval prior to conducting field work.

1.1 BACKGROUND

The history of the ownership of the dry cleaners property and adjacent former gas station property as reported by the Mr. M. Karwash, the current owner of the subject properties is as follows: Between 1980 and 1983, Caltrans purchased the former Conley's Mobile Gas Service Station, located adjacent to the Kitty's Cleaners property in order to widen Willow Road. In 1986, Willow Road was widened. Caltrans removed two underground storage tanks at the location of the current highway. The remaining land from the former gas station that was not utilized while widening Willow Road, was sold back to Mr. Conley. In 1986, Mr. Conley sold the remaining land from the former gas station to Mr. M. Karwash. In 1990, Mr. M. Karwash also purchased the Kitty's Cleaners building, located at 910 Newbridge Street, in East Palo Alto, from Richard Shandy. The Kitty's Cleaners has been operated by Lee and Margaret Gamblin since 1990 to the present. Before 1980, the dry cleaning facility was owned and operated by Richard Shandy. According to the Gamblins, the Kitty's Cleaners facility was only used for collections of materials for dry cleaning since 1990. Mr. M. Karwash believes that, Caltrans, Mr. Conley, Mr. Richard Shandy and Lee and Margaret Gamblin should be involved in testing and cleaning soil and groundwater at the site because their dry cleaning business and gas station operations have contaminated the soil the subject site.

There are no records indicating releases at the Kitty's Cleaners facility. However the revised report of soil and groundwater sampling prepared by DDEE/WIT Inc. (December 2007), for the property located at 910 Newbridge Street, the Kitty's Cleaners and the former Colnley's Mobile Gas Station properties, indicated

that TPH as diesel was not detected at the site, TPH as motor oil was detected in shallow and deep soils below the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and dry cleaning fluid PCE were detected in shallow soils above the respective SF Bay RWQCB Environmental Screening Levels (ESLs), and the highest concentration levels of PCE (6.4 ug/L) detected in groundwater was above its CDHS and maximum contaminant level (MCL) at less than one order of magnitude of its CDHS, and maximum contaminant level (MCL).

Subsurface investigation report prepared by Hoexter Consulting, Inc. (September 27, 2006), for the property located at 907 Newbridge Street, opposite to the Kitty's Cleaners and the former Colnley's gas station properties, indicated that both diesel and dry cleaning fluid PCE were detected at very low concentration levels (below MCLs) in groundwater. It was suggested in the report (Hoexter Consulting, Inc. September 27, 2006) that the chemicals detected have a possible upgradient sources. A report by United Soil Engineering (USE, 1994) indicated that, the former Conley's Mobile Service Gas Station was located at 904 Newbridge Street, at the southwest corner with the Willow Street.

SECTION-TWO

2.0 PROJECT OBJECTIVE

The objective of this soil treatment program is to reduce the concentrations of chemical of concerns (PCE) at a significantly fast pace, and to achieve the remedial goal by treating soil contaminated with dry cleaning fluid (PCE) detected in shallow depth to below the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

2.1 SITE LOCATION

The subject site is located at 910 Newbridge Street, and 904 Newbridge Street, East Palo Alto, California in the industrial, partly residential and commercial area of the city of East Palo Alto, California. The subject site is the Kitty's Cleaners and the former Conely's Mobile Gas Service Station facility. The site is on the northwest side of Newbridge Street between Saratoga Avenue and Willow Road. The site has been used for drycleaning and gas station facilities for many years.

2.2 LOCAL GEOLOGY

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling during a previous site investigation. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and medium plastic clay from 20 to 24 feet.

SECTION-THREE

3.0 GEOLOGY AND HYDROGEOLOGY

The subject properties are located on a flat topography with elevation of approximately 16 feet MSL. The nearest stream is San Francisquito Creek, approximately 4,000 feet south of the subject site. There are no nearby natural drainages or streams. The nearest water body is the San Francisco Bay, whose historic margin was approximately 1,000 feet north. Tidelands and open water are further north. (Hoexter Consulting, Inc., 2006). .

The site is located within the central region of the Coast Ranges Geomorphic Province, which extends from the Oregon border south to the Transverse Ranges. The general topography is characterized by subparallel, northwest trending mountain ranges and intervening valleys. The region has undergone a complex geologic history of sedimentation, volcanic activity, folding, faulting, and uplift and erosion. The site is located within the relatively flat-lying, alleviated San Francisco Bay Plain / Santa Clara Valley, the eastern flank of the uplifted Santa Cruz Mountains is to the southwest (Hoexter Consulting, Inc., 2006).

The local geology in the investigated area is relatively uniform as indicated from the subsurface drilling during a previous site investigation. The strata can be described into the following three layered intervals:

- Overburden low to highly plastic black silty clay to a depth of approximately 6 feet, underlain by brown sandy silt to a depth of approximately 8 to 9 feet.
- Brown dense sand and gravel to a depth of approximately 18 to 19 feet, and
- Gray with orange-mottled soft to stiff silty clay of low plasticity from 19 feet to the depth of 20 feet, and clay with medium plasticity from 20 to 24 feet.

The subsurface investigation for this RI project was limited to the shallow soil up to five feet since PCE was the chemical of concern detected above the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow and deep soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

SECTION-FOUR

4.0 SCOPE OF WORK FOR SOIL TREATMENT AND SAMPLING

The scope of work for the soil treatment program and sampling at the subject site is as follows:

- Subsurface drilling permit was not obtained from San Mateo County Health Department Groundwater Protection Program (GPP), since drilling does not extend to groundwater elevation.

- Underground Service Alert was notified.

- **Drilling 80 soil borings** and installing 80 injection elements at 3 feet intervals as explained below..
- 20 vertical injection elements were each installed to 5 feet below ground surface (bgs) at the location of the former gas station along the direction of the lateral sewer line.
- 40 vertical injection elements were each installed to 3 feet below ground surface (bgs) at the location of the former drycleaner's chemical waste storage area.
- 10 horizontal borings were constructed and injection elements installed around the building structure targeting 3 and 5 feet bgs.
- Another 10 vertical borings were constructed and injection elements installed inside the building structure targeting 5 feet. The 1 to 3, and 1 to 5 feet shallow depths were targeted because PCE were detected above its Environmental Screening Levels in shallow soil at 1 to 3, and 1 to 5 feet bgs, during the previous investigations at the site.
- **Injection of chemicals through 80 injection elements.** The injection points were located at 3 feet intervals apart over the entire contaminated zones.
- **Soil samples were collected after soil treatment, from 1 to 5 feet bgs at the mid point between two injection elements. Treated soil samples were submitted for laboratory analysis to confirm if soil were treated to below ESLs.**.

SECTION-FIVE

5.0 DRILLING AND SAMPLING

Based on the laboratory results from remedial investigations, 80 soil borings were drilled at contaminated zone areas with levels of PCE contamination above its ESLs as shown in Figure 2. The equipment and drilling procedures were explained in the following paragraphs.

80 soil borings were constructed at the site, and 80 injection elements were installed in the borings at 3 feet lateral intervals as described below. 20 vertical injection elements were each installed to 5 feet below ground surface (bgs) at the location of the former Mobil gas station along the direction of the lateral sewer line. 40 vertical injection elements were each installed to 3 feet below ground surface (bgs) at the location of the former drycleaner's chemical waste storage area. 10 horizontal borings were constructed and injection elements installed around the building structure targeting 1 to 3 and 1 to 5 feet bgs. Another 10 vertical borings were constructed and injection elements installed inside the building structure targeting 1 to 5 feet. The 1 to 3 and 1 to 5 feet shallow depths were targeted because PCE were detected above its Environmental Screening Levels in shallow soil at 3 and 5 feet bgs during the previous investigations at the site.

5.1 Drilling

The auger drill method was used to drill borings at the site for collection of soil samples. DDEE performed this drilling work. The soil samples were collected using a slide hammer attached to a 2-inch diameter spilt spoon.

5.2 Collection of Soil Samples

Soil samples were collected at the mid point between two injection elements after the soil treatment events using 2-inch diameter stainless steel samplers. The target depth of these samplings were 1 to 3, and 1 to 5 feet bgs.

Stainless steel samplers with disposable PVC liners were used for collecting soil samples after the soil treatment. The liners were removed from the stainless steel sampler, capped at both ends, labeled and kept in ice chest. The soil samples were delivered to the State-certified hazardous waste laboratory within 24 hours under proper chain-of- custody record.

To prevent cross-contamination the soil sampling equipments were washed with an Alconox solution prior to sampling from another location, and followed by two rounds of rinsing with water, and a final rinsing with de-ionized water.

5.3 Quality Assurance/Quality Control

Equipment calibration procedures and field documentation procedures were implemented by DDEE field personnel. Soil samples collected were labeled with unique ID, with date and time of sampling, and initials of the sampler. The samples were shipped under proper chain of custody procedures to McCampbell Analytical, Inc., a State certified laboratory. A project diary/time log was developed for the activities performed at the site, which include:

- Project name and location;
- Contract number;
- Name, title, company performing work, including subcontractors;
- Date work is being performed;
- Actual begin and end times of work;
- Description of work being performed;
- Equipment utilized on site;
- Any observations or remarks to clarify work being performed; and
- Change orders issued if any.

In addition DDEE maintained the record of the following documents:

- Chemicals of concern from previous investigation..
- Project Field Logs: The project notebook and all field memorandums.
- Correspondence: All written correspondence and telephone conversation records.
- Data Presentation: All maps and tables generated from basic data analyses.
- Data Verification: Documentation that all tables, maps and texts using basic information have been reviewed.
- Field procedures, forms, maps, and analytical data

SECTION-SIX

6.0 LITHOLOGY

As shown in the boring logs in Appendix B, at the location of the chemical storage area, black, sandy, silty clay with gravel (CH) was encountered in the top 2 feet bgs, which was underlain by brown silty clay (CH) up to 3 feet bgs.

At the location of the former Mobil gas service station along the lateral sewer line , clay and silt with low to medium plasticity (CH) was encountered from surface down to 5 feet bgs.

At the location of the laundry machine inside the building, 6 in concrete pavement, black, sandy, silty clay with gravel (CH) was encountered in the top 2 feet bgs, which was underlain by brown silty clay (CH) down to 5 feet bgs.

The horizontal borings constructed around the building structure for injection points encountered silt, clay, sandy clay and gravel up to 5 feet bgs.

SECTION-SEVEN

7.0 IN-SITU SOIL TREATMENT

The in-situ soil treatment program consists of injection of 12% hydrogen peroxide and 25% sulfuric acid into the soil through slotted metallic iron pipes (the injection elements). The chemical reaction is the Fenton's Reaction process. The Fenton's Reaction process is used as an in-situ remedial treatment technology that destroys organic contamination through co-existing chemical oxidation and reduction.

7.1 Fenton's Reaction Process

The soil treatment process is based on the fundamental principles of Fenton's chemistry. In 1894 H.J.H. Fenton first demonstrated the use of Fenton's chemistry by oxidation of tartaric acid using a soluble iron-catalyzed decomposition of dilute hydrogen peroxide under acidic conditions. The treatment process generates free radicals when iron catalyst reacts with hydrogen peroxide. The principal chemical reaction associated with the Fenton's process is provided below.

$H_2O_2 + Fe^{2+} \Rightarrow OH\bullet + OH^- + Fe^{3+}$
$H_2SO_4 \Rightarrow H^+ + HSO_4^- \Rightarrow 2H^+ + SO_4^{2-}$

Where,
H_2O_2 = Hydrogen Peroxide, Fe^{2+} = Ferrous Ion, Fe^{3+} = Ferric Ion, $OH\bullet$ = Hydroxyl Radicals

$H_2O_2 + OH\bullet \Rightarrow HO_2\bullet + H_2O$
$HO_2\bullet \Rightarrow H^+ + O_2^{\bullet-}$
$HO_2\bullet + O_2^{\bullet-} \Rightarrow HO_2^- + O_2$
Where
$O_2^{\bullet-}$ = superoxide radical anion, HO_2^- = hydroperoxide anion, $HO_2\bullet$ = perhydroxyl radical

7.2 Soil Treatment Program

The treatment program consisted of six field injection events performed between March 2009 and May 2009. A 44 yd^3 volume at the location of the former waste chemical storage area, 73.4 yd^3 volume at the former Mobil gas station along the sewer line and a 140 yd^3 volume inside the building area were selected as the target treatment area (Figure 2). The injection elements were installed at 3 feet apart. The distribution of chemicals for soil treatment were performed using permanent injection element points. This injection approach enabled targeting individual hot spots and was intended to enhance total contaminant destruction.

The target treatment depths for the treatment program ranged from approximately 1 to 3, and 1 to 5 ft bgs. A total of 80 permanent injection points (Figure 5) were utilized to distribute the chemical reagent

during all six injection events. A total of 15 sampling locations were used to evaluate the treatment effectiveness.

Injection Protocol:

DDEE technicians prepared stabilized 12% hydrogen peroxide from 30% hydrogen peroxide. The 12% hydrogen peroxide was delivered to the site in white 5 gallon polyethylene containers. All the white 5 gallon polyethylene containers were enclosed in Department of Transportation approved 55 gallon drum. DDEE technicians prepared stabilized 25% sulfuric acid from 90% sulfuric acid. The 25% sulfuric acid was delivered to the site in yellow 5 gallon polyethylene containers. All the yellow 5 gallon polyethylene containers were enclosed in Department of Transportation approved 55-gallon drums. DDEE technicians wore proper personal protective equipment and used appropriate safety procedures during the field work. The metallic iron injection elements and the natural iron in the soil act as catalyst for the chemical reaction. A pressure and flow test equipments were used to test the flow of chemicals through the slotted injection elements into the subsurface soil at the start of each injection event. The flow test was done with the hydrogen peroxide.

Injection Schedule:

The chemical reagents were injected through polyethylene hoist from the 5 gallon containers into the soil at the site on six separate injection events: The injection events occurred on the following dates: March 4, 2009, March 11, 2009, March 13, 2009, March 18, 2009, March 20, 2009, and April 4, 2009. Chemical reagents were injected into all the injection elements during each injection event.

7.3 Effectiveness

DDEE injected a total of approximately 300 gallons of hydrogen peroxide and sulfuric acid through 80 injection elements located, 3 feet intervals at the Kitty's Cleaner .

Results of the treatment program indicated significant decreases in PCE contamination from pre to post-treatment. PCE concentration levels in soil decreased by approximately 65% to 86% at the location of the former chemical waste storage area. PCE concentration levels in soil decreased by approximately 86% to 96% at the location of the former Mobil Gas Station along the lateral sewer line. PCE concentration levels in soil decreased by approximately 88% to 91% inside the building area. The treatment results for the soil are shown in the Table 1.

7.4 Histogram Chart

The Histogram chart presents the laboratory analytical results of soil samples collected at two months apart after completion of the soil treatment at the site. The chart also presents a graphical display of site investigation results, and PCE environmental screening levels (see figure 4).

The data for the highest concentration levels of PCE detected during the site investigation were plotted because it shows the pre treatment maximum values. The post treatment chemical values for PCE concentration levels remaining in soil were plotted. The cleanup goal values were also plotted on the Histogram chart. The post treatment bars for PCE concentration values were shown to be below the bars for the SF Bay RWQCB ESLs.

SECTION-EIGHT

8.0 LABORATORY ANALYSIS PROGRAM

The soil samples collected after this treatment program were submitted to McCampbell Analytical Inc. The soil samples collected after the treatment program were analyzed for the following chemical constituents, according to the indicated methods (see Appendix C):

Matrix	Test
Solid	Hold VOCs: EPA 8260B

8.1 Summary of Analytical Results

8.1.1 Soil Analytical Results

The laboratory analytical results indicated that PCE was reduced from 280 ug/Kg concentration levels to between 98 and 37 ug/KG concentration levels, a 65 to 86% reduction at the location of the former waste chemical storage areas.

The laboratory analytical results indicated that PCE was reduced from 2700 ug/Kg concentration levels to 110 ug/Kg concentration levels, a 96% reduction at the location of the former Mobil gas station along the lateral sewer line area.

The laboratory analytical results indicated that PCE was reduced to 68 and 84 ug/Kg concentration levels, a 94% reduction inside the building at the location of the laundry machine. The calculation for PCE reduction levels inside the building was compared to a location very close to the building structure (S8 is a sampling location during remedial investigation, concentration value was 1500 ug/Kg) A summary of the analytical results is presented in Table 1.

SECTION-NINE

9 HANDLING OF INVESTIGATION DERIVED WASTE

All the soil cuttings were stored in two DOT- approved 55- gallon drums and treated at the site.

SECTION-TEN

10 SUMMARY OF FINDINGS AND RECOMMENDATION

The soil samples collected after soil treatment program at the site indicated that PCE concentration levels in soil at the site have been reduced to **below** their respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

Impact on Beneficial Use of Surface and Groundwater

Based on current and proposed use of the subject site and adjacent properties, the chemical analytical results were compared to the SF RWQCB, Region 02, Environmental Screening Levels (ESL, 2007.) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

Post remedy confirmatory laboratory test results indicated that PCE levels in soil at the site have been treated to below its SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water. At this time there is no domestic well at the site and no surface water body in the vicinity of the site.

Conclusion and Recommendations

Based on soil post remedy laboratory analytical results from the site, and the current regulatory guidelines, and professional judgment of DDEE staff, the conclusions and recommendations below are offered:

The areas at the site where PCE concentration level was above ESLs have now been treated to below ESLs.

- Post remedy laboratory analytical results of soil indicated that the concentration levels of PCE detected at the Former Mobil gas station along the lateral sewer line at the site have reduced from 2700 ug/Kg to 110 ug/Kg during March 2009, and the levels remained at 110 ug/Kg during the May 2009 confirmatory sampling event. These confirmatory results for PCE are below the SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

- Post remedy laboratory analytical results of soil indicated that the concentration levels of PCE detected at the Former chemical waste storage area at the site have reduced from 280 ug/Kg to 37 ug/Kg during March 2009, and was measured at the concentration levels of 98 ug/Kg during the May 2009 confirmatory sampling event. These confirmatory results for PCE are below the SF

Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

- Post remedy laboratory analytical results of soil indicated that the concentration levels of PCE detected at the subsurface by the drycleaning machine area inside the buildings have been reduced to 68 ug/Kg during March 2009, and was measured at the concentration levels of 84 ug/Kg during the May 2009 confirmatory sampling event. These confirmatory results for PCE are below the SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water.

The chemical contamination at the site has been reduced within the shallow soil. The shallow soil with PCE contamination have been treated, and PCE contamination levels have been reduced to below the respective SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils. The treated soil areas are at the chemical waste storage area, the former Mobil gas station area along the direction of the lateral sewer line and inside the building structure.

DDEE staff hereby recommends a no further action, and a case closure for the Kitty's Cleaners, the property located at 910 and 904 Newbridge Street, East Palo Alto, California. The chemical contamination levels at the site and at the source area beneath the building structure have been reduced to below the cleanup goals (i.e., below SF Bay RWQCB Environmental Screening Levels (ESLs) for shallow soils at residential and commercial land use areas, where groundwater is a current or potential source of drinking water). Therefore protection for human health and the environment is achieved, and carcinogenic risk for future resident at the site has been reduced. DDEE will supervise the removal and disposal of the remaining equipments inside the building structure as agreed by the property owner as soon as possible.

SECTION-ELEVEN

11.0 LIMITATIONS

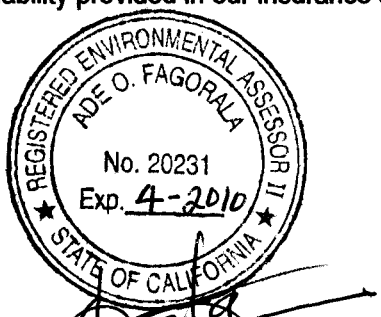
This report describes the methodology for drilling, and post soil treatment sampling at the Kitty Cleaners facility. The report has been reviewed by a registered civil Engineer in the State of California, his signature and license appears below.

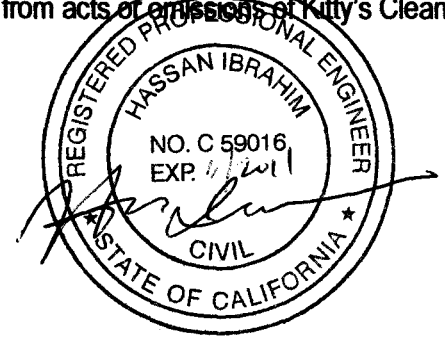
DDEE has focused on locating the most significant sources, or potential sources for implementing soil remediation. DDEE has concluded a clean-up and/or monitoring program until the concentrations of the contaminant of concern has reached acceptable cleanup levels to the regulatory agencies.

DDEE's liability to Kitty's Cleaners for injury or damage to persons or property arising out of work performed for Kitty's and for which legal liability may be found to rest upon DDEE, other than for professional errors and omissions, will be limited to its general liability insurance coverage maximum limit.

For any damage on account of any error, omission, or other professional negligence, DDEE's liability will be limited to a sum not to exceed our fees.

Kitty's Cleaner shall indemnify DDEE against any claims or costs, which exceed the limitation on DDEE's liability provided in our insurance coverage, or results from acts or omissions of Kitty's Cleaners.





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SECTION-TWELVE

12.0 REFERENCES

DDEE, July 2008, Remedial Investigation Report of Contaminated Soil at Kitty Cleaners, 910 Newbridge Street, East Palo Alto, California

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09

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Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater – INTERIM FINAL – November 2007, CA, SF Bay RWQCB

TABLE 1

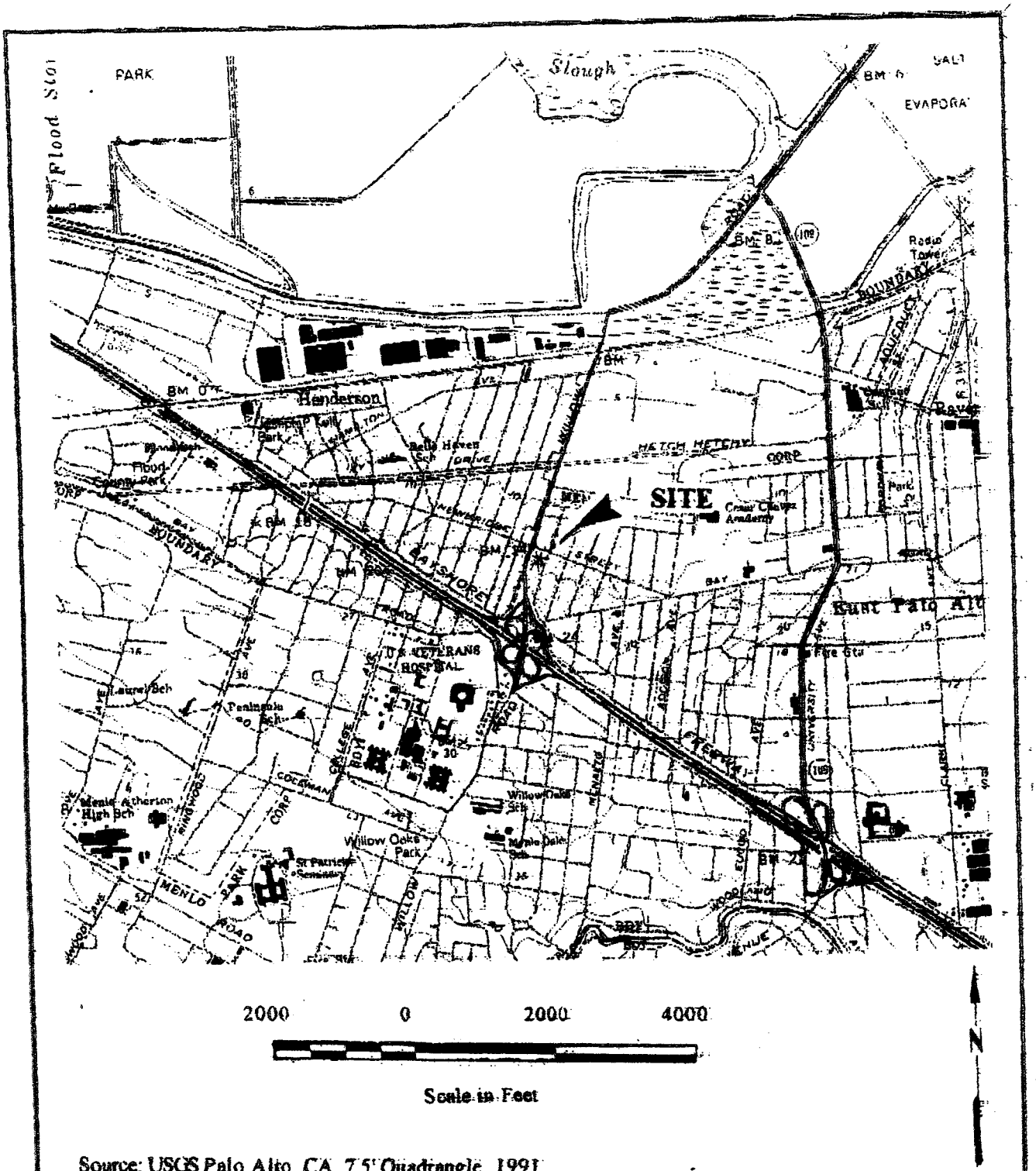
SUMMARY OF SOIL ANALYTICAL RESULTS

Table - 1			
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES			
REMEDIAL INVESTIGATION SOIL DATA	SAMPLE ID		Tetrachloroethene
	S4@2.5 - 3ft	Waste Chemical Storage Area	77 ug/kg
	S5@2.5 - 3ft		180 ug/kg
	S6@2.5 - 3ft		440 ug/kg
	S7@2.5 - 3ft		1300 ug/kg
	S8@2.5 - 3ft		1500 ug/kg
	S9@2.5 - 3ft		490 ug/kg
	S10@2.5 - 3ft		46 ug/kg
	S11@4.5 - 5ft	Sewer Line and Gas Station Area	ug/kg
	S12@4.5 - 5ft		14 ug/kg
	S13@4.5 - 5ft		43 ug/kg
	S14@4.5 - 5ft		21 ug/kg
	S15@4.5 - 5ft		25 ug/kg
	S16@4.5 - 5ft		23 ug/kg
	S17@4.5 - 5ft		44 ug/kg
PREVIOUS SITE INVESTIGATION-SOIL DATA	BW 1@1ft	Waste Chemical Storage Area	280 ug/kg
	BW 1@2ft		240 ug/kg
	BW 2@1ft	Sewer line and Gas Station Area	2700 ug/kg
	BW2@5ft		720 ug/kg
Post Remediation Soil Data	Waste Chemical Storage Area	98 ug/kg	37 ug/kg
	Sewer line and Gas Station Area	110 ug/kg	110 ug/kg
	Machine Area inside building	84 ug/kg	68 ug/kg
		5/7/2009	3/28/2009
mg/Kg = milligrams per kilogram			
ug/Kg = micrograms per kilogram			

ESL 370 ug/kg

FIGURE 1

SITE LOCATION MAP



Source: USGS Palo Alto, CA. 7.5' Quadrangle, 1991

WIT	910 Newbridge Street East Palo Alto, California.	FIGURE: 1 JOB: 0060 DATE: 1/1/2009

APPENDIX A

FINDINGS OF INVESTIGATIONS

Table - 1			
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES			
REMEDIAL INVESTIGATION SOIL DATA	SAMPLE ID		Tetrachloroethene
	S4@2.5 - 3ft	Waste Chemical Storage Area	77 ug/kg
	S5@2.5 - 3ft		180 ug/kg
	S6@2.5 - 3ft		440 ug/kg
	S7@2.5 - 3ft		1300 ug/kg
	S8@2.5 - 3ft		1500 ug/kg
	S9@2.5 - 3ft		490 ug/kg
	S10@2.5 - 3ft		46 ug/kg
	S11@4.5 - 5ft	Sewer Line and Gas Station Area	ug/kg
	S12@4.5 - 5ft		14 ug/kg
	S13@4.5 - 5ft		43 ug/kg
	S14@4.5 - 5ft		21 ug/kg
	S15@4.5 - 5ft		25 ug/kg
	S16@4.5 - 5ft		23 ug/kg
	S17@4.5 - 5ft		44 ug/kg
PREVIOUS SITE INVESTIGATION-SOIL DATA	BW 1@1ft	Waste Chemical Storage Area	280 ug/kg
	BW 1@2ft		240 ug/kg
	BW 2@1ft	Sewer line and Gas Station Area	2700 ug/kg
	BW2@5ft		720 ug/kg
Post Remediation Soil Data	Waste Chemical Storage Area	98 ug/kg	37 ug/kg
	Sewer line and Gas Station Area	110 ug/kg	110 ug/kg
	Machine Area inside building	84 ug/kg	68 ug/kg
		5/7/2009	3/28/2009
mg/Kg = milligrams per kilogram			
ug/Kg = micrograms per kilogram			

APPENDIX B

BORING LOGS

Waste Industries Technologies, Inc
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	2/27/09
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	Injection point
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	1:10 p.m
LOCATION	Inside Building	**DRILLING COMPLETED**	5:55 p.m
PROJECT NUMBER	0060	**WELL DEVELOPMENT DATE**	N/A
DRILLER	DDEE	**GROUND SURFACE ELEVATION**	12.29 ft
DRILLING METHOD	Hollow Stem Anger / Direct Push	**TOP OF CASING ELEVATION**	
BORING DIAMETER	6"	**SCREENED INTERVAL**	0 - 3ft
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	N/A
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	N/A
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
	ND			1 ft	CH		6in concrete pavement/Clay, Silt			
	ND			2 ft	ML		Fine to Medium Silt, Sand			Groundwater was not encountered
	ND			5 ft	CH		Clay, Silt			

Waste Industries Technologies, Inc
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	2/27/09
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	Injection Point
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	1:30 p.m
LOCATION	Mobil gas/Lateral sewer line	**DRILLING COMPLETED**	5:55 p.m
PROJECT NUMBER	0060	**WELL DEVELOPMENT DATE**	N/A
DRILLER	DDEE	**GROUND SURFACE ELEVATION**	12.29 ft
DRILLING METHOD	Hollow Stem Anger / Direct Push	**TOP OF CASING ELEVATION**	
BORING DIAMETER	6"	**SCREENED INTERVAL**	0 - 5ft
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	N/A
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	N/A
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
	ND			1 ft	CH		Clay, Silt			
	ND			2 ft	CH		Clay, Silt			Groundwater was not encountered
	ND			5 ft	CH		Clay, Silt			

Waste Industries Technologies, Inc
2285 Willow Avenue,
Pittsburg, CA94565
Telephone: (510) 258-5167
Fax:(925) 458-4958

		DATE	2/20/09
CLIENT NAME	MR . M. Karwash	**BORING/WELL NAME**	Injection point
JOB/SITE NAME	East Palo Alto, CA	**DRILLING STARTED**	1:30 p.m
LOCATION	Chemical Waste Storage Area	**DRILLING COMPLETED**	1:55 p.m
PROJECT NUMBER	0060	**WELL DEVELOPMENT DATE**	N/A
DRILLER	DDEE	**GROUND SURFACE ELEVATION**	12.29 ft
DRILLING METHOD	Hollow Stem Anger / Direct Push	**TOP OF CASING ELEVATION**	
BORING DIAMETER	6"	**SCREENED INTERVAL**	0 - 5ft
LOGGED BY	Hassan / David Ade	**DEPTH TO WATER (First Encountered) (bgs)**	
REVIEWED BY	Hassan	**DEPTH TO WATER (Static) (bgs)**	
REMARKS	Very Good		

PID (ppm)	TPHg (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs) of Soil Samples	WELL DIAGRAM	COMMENTS
	ND			1 ft	CH		Clay, Silt			
	ND			2 ft	ML		Fine to Medium Silt, Sand			Groundwater was not encountered
	ND			3 ft	CH		Clay, Silt			

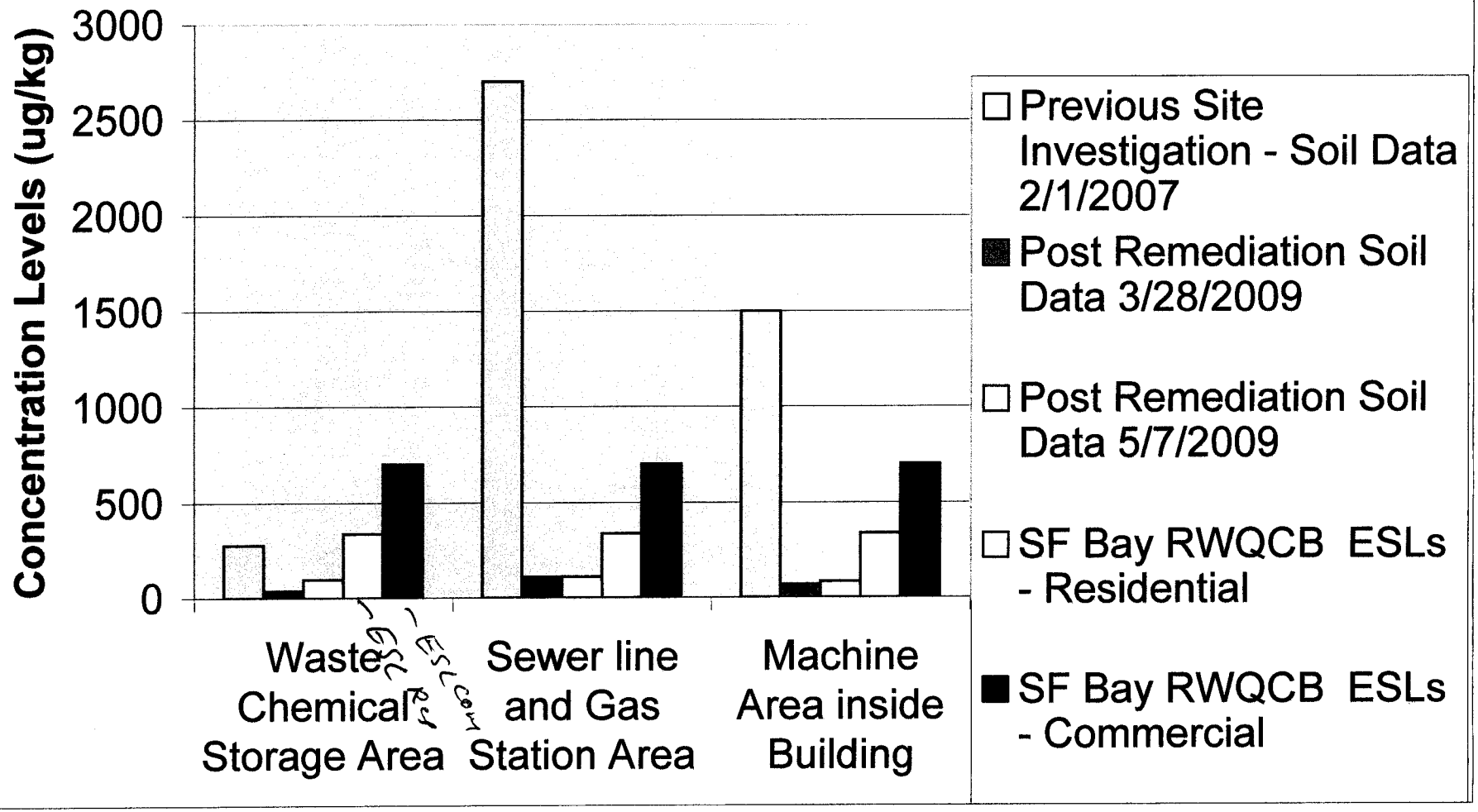
FIGURE 2

BORING LOCATIONS FOR INJECTION ELEMENTS IN CONTAMINATED SOIL ZONES

FIGURE 3

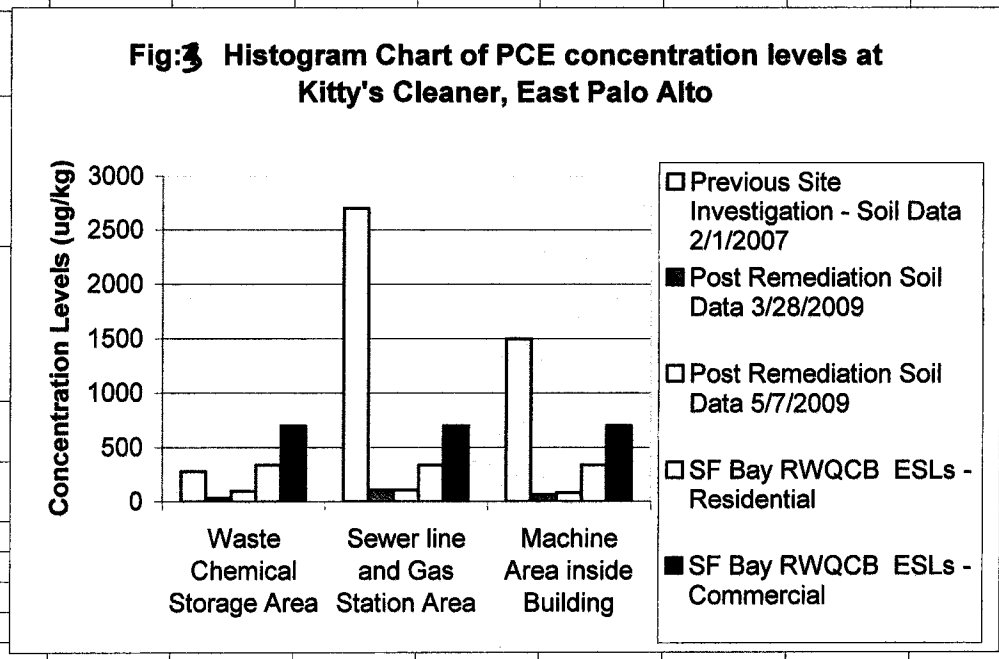
HISTOGRAM CHART OF PCE CONCENTRATION LEVELS

Fig: 3 Histogram Chart of PCE concentration levels at Kitty's Cleaner, East Palo Alto



		Waste Chemical Storage Area	Sewer line and Gas Station Area	Machine Area inside Building
Previous Site Investigation - Soil Data	2/1/2007	280	2700	1500
Post Remediation Soil Data	3/28/2009	37	110	68
	5/7/2009	98	110	84
SF Bay RWQCB	ESLs - Residential	340	340	340
SF Bay RWQCB	ESLs - Commercial	700	700	700

Fig:3 Histogram Chart of PCE concentration levels at Kitty's Cleaner, East Palo Alto



APPENDIX C

LABORATORY ANALYTICAL RESULTS AND CHAIN OF CUSTODY RECORDS

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

DDEE	Client Project ID: Kitty; East Palo Alto	Date Sampled: 03/28/09
		Date Received: 03/30/09
2285 Willow Ave.	Client Contact: David Fagorala	Date Extracted: 03/30/09
Pittsburg, CA 94565	Client P.O.:	Date Analyzed 04/04/09

Volatile Organics by P&T and GC/MS*

Extraction method SW5030B Analytical methods SW8260B Work Order: 0903732

Lab ID	Client ID	Matrix	Tetrachloroethene	DF	% SS
001A	C1 (Sewer Line)	S	0.11	1	94
002A	C2	S	0.037	1	96
003A	C3	S	0.068	1	95

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 42349 | WorkOrder: 0903732

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 0904040-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	82.8	75.6	8.98	78.2	79.6	1.83	60 - 130	30	60 - 130	30
Benzene	ND	0.050	120	112	6.79	114	120	4.74	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	83.8	74.9	11.1	74.3	76.8	3.29	60 - 130	30	60 - 130	30
Chlorobenzene	ND	0.050	110	104	5.94	105	108	2.36	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	97.1	91.1	6.39	91.8	93.1	1.43	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	90.9	84.3	7.55	87.6	89.9	2.63	60 - 130	30	60 - 130	30
1,1-Dichloroethene	ND	0.050	79.9	75	6.33	78	82.4	5.58	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	104	98.4	5.85	103	104	1.33	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	105	97.1	8.04	102	105	2.63	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	94.7	87.8	7.51	91.7	92.3	0.562	60 - 130	30	60 - 130	30
Toluene	ND	0.050	129	120	7.20	123	127	3.40	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	111	105	5.35	109	112	3.20	60 - 130	30	60 - 130	30
%SS1:	83	0.12	70	70	0	72	72	0	70 - 130	30	70 - 130	30
%SS2:	105	0.12	97	97	0	97	96	1.12	70 - 130	30	70 - 130	30
%SS3:	86	0.012	83	83	0	84	86	2.30	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 42349 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903732-001A	03/28/09 8:00 AM	03/30/09	04/04/09 6:16 AM	0903732-002A	03/28/09 11:00 AM	03/30/09	04/04/09 6:58 AM
0903732-003A	03/28/09 1:00 PM	03/30/09	04/04/09 7:41 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
Pittsburg, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

0903739

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: David Bill To: DDEE
Company: DDEE
E-Mail:
Tele: (510)-252-5167 Fax: (925) 432-4758
Project #: Project Name: K+117
Project Location: East Palo Alto
Sampler Signature: [illegible]

Analysis Request columns: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE; TPH as Diesel (8015); Total Petroleum Oil & Grease (1664 / 5520 E B&F); Total Petroleum Hydrocarbons (418.1); EPA 502.2 / 601 / 8010 / 8021 (HVOCs); MTBE / BTEX ONLY (EPA 602 / 8021); EPA 505/ 608 / 8081 (Cl Pesticides); EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners; EPA 507 / 8141 (NP Pesticides); EPA 515 / 8151 (Acidic Cl Herbicides); EPA 524.2 / 624 / 8260 (VOCs) PCE; EPA 525.2 / 625 / 8270 (SVOCs); EPA 8270 SIM / 8310 (PAHs / PNAs); CAM 17 Metals (200.7 / 200.8 / 6010 / 6020); LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020); Lead (200.7 / 200.8 / 6010 / 6020)

Other

Comments: Filter Samples for Metals analysis: Yes / No

SAMPLE ID	LOCATION/ Field Point Name	Sampling Date	Sampling Time	# Containers	Type Containers	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: ICE	HCl	HNO_3	Other	EPA 524.2 / 624 / 8260 (VOCs) PCE
C1 ([illegible])	[illegible]	3/22/09	8 [illegible]	[illegible]			✓				✓				✓
C2	[illegible]	3/22	11:00	✓			✓				✓				✓
C3	[illegible]	3/22	1 pm	✓			✓				✓				✓

Relinquished By:	Date:	Time:	Received By:
David [illegible]	3/30	2 pm	Enviro Tech Services AM 8:30
Envirotech T.L	3/30	15:34	[illegible]
[illegible]	3/30/09	1900	[illegible]

ICE/t° ✓ [illegible]
GOOD CONDITION ✓
HEAD SPACE ABSENT N/A
DECHLORINATED IN LAB N/A
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB [illegible]

PRESERVATION VOAS O&G METALS OTHER pH<2

COMMENTS:

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0903732 **ClientCode: DDEE**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☐ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565
(510) 258-5167 FAX (925) 458-4958

Email: wasteit@aol.com
cc:
PO:
ProjectNo: Kitty; East Palo Alto

Bill to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565

Requested TAT: 5 days

Date Received: **03/30/2009**
Date Printed: **03/30/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0903732-001	C1 (Sewer Line)	Soil	3/28/2009 8:00	☐	A											
0903732-002	C2	Soil	3/28/2009 11:00	☐	A											
0903732-003	C3	Soil	3/28/2009 13:00	☐	A											

Test Legend:

1	8260VOC_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **DDEE**
Date and Time Received: **3/30/09 7:10:17 PM**

Project Name: **Kitty; East Palo Alto**
Checklist completed and reviewed by: Samantha Arbuckle

WorkOrder N°: **0903732** Matrix Soil
Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 3.9°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

DDEE	Client Project ID: Kitty	Date Sampled: 05/07/09-05/08/09
		Date Received: 05/08/09
2285 Willow Ave.	Client Contact: David Fagorala	Date Extracted: 05/08/09
Pittsburg, CA 94565	Client P.O.:	Date Analyzed 05/12/09

Volatile Organics by P&T and GC/MS*

Extraction method SW5030B Analytical methods SW8260B Work Order: 0905153

Lab ID	Client ID	Matrix	Tetrachloroethene	DF	%SS	Comments
001A	C12	S	0.11	1	79	
002A	C22	S	0.098	1	79	
003A	C32	S	0.084	1	80	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 43089 WorkOrder 0905153

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 0905102-006A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	83.3	82.5	0.949	76.3	75.6	0.885	60 - 130	30	60 - 130	30
Benzene	ND	0.050	119	119	0	103	103	0	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	78.6	83.6	6.21	78.4	82.1	4.68	60 - 130	30	60 - 130	30
Chlorobenzene	ND	0.050	104	103	0.298	93.8	92.1	1.75	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	103	102	0.955	89.6	88.2	1.55	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	92.7	92.3	0.410	83.7	82.6	1.39	60 - 130	30	60 - 130	30
1,1-Dichloroethene	ND	0.050	95.6	96.5	0.901	93.2	91.5	1.83	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	93.3	92.7	0.590	87.2	86.6	0.722	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	99.9	99.3	0.595	89.4	88.1	1.49	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.3	88.5	0.216	80.6	80.2	0.502	60 - 130	30	60 - 130	30
Toluene	ND	0.050	127	127	0	121	117	3.13	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	122	123	1.06	101	101	0	60 - 130	30	60 - 130	30
%SS1:	74	0.12	71	72	1.83	89	89	0	70 - 130	30	70 - 130	30
%SS2:	114	0.12	99	99	0	97	97	0	70 - 130	30	70 - 130	30
%SS3:	93	0.012	88	85	3.64	84	83	1.82	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 43089 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0905153-001A	05/08/09 7:00 AM	05/08/09	05/12/09 2:21 AM	0905153-002A	05/07/09 6:30 PM	05/08/09	05/12/09 3:04 AM
0905153-003A	05/07/09 7:00 PM	05/08/09	05/12/09 3:46 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701 090 5153
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW)

☐ Check if sample is effluent and "J" flag is required

Report To: David Fagerala **Bill To:** DDEE

Company: DDEE

2285 Willow Ave
Pittsburg, CA 94565 **E-Mail:** Wasteit@aol.com

Tele: (510) 258-5167 **Fax:** (925) 458-4958

Project #: Kitty **Project Name:**

Project Location: East Palo Alto

Sampler Signature: Dave

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
C12	sewer line	5/8	7:am	3	Voas Plas		✓				✓			
C22	waste store	5/7	6:30pm	2	Stcl		✓				✓			
C32	inside	5/7	7:00pm	1	"		✓				✓			

Analysis Request

BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs) PCE	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Comments
										✓ ✓ ✓							

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
Dave	5/8	9:15am	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 0.8 **COMMENTS:**

GOOD CONDITION____
HEAD SPACE ABSENT____
DECHLORINATED IN LAB____
APPROPRIATE CONTAINERS____
PRESERVED IN LAB____

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0905153 **ClientCode: DDEE**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
David Fagorala
DDEE
2285 Willow Ave.
Pittsburg, CA 94565
(510) 258-5167 FAX (925) 458-4958

Email: wasteit@aol.com
cc:
PO:
ProjectNo: Kitty

Bill to:
Omo Fagbohungbe
DDEE
2285 Willow Ave.
Pittsburg, CA 94565
funmifagorala@yahoo.com

Requested TAT: **5 days**

Date Received: **05/08/2009**
Date Printed: **05/08/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
0905153-001	C12	Soil	5/8/2009 7:00	☐	A											
0905153-002	C22	Soil	5/7/2009 18:30	☐	A											
0905153-003	C32	Soil	5/7/2009 19:00	☐	A											

Test Legend:

1 8260VOC_S	2	3	4	5
6	7	8	9	10
11	12			

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **DDEE**
Date and Time Received: **05/08/09 11:36:00 AM**
Project Name: **Kitty**
Checklist completed and reviewed by: Maria Venegas
WorkOrder N°: **0905153** Matrix Soil
Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 6.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

David Fagorala
Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612

Lab Certificate Number: 53722
Issued: 02/09/2007

P.O. Number: Verbal

Certificate of Analysis - Final Report

On February 05, 2007, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test / Comments
Liquid	TPH-Extractable with SGCU: EPA 3510C / EPA 3630C / EPA 8015B(M)
	TPH-Purgeable: GC/MS
	VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater
Solid	Hold
	TPH-Extractable with SGCU: EPA 3630C / EPA 8015B(M)
	VOCs: EPA 8260B

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

C. L. Thom

C. L. Thom
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

ertificate of An alysis - Data Report

) # : 53722-001 Sam ple ID: BW1 **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

-Purgeable : GC/

meter	..sult	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
H as Gas oline	ND		1.0	25	µg/L	N/A	N/A	2/6/2007	WM1070206

urrogate	Surrogate Recovery	Control Limits (%)	Analyzed by: XBian
Brom ofluorobenzene	94.5	60 - 130	Reviewed by: MaiChiTu
mofluoromethane	99.1	60 - 130	
uene-d8	97.6	60 - 130	

-Extractable with SGCU: EPA 3510C / EPA 3630C / EPA 8015B(M)

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
H as Diesel	ND		1.0	50	µg/L	2/5/2007	WD070205AS	2/7/2007	WD070205AS
as Motor Oil	ND		1.0	200	µg/L	2/5/2007	WD070205AS	2/7/2007	WD070205AS

rrogate	Surrogate Recovery	Control Limits (%)	Analyzed by: MTran
-Terphenyl	74.2	16 - 137	Reviewed by: MaiChiTu

n Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Certificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

Lab # : 53722-001 **Sample ID:** BW1 **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2,3-Trichloropropane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,2-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,3-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
1,4-Dioxane	ND		1.0	50	µg/L	N/A	N/A	2/6/2007	WM1070206
2,2-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
2-Butanone (MEK)	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
2-Hexanone	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
4-Methyl-2-Pentanone(MIBK)	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
Acetone	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
Acetonitrile	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Acrolein	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Acrylonitrile	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Benzyl Chloride	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Carbon Disulfide	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206

Detection Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Certificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

Lab #: 53722-001 **Sample ID: BW1** **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
cis-1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Cyclohexanone	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Freon 113	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Iodomethane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Isopropanol	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Methylene Chloride	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Pentachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	2/6/2007	WM1070206
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Tetrachloroethene	3.1		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Tetrahydrofuran	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
trans-1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
trans-1,4-Dichloro-2-butene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Vinyl Acetate	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105	60 - 130
Dibromofluoromethane	94.7	60 - 130
Toluene-d8	105	60 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Vaste Ind. Technologies
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Oakland, CA 94612
ttn: David Fagorala

ficate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-002 **Sample ID: BW2** **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

er	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
chloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
anone	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
omethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
difluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
propyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
nzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
3	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
orobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
ane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
nol	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
ylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	2/6/2007	WM1070206
-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	2/6/2007	WM1070206
ene Chloride	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
enzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
lbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
alene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
pyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
loroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
ylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
myl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
nol (TBA)	ND		1.0	10	µg/L	N/A	N/A	2/6/2007	WM1070206
l Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
tylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
roethene	6.4		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
drofuran	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
-Dichloro-2-butene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
pethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
orofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
etate	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
hloride	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
, Total	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206

ogate	Surrogate Recovery	Control Limits (%)
omofluorobenzene	105	60 - 130
romofluoromethane	96.7	60 - 130
ne-d8	106	60 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

n Limit = Detection Limit for Reporting ND = Not Detected at or above the Detection Limit.

D/F = Dilution and/or Prep Factor includes sample volume adjustments. Qual = Data Qualifier

2/8/2007 12:04:51 PM - ECamille

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ttn: David Fagorala

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P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-002 **Sample ID: BW2** **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

geable: GC/MS

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
s Gasoline	ND		1.0	25	µg/L	N/A	N/A	2/6/2007	WM1070206

gate	Surrogate Recovery	Control Limits (%)	Analyzed by: XBian
ofluorobenzene	95.0	60 - 130	Reviewed by: MaiChiTu
romofluoromethane	101	60 - 130	
e-d8	99.2	60 - 130	

ractable with SGCU: EPA 3510C / EPA 3630C / EPA 8015B(M)

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
s Diesel	ND		1.0	50	µg/L	2/5/2007	WD070205AS	2/7/2007	WD070205AS
Motor Oil	ND		1.0	200	µg/L	2/5/2007	WD070205AS	2/7/2007	WD070205AS

gate	Surrogate Recovery	Control Limits (%)	Analyzed by: MTran
erphenyl	83.4	16 - 137	Reviewed by: MaiChiTu

Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-003 **Sample ID: BW3** **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

r	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
trachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
trachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
ichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
oroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
roethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
loropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
hlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
hloropropane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
chlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
ethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
omo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
moethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
robenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
hloroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
ropropane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
methylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
lorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
ropropane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
hlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
ne	ND		1.0	50	µg/L	N/A	N/A	2/6/2007	WM1070206
ropropane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
none (MEK)	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
thyl-vinyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
oluene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
none	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
luene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
yl-2-Pentanone(MIBK)	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
le	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
ile	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
nloride	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
zene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
loromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
loromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
thane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
sulfide	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
trachloride	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
zene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
ne	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
hane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206

Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
ation and/or Prep Factor includes sample volume adjustments.
Qual = Data Qualifier

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Oakland, CA 94612
Attn: David Fagorala

ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

#: 53722-003 **Sample ID: BW3** **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
xanone	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
omomethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
difluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
opyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
benzene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
3	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
hlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
hane	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
nol	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
opylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	2/6/2007	WM1070206
t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	2/6/2007	WM1070206
ene Chloride	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
ylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
lbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
thalene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
opyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
loroethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
yl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
tanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	2/6/2007	WM1070206
yl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
loroethene	2.9		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
drofuran	ND		1.0	20	µg/L	N/A	N/A	2/6/2007	WM1070206
ene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
,4-Dichloro-2-butene	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
roethene	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
rofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
cetate	ND		1.0	5.0	µg/L	N/A	N/A	2/6/2007	WM1070206
hloride	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206
es, Total	ND		1.0	0.50	µg/L	N/A	N/A	2/6/2007	WM1070206

rogate	Surrogate Recovery	Control Limits (%)
omofluorobenzene	101	60 - 130
romofluoromethane	100	60 - 130
ene-d8	109	60 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

Limit = Detection Limit for Reporting.
Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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n: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-003 **Sample ID: BW3** **Matrix:** Liquid **Sample Date:** 2/1/2007 1:30 PM

gable: GC/MS

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
soline	ND		1.0	25	µg/L	N/A	N/A	2/6/2007	WM1070206

gate	Surrogate Recovery	Control Limits (%)	Analyzed by: XBian
luorobenzene	91.1	60 - 130	Reviewed by: MaiChiTu
fluoromethane	105	60 - 130	
d8	102	60 - 130	

ctable with SGCU: EPA 3510C / EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
iesel	ND		1.0	50	µg/L	2/5/2007	WD070205AS	2/7/2007	WD070205AS
tor Oil	ND		1.0	200	µg/L	2/5/2007	WD070205AS	2/7/2007	WD070205AS

e	Surrogate Recovery	Control Limits (%)	Analyzed by: MTran
henyl	87.6	16 - 137	Reviewed by: MaiChiTu

Limit = Detection Limit for Reporting.
Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ctor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ste Ind. Technologies
.BOX 72305
kland, CA 94612
n: David Fagorala

cate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-004 **Sample ID: BW1-1Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
hloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ropene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
obenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opropane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ibenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-Chloropropane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethane (EDB)	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ropane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
lbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	500	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
MEK)	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
vinyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
tanone(MIBK)	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	250	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
de	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
omethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
de	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oride	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

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and/or Prep Factor includes sample volume adjustments.

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Waste Ind. Technologies
O.BOX 72305
Oakland, CA 94612
ttn: David Fagorala

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

ficate of Analysis - Data Report

53722-004 **Sample ID: BW1-1Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

PA 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
hloroethene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloropropene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
none	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
methane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
fluoromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
l Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
obutadiene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		2.5	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	250	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
tyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Chloride	ND		2.5	120	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
toluene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Methyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ol (TBA)	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethene	280		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
uran	ND		2.5	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloroethene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dichloropropene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dichloro-2-butene	ND		2.5	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ene	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
luoromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
te	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ide	ND		2.5	12	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
otal	ND		2.5	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

te	Surrogate Recovery	Control Limits (%)
fluorobenzene	82.9	60 - 130
ofluoromethane	108	60 - 130
8	93.9	60 - 130

Analyzed by: Mfelix
Reviewed by: EricKunn

Limit = Detection Limit for Reporting.
tion and/or Prep Factor includes sample volume adjustments.

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

0 # : 53722-004 **Sample ID:** BW1-1Ft **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

neter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
s Diesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
as Motor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

rrogate	Surrogate Recovery	Control Limits (%)	Analyzed by: Mtran
erphenyl	107	28 - 129	Reviewed by: MaiChiTu

tion Limit = Detection Limit for Reporting.
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Attn: David Fagorala

Certificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

Lab # : 53722-005 **Sample ID:** BW1-2Ft **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

Detection Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments. Qual = Data Qualifier

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Waste Ind. Technologies
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Oakland, CA 94612
Attn: David Fagorala

tificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-005 **Sample ID: BW1-2Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

EPA 8260B

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
exanone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
enzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
113	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opanol	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
pylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
halene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
achloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
utylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
utanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
utylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloroethene	240		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
s-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
yl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

rrogate	Surrogate Recovery	Control Limits (%)
-Bromofluorobenzene	95.7	60 - 130
ibromofluoromethane	108	60 - 130
oluene-d8	106	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

ction Limit = Detection Limit for Reporting.
P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

tificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-005 **Sample ID: BW1-2Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

xtractable with SGCU: EPA 3630C / EPA 8015B(M)

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Diesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
Motor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

ogate	Surrogate Recovery	Control Limits (%)
henyl	101	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

= Detection Limit for Reporting.
n and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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n: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-006 **Sample ID: BW1-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

PA 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
achloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
achloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
pethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
mo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
obenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
orobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
luene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
luene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
le	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
zene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
sulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

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ND = Not Detected at or above the Detection Limit.
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Qual = Data Qualifier

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Attn: David Fagorala

ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-006 **Sample ID: BW1-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

EPA 8260B

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
ichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
xanone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
difluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
pyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thane	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nol	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
alene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
utylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
yl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
yl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethene	42		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
drofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
s, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

rrogate	Surrogate Recovery	Control Limits (%)
omofluorobenzene	98.2	60 - 130
romofluoromethane	108	60 - 130
uene-d8	102	60 - 130

Analyzed by: MFelix
Reviewed by: MaiChiTu

tion Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

ab #: 53722-006 **Sample ID:** BW1-5Ft **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

H-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
as Diesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
H as Motor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

rrogate	Surrogate Recovery	Control Limits (%)
Terphenyl	102	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

etection Limit = Detection Limit for Reporting.
/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
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rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

ab #: 53722-007 **Sample ID:** BW1-10Ft **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

OCs: EPA 8260B

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
etone	ND		1.0	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nitrile	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
olein	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
onitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
obenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
modichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
form	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
n Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
robenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
form	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
romethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

tion Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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kland, CA 94612
n: David Fagorala

cate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-007 **Sample ID: BW1-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

A 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
oroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
romethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
obutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
l Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
uene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
(TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
yl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ene	120		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
an	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
al	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

Surrogate Recovery		Control Limits (%)	
orobenzene	87.2	60 -	130
luoromethane	97.3	60 -	130
	93.2	60 -	130

Analyzed by: Mfelix
Reviewed by: EricKum

ion Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

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Waste Ind. Technologies
.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

ficate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-007 **Sample ID: BW1-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

tractable with SGCU: EPA 3630C / EPA 8015B(M)

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
iesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
Motor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

rogate	Surrogate Recovery	Control Limits (%)
henyl	105	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

on Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.

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ctor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

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akland, CA 94612
n: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

33722-008 **Sample ID: BW1-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

PA 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
mo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
obenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		1.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
one (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
luene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
one	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
luene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
le	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
zene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
m	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
isulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
trachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
m	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

Limit = Detection Limit for Reporting.
Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

#: 53722-008 **Sample ID:** BW1-15Ft **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

: EPA 8260B

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hexanone	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
omochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
momethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
propyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
eon 113	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
methane	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
propanol	ND		1.0	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ethyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
tylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thalene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
sopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
trachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
yrene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
t-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
trachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
trahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
uene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
is-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
is-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
richloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
inyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
inyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
lenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	87.1	60 - 130
Dibromofluoromethane	103	60 - 130
Toluene-d8	93.1	60 - 130

Analyzed by: Mfelix
Reviewed by: EricKum

tection Limit = Detection Limit for Reporting.
P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
akland, CA 94612
Attn: David Fagorala

ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-008 **Sample ID: BW1-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

actable with SGCU: EPA 3630C / EPA 8015B(M)

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Diesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
otor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

ate	Surrogate Recovery	Control Limits (%)	
rphenyl	106	28 - 129	

Analyzed by: Mtran
Reviewed by: MaiChiTu

mit = Detection Limit for Reporting.
Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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kland, CA 94612
: David Fagorala

ate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-009 **Sample ID: BW1-20Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

PA 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
hloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
(MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
methane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

mit = Detection Limit for Reporting.
ion and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

ification of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-009 **Sample ID: BW1-20Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

: EPA 8260B

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
xanone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
odifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
enzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
13	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
achlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thane	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
anol	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thalene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
utylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloroethene	16		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
proethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

rrogate	Surrogate Recovery	Control Limits (%)
romofluorobenzene	97.5	60 - 130
ibromofluoromethane	111	60 - 130
uene-d8	104	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

tion Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

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ictor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ste Ind. Technologies
P.O.BOX 72305
kland, CA 94612
n: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-009 **Sample ID: BW1-20Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 1:30 PM

ctable with SGCU: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Diesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
tor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

te	Surrogate Recovery	Control Limits (%)
phenyl	97.7	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

ab # : 53722-010 **Sample ID: BW2-1Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

OCs: EPA 8260B

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
2-Tetrachloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
1-Trichloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2-Tetrachloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Trichloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dichloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ichloroethene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dichloropropene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Trichlorobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Trichloropropane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2,4-Trichlorobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Trimethylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dibromo-3-Chloropropane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dibromoethane (EDB)	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichlorobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dichloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichloropropane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
5-Trimethylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3-Dichlorobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichloropropane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichlorobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dioxane	ND		10	2000	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichloropropane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Butanone (MEK)	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hloroethyl-vinyl Ether	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hlorotoluene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Hexanone	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hlorotoluene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Methyl-2-Pentanone(MIBK)	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
cetone	ND		10	1000	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
etonitrile	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
crolein	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
crylonitrile	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
nzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
enzyl Chloride	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
omobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
omochloromethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
romodichloromethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
omoform	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
romomethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
arbon Disulfide	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
rbon Tetrachloride	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hlorobenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
nloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
loroform	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hloromethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E

etection Limit = Detection Limit for Reporting.
P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Waste Ind. Technologies
.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

ificate of Analysis - Data Report

#: 53722-010 **Sample ID: BW2-1Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

s: EPA 8260B

er	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
ichloroethene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3-Dichloropropene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
anone	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
chloromethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
omomethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
difluoromethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
opyl Ether	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
enzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3	ND		10	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
chlorobutadiene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hane	ND		10	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
anol	ND		10	1000	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
opylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
t-butyl Ether	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ene Chloride	ND		10	500	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
thalene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
opyltoluene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hloroethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
utylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
e	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
myl Methyl Ether	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
utanol (TBA)	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
tyl Ethyl Ether	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Butylbenzene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hloroethene	2700		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ydrofuran	ND		10	400	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
1,2-Dichloroethene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-1,3-Dichloropropene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-1,4-Dichloro-2-butene	ND		10	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
loroethene	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hlorofluoromethane	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Acetate	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Chloride	ND		10	50	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
nes, Total	ND		10	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E

rrogate	Surrogate Recovery	Control Limits (%)
Bromofluorobenzene	83.6	60 - 130
ibromofluoromethane	101	60 - 130
oluene-d8	93.5	60 - 130

Analyzed by: Mfelix
Reviewed by: EricKuna

ction Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ste Ind. Technologies
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akland, CA 94612
n: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-010 **Sample ID: BW2-1Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

ractable with SGCU: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
sel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
Motor Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

te	Surrogate Recovery	Control Limits (%)	
enyl	102	28	129

Analyzed by: Mtran
Reviewed by: MaiChiTu

ion Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ertificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

#: 53722-011 Sample ID: BW2-2Ft **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

s: EPA 8260B

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,2-Tetrachloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Trichloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2,2-Tetrachloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
1,2-Trichloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dichloroethene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dichloropropene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3-Trichlorobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2,3-Trichloropropane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2,4-Trichlorobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3,4-Trimethylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
1,2-Dibromo-3-Chloropropane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Dibromoethane (EDB)	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2-Dichlorobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2-Dichloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2-Dichloropropane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3,5-Trimethylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3-Dichlorobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
3-Dichloropropane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
1,4-Dichlorobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
4-Dioxane	ND		2.5	500	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2,2-Dichloropropane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Butanone (MEK)	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Chloroethyl-vinyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
2-Chlorotoluene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Hexanone	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-Chlorotoluene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
4-Methyl-2-Pentanone(MIBK)	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Acetone	ND		2.5	250	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Acetonitrile	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Acrolein	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Acrylonitrile	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Benzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Benzyl Chloride	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Bromobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Bromochloromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Bromodichloromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Bromoform	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Bromomethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Carbon Disulfide	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Carbon Tetrachloride	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Chlorobenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Chloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Chloroform	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Chloromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E

Detection Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments. Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-011 **Sample ID: BW2-2Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

EPA 8260B

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
-Dichloroethene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Dichloropropene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hexanone	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ochloromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
omethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
orodifluoromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
opyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Benzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
13	ND		2.5	25	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
lorobutadiene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ethane	ND		2.5	25	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
anol	ND		2.5	250	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
yl-t-butyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ene Chloride	ND		2.5	120	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
halene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
opropyltoluene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
hloroethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
utylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
myl Methyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Butanol (TBA)	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
utyl Ethyl Ether	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
utylbenzene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
achloroethene	390		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ydrofuran	ND		2.5	100	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
ne	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-1,2-Dichloroethene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
1,3-Dichloropropene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
-1,4-Dichloro-2-butene	ND		2.5	25	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
loroethene	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
lorofluoromethane	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
l Acetate	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
Chloride	ND		2.5	12	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E
es, Total	ND		2.5	25	µg/Kg	N/A	N/A	2/8/2007	SM3E070207E

urrogate	Surrogate Recovery	Control Limits (%)
Bromofluorobenzene	86.0	60 - 130
bromofluoromethane	109	60 - 130
oluene-d8	94.3	60 - 130

Analyzed by: Mfelix
Reviewed by: EricKum

on Limit = Detection Limit for Reporting.
F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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kland, CA 94612
n: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-011 **Sample ID: BW2-2Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

ctable with SGCU: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/F-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
el	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
or Oil	20		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

e	Surrogate Recovery	Control Limits (%)	
nyl	104	28	129

Analyzed by: Mtran
Reviewed by: MaiChiTu

Limit = Detection Limit for Reporting.
Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Oakland, CA 94612
Attn: David Fagorala

tificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-012 **Sample ID: BW2-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

PA 8260B

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Tetrachloroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hloroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Tetrachloroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloroethene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loropropene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichlorobenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
richloropropane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chlorobenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Trimethylbenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
omo-3-Chloropropane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
omoethane (EDB)	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichlorobenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
loroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hloropropane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
rimethylbenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
lorobenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloropropane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
hlorobenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
xane	ND		5.0	1000	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloropropane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
one (MEK)	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
roethyl-vinyl Ether	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
rotoluene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
one	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orotoluene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
yl-2-Pentanone(MIBK)	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		5.0	500	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
itrile	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
n	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
itrile	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
e	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Chloride	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
obenzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloromethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
dichloromethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oform	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
methane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Disulfide	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
n Tetrachloride	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oform	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
methane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

ion Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Vaste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
ttn: David Fagorala

ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-012 **Sample ID: BW2-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

PA 8260B

r	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Dichloroethene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
chloropropene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
none	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ochloromethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ifluoromethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
opyl Ether	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
zene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
13	ND		5.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
orobutadiene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ne	ND		5.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
anol	ND		5.0	500	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
enzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
butyl Ether	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ene Chloride	ND		5.0	250	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
nzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ltoluene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oroethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
enzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
yl Methyl Ether	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
l (TBA)	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
l Ethyl Ether	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
benzene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oethene	720		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
rofuran	ND		5.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
Dichloroethene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
-Dichloropropene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
ichloro-2-butene	ND		5.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
thene	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
luoromethane	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
te	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
oride	ND		5.0	25	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
otal	ND		5.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

e	*Surrogate Recovery*	*Control Limits (%)*
luorobenzene	81.3	60 - 130
ofluoromethane	105	60 - 130
8	95.1	60 - 130

Analyzed by: Mfelix
Reviewed by: EricKum

mit = Detection Limit for Reporting.
tion and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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...54 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
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Attn: David Fagorala

...ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

...: 53722-012 **Sample ID: BW2-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

...tractable with SGCU: EPA 3630C / EPA 8015B(M)

...meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Diesel	ND		100	250	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
Motor Oil	1400		100	1000	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

...rogate	Surrogate Recovery	Control Limits (%)	
...rphenyl	103	28	129

Analyzed by: Mtran
Reviewed by: MaiChiTu

...ction Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.

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ficate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-013 **Sample ID: BW2-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

A 8260B

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
methylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
moethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
imethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
orobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
otoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trile	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
enzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
orm	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
enzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
orm	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

n Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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n: David Fagorala

ate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-013 **Sample ID: BW2-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

A 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
roethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
bloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
romethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
utadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
uene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	210		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
romethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

Surrogate Recovery		Control Limits (%)		
robenzene	94.5	60	-	130
uoromethane	114	60	-	130
	102	60	-	130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

= Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.

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David Fagorala

ate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

22-013 **Sample ID: BW2-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

le with SGCU: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
e	ND		50	120	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
il	1000		50	500	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

Surrogate Recovery	Control Limits (%)
97.0	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

= Detection Limit for Reporting.
s and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Attn: David Fagorala

rtificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-014 **Sample ID: BW2-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

EPA 8260B

meter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
richloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
richloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
richlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
richlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
romo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
romoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
xane	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
orotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
none	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
yl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nitrile	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
obenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
noform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
methane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
on Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
methane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

on Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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kland, CA 94612
Attn: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-014 **Sample ID: BW2-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

RA 8260B

er	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
chloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
anone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
methane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
difluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ane	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ol	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
dbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
anol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oroethene	6.5		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
s, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

rogate	Surrogate Recovery	Control Limits (%)
omofluorobenzene	95.7	60 - 130
romofluoromethane	114	60 - 130
ene-d8	103	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

ion Limit = Detection Limit for Reporting.
= Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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n: David Fagorala

cate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-014 **Sample ID: BW2-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

table with SGCU: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
sel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
r Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

Surrogate Recovery	Control Limits (%)		
enyl 69.4	28	-	129

Analyzed by: Mtran
Reviewed by: MaiChiTu

= Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
ions and/or Prep Factor includes sample volume adjustments.
Qual = Data Qualifier

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icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-015 **Sample ID: BW2-20Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

A 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
mo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
(MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
de	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
de	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

= Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.

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n: David Fagorala

cate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-015 **Sample ID: BW2-20Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

PA 8260B

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
loroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
one	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
luoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
robutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
zene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
nzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
l (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

gate	Surrogate Recovery	Control Limits (%)	
ofluorobenzene	[illegible]	60 - 130	
omofluoromethane	[illegible]	60 - 130	
e-d8	[illegible]	60 - 130	

Analyzed by: Mfelix
Reviewed by: MaiChiTu

Limit = Detection Limit for Reporting
ilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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kland, CA 94612
tn: David Fagorala

icate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-015 **Sample ID: BW2-20Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

table with SGCU: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
d	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
Oil	ND		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

Surrogate Recovery	Control Limits (%)
yl 98.7	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

Detection Limit for Reporting.
and/or Prep Factor includes sample volume adjustments

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ttn: David Fagorala

ficate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-016 **Sample ID: BW3-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

A 8260B

ter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
etrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
richloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
imethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
romo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
moethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
loropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
dlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ane	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
one (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
rotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
one	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
otoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
yl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
itrile	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
itrile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
fichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
oform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

Limit = Detection Limit for Reporting. ND = Not Detected at or above the Detection Limit.

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

tificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-016 **Sample ID: BW3-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

EPA 8260B

eter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
exanone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
difluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
pyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
3	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
orobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ol	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
dbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
lene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
dbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
anol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
roethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
fluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

rogate	Surrogate Recovery	Control Limits (%)
bfluorobenzene	95.7	60 - 130
nofluoromethane	120	60 - 130
ne-d8	104	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

on Limit = Detection Limit for Reporting.
ution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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P.O.BOX 72305
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Attn: David Fagorala

ificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

: 53722-016 **Sample ID: BW3-5Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

xtractable with SGCU: EPA 3630C / EPA 8015B(M)

er	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
iesel	ND		1.0	2.5	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS
4 mg/Kg Hydrocarbon (C16-C26). No Diesel pattern present.									
lotor Oil	19		1.0	10	mg/Kg	2/5/2007	SD070205AS	2/8/2007	SD070205AS

ate	Surrogate Recovery	Control Limits (%)
rphcnyl	109	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

imit = Detection Limit for Reporting.
ion and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ste Ind. Technologies
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dland, CA 94612
n: David Fagorala

ate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

3722-017 **Sample ID: BW3-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

260B

	Result	Qual	D/F-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
loroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
hloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
pene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
obenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
thane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
zene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
propane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
enzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
zene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
opane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	200	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
pane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
K)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
-Vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
one(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ne	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
ethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
e	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

= Detection Limit for Reporting.
d/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Certificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

Lab #: 53722-017 **Sample ID: BW3-10Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Isobutanol	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Tetrachloroethene	19		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/6/2007	SM6G070206G

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99.6	60 - 130
Dibromofluoromethane	123	60 - 130
Toluene-d8	106	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

2/9/2007 12:04:54 PM - EDComplete

[redacted] Analytical Labs, Inc.
[redacted] Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

[redacted] Technologies
[redacted]
[redacted], CA 94612
[redacted]

[redacted] of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

[redacted] Sample ID: BW3-10Ft Matrix: Solid Sample Date: 2/1/2007 2:30 PM

[redacted]: EPA 3630C / EPA 8015B(M)

	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
[redacted]	ND		1.0	2.5	mg/Kg	2/7/2007	SD070206AS	2/8/2007	SD070206AS
[redacted]	ND		1.0	10	mg/Kg	2/7/2007	SD070206AS	2/8/2007	SD070206AS

Surrogate Recovery	Control Limits (%)
[redacted] 101	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

[redacted] Limit = Detection Limit for Reporting.
[redacted] and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Certificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

Lab #: 53722-018 Sample ID: BW3-15Ft Matrix: Solid Sample Date: 2/1/2007 2:30 PM

VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E07020

Detection Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
Qual = Data Qualifier

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Waste Ind. Technologies
P.O.BOX 72305
Oakland, CA 94612
Attn: David Fagorala

Certificate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

Lab #: 53722-018 **Sample ID: BW3-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

VOCs EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]anone	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]methane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]omethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]fluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]propyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]l Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible] 113	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]chlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ethane	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]panol	ND		1.0	100	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]thalene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]propyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]achloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]tanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]chloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]ene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]chloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]orofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]l Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]yl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E
[illegible]es, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/7/2007	SM3E070207E

Surrogate	Surrogate Recovery	Control Limits (%)
[illegible]-Bromofluorobenzene	84.7	60 - 130
[illegible]bromofluoromethane	104	60 - 130
[illegible]uene-d8	92.6	60 - 130

Analyzed by: Mfelix
Reviewed by: EricKum

[illegible]tion Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
[illegible]F = Dilution and/or Prep Factor includes sample volume adjustments.
Qual = Data Qualifier

tech Analytical Labs, Inc.

Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

[illegible] Ind. Technologies
P.O.BOX 72305
[illegible]land, CA 94612
[illegible]: David Fagorala

ficate of Analysis - Data Report

P.O. Number: Verbal
Samples Received: 02/05/2007
Sample Collected by: Client

53722-018 **Sample ID: BW3-15Ft** **Matrix:** Solid **Sample Date:** 2/1/2007 2:30 PM

[illegible] with SGCU: EPA 3630C / EPA 8015B(M)

[illegible]	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
[illegible]Diesel	ND		10	25	mg/Kg	2/7/2007	SD070206AS	2/8/2007	SD070206AS
[illegible] Oil	170		10	100	mg/Kg	2/7/2007	SD070206AS	2/8/2007	SD070206AS

[illegible]	Surrogate Recovery	Control Limits (%)
[illegible]ctacosane	110	28 - 129

Analyzed by: Mtran
Reviewed by: MaiChiTu

[illegible]on Limit = Detection Limit for Reporting.
[illegible] = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Method Blank - Solid - VOCs: EPA 8260B

QC Batch ID: SM3E070207E

QC Batch Analysis Date: 2/7/2007

Validated by: ErickKum - 02/08/07

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,1-Trichloroethane	ND	1	5.0	µg/Kg
1,1,2,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,2-Trichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethene	ND	1	5.0	µg/Kg
1,1-Dichloropropene	ND	1	5.0	µg/Kg
1,2,3-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,3-Trichloropropane	ND	1	5.0	µg/Kg
1,2,4-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,4-Trimethylbenzene	ND	1	5.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/Kg
1,2-Dibromoethane (EDB)	ND	1	5.0	µg/Kg
1,2-Dichlorobenzene	ND	1	5.0	µg/Kg
1,2-Dichloroethane	ND	1	5.0	µg/Kg
1,2-Dichloropropane	ND	1	5.0	µg/Kg
1,3,5-Trimethylbenzene	ND	1	5.0	µg/Kg
1,3-Dichlorobenzene	ND	1	5.0	µg/Kg
1,3-Dichloropropane	ND	1	5.0	µg/Kg
1,4-Dichlorobenzene	ND	1	5.0	µg/Kg
1,4-Dioxane	ND	1	200	µg/Kg
2,2-Dichloropropane	ND	1	5.0	µg/Kg
2-Butanone (MEK)	ND	1	40	µg/Kg
2-Chloroethyl-vinyl Ether	ND	1	5.0	µg/Kg
2-Chlorotoluene	ND	1	5.0	µg/Kg
2-Hexanone	ND	1	40	µg/Kg
4-Chlorotoluene	ND	1	5.0	µg/Kg
4-Methyl-2-Pentanone(MIBK)	ND	1	40	µg/Kg
Acetone	ND	1	100	µg/Kg
Acetonitrile	ND	1	40	µg/Kg
Acrolein	ND	1	5.0	µg/Kg
Acrylonitrile	ND	1	5.0	µg/Kg
Benzene	ND	1	5.0	µg/Kg
Benzyl Chloride	ND	1	5.0	µg/Kg
Bromobenzene	ND	1	5.0	µg/Kg
Bromochloromethane	ND	1	5.0	µg/Kg
Bromodichloromethane	ND	1	5.0	µg/Kg
Bromoform	ND	1	5.0	µg/Kg
Bromomethane	ND	1	5.0	µg/Kg
Carbon Disulfide	ND	1	5.0	µg/Kg
Carbon Tetrachloride	ND	1	5.0	µg/Kg
Chlorobenzene	ND	1	5.0	µg/Kg
Chloroethane	ND	1	5.0	µg/Kg
Chloroform	ND	1	5.0	µg/Kg
Chloromethane	ND	1	5.0	µg/Kg
cis-1,2-Dichloroethene	ND	1	5.0	µg/Kg
cis-1,3-Dichloropropene	ND	1	5.0	µg/Kg
Dibromochloromethane	ND	1	40	µg/Kg
Dibromomethane	ND	1	5.0	µg/Kg
Dichlorodifluoromethane	ND	1	5.0	µg/Kg

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Method Blank - Solid - VOCs: EPA 8260B
QC Batch ID: SM3E070207E
QC Batch Analysis Date: 2/7/2007

Validated by: EricKum - 02/08/07

Parameter	Result	DF	PQLR	Units
Diisopropyl Ether	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Freon 113	ND	1	10	µg/Kg
Hexachlorobutadiene	ND	1	5.0	µg/Kg
Iodomethane	ND	1	10	µg/Kg
Isopropanol	ND	1	100	µg/Kg
Isopropylbenzene	ND	1	5.0	µg/Kg
Methylene Chloride	ND	1	50	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Naphthalene	ND	1	5.0	µg/Kg
n-Butylbenzene	ND	1	5.0	µg/Kg
n-Propylbenzene	ND	1	5.0	µg/Kg
Pentachloroethane	ND	1	5.0	µg/Kg
p-Isopropyltoluene	ND	1	5.0	µg/Kg
sec-Butylbenzene	ND	1	5.0	µg/Kg
Styrene	ND	1	5.0	µg/Kg
t-Amyl Methyl Ether	ND	1	5.0	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
t-Butyl Ethyl Ether	ND	1	5.0	µg/Kg
tert-Butylbenzene	ND	1	5.0	µg/Kg
Tetrachloroethene	ND	1	5.0	µg/Kg
Tetrahydrofuran	ND	1	40	µg/Kg
Toluene	ND	1	5.0	µg/Kg
trans-1,2-Dichloroethene	ND	1	5.0	µg/Kg
trans-1,3-Dichloropropene	ND	1	5.0	µg/Kg
trans-1,4-Dichloro-2-butene	ND	1	10	µg/Kg
Trichloroethene	ND	1	5.0	µg/Kg
Trichlorofluoromethane	ND	1	5.0	µg/Kg
Vinyl Acetate	ND	1	5.0	µg/Kg
Vinyl Chloride	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
Fluorobenzene	87.5	60 - 130
Bromofluoromethane	100	60 - 130
Toluene-d8	93.1	60 - 130

Entech Analytical Labs, Inc.

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LCS / LCSD - Solid - VOCs: EPA 8260B
QC Batch ID: SM3E070207E
QC Batch ID Analysis Date: 2/7/2007

Reviewed by: EricKum - 02/08/07

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	39.5	µg/Kg	98.8	70 - 135
Benzene	<5.0	40	45.6	µg/Kg	114	70 - 135
Chlorobenzene	<5.0	40	43.7	µg/Kg	109	70 - 135
Methyl-t-butyl Ether	<5.0	40	43.3	µg/Kg	108	70 - 135
Toluene	<5.0	40	43.3	µg/Kg	108	70 - 135
Trichloroethene	<5.0	40	44.2	µg/Kg	110	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	90.6	60 - 130
Dibromofluoromethane	99.3	60 - 130
Toluene-d8	91.0	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	43.2	µg/Kg	108	8.9	30.0	70 - 135
Benzene	<5.0	40	46.5	µg/Kg	116	2.0	30.0	70 - 135
Chlorobenzene	<5.0	40	43.5	µg/Kg	109	0.46	30.0	70 - 135
Methyl-t-butyl Ether	<5.0	40	42.6	µg/Kg	106	1.6	30.0	70 - 135
Toluene	<5.0	40	43.9	µg/Kg	110	1.4	30.0	70 - 135
Trichloroethene	<5.0	40	43.0	µg/Kg	108	2.8	30.0	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	90.1	60 - 130
Dibromofluoromethane	99.2	60 - 130
Toluene-d8	88.8	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - VOCs: EPA 8260B

QC Batch ID: SM6G070206G

QC Batch Analysis Date: 2/6/2007

Validated by: EricKum - 02/06/07

Parameter	Result	DF	PQLR	Units
1,1,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1-Trichloroethane	ND	1	5.0	µg/Kg
2,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,2-Trichloroethane	ND	1	5.0	µg/Kg
-Dichloroethane	ND	1	5.0	µg/Kg
-Dichloroethene	ND	1	5.0	µg/Kg
-Dichloropropene	ND	1	5.0	µg/Kg
,3-Trichlorobenzene	ND	1	5.0	µg/Kg
2,3-Trichloropropane	ND	1	5.0	µg/Kg
,4-Trichlorobenzene	ND	1	5.0	µg/Kg
,4-Trimethylbenzene	ND	1	5.0	µg/Kg
2-Dibromo-3-Chloropropane	ND	1	5.0	µg/Kg
-Dibromoethane (EDB)	ND	1	5.0	µg/Kg
-Dichlorobenzene	ND	1	5.0	µg/Kg
2-Dichloroethane	ND	1	5.0	µg/Kg
-Dichloropropane	ND	1	5.0	µg/Kg
3,5-Trimethylbenzene	ND	1	5.0	µg/Kg
-Dichlorobenzene	ND	1	5.0	µg/Kg
-Dichloropropane	ND	1	5.0	µg/Kg
4-Dichlorobenzene	ND	1	5.0	µg/Kg
-Dioxane	ND	1	200	µg/Kg
-Dichloropropane	ND	1	5.0	µg/Kg
-Butanone (MEK)	ND	1	40	µg/Kg
hloroethyl-vinyl Ether	ND	1	5.0	µg/Kg
-Chlorotoluene	ND	1	5.0	µg/Kg
exanone	ND	1	40	µg/Kg
hlorotoluene	ND	1	5.0	µg/Kg
-Methyl-2-Pentanone(MIBK)	ND	1	40	µg/Kg
tone	ND	1	100	µg/Kg
tonitrile	ND	1	40	µg/Kg
blein	ND	1	5.0	µg/Kg
lonitrile	ND	1	5.0	µg/Kg
nzene	ND	1	5.0	µg/Kg
zyl Chloride	ND	1	5.0	µg/Kg
mobenzene	ND	1	5.0	µg/Kg
romochloromethane	ND	1	5.0	µg/Kg
modichloromethane	ND	1	5.0	µg/Kg
moform	ND	1	5.0	µg/Kg
thomethane	ND	1	5.0	µg/Kg
on Disulfide	ND	1	5.0	µg/Kg
rbon Tetrachloride	ND	1	5.0	µg/Kg
robenzene	ND	1	5.0	µg/Kg
roethane	ND	1	5.0	µg/Kg
loroform	ND	1	5.0	µg/Kg
romethane	ND	1	5.0	µg/Kg
2-Dichloroethene	ND	1	5.0	µg/Kg
-1,3-Dichloropropene	ND	1	5.0	µg/Kg
-Hexanone	ND	1	40	µg/Kg
omochloromethane	ND	1	5.0	µg/Kg
omomethane	ND	1	5.0	µg/Kg
ichlorodifluoromethane	ND	1	5.0	µg/Kg

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - VOCs: EPA 8260B

QC Batch ID: SM6G070206G

QC Batch Analysis Date: 2/6/2007

Validated by: EricKum - 02/06/07

Parameter	Result	DF	PQLR	Units
Diisopropyl Ether	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Freon 113	ND	1	10	µg/Kg
Hexachlorobutadiene	ND	1	5.0	µg/Kg
Isobutanol	ND	1	10	µg/Kg
Isopropanol	ND	1	100	µg/Kg
Isopropylbenzene	ND	1	5.0	µg/Kg
Methylene Chloride	ND	1	50	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Naphthalene	ND	1	5.0	µg/Kg
n-Butylbenzene	ND	1	5.0	µg/Kg
n-Propylbenzene	ND	1	5.0	µg/Kg
Pentachloroethane	ND	1	5.0	µg/Kg
p-isopropyltoluene	ND	1	5.0	µg/Kg
sec-Butylbenzene	ND	1	5.0	µg/Kg
Styrene	ND	1	5.0	µg/Kg
tert-Amyl Methyl Ether	ND	1	5.0	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
tert-Butyl Ethyl Ether	ND	1	5.0	µg/Kg
tert-Butylbenzene	ND	1	5.0	µg/Kg
Tetrachloroethene	ND	1	5.0	µg/Kg
Tetrahydrofuran	ND	1	40	µg/Kg
Toluene	ND	1	5.0	µg/Kg
trans-1,2-Dichloroethene	ND	1	5.0	µg/Kg
trans-1,3-Dichloropropene	ND	1	5.0	µg/Kg
trans-1,4-Dichloro-2-butene	ND	1	10	µg/Kg
Trichloroethene	ND	1	5.0	µg/Kg
Trichlorofluoromethane	ND	1	5.0	µg/Kg
Vinyl Acetate	ND	1	5.0	µg/Kg
Vinyl Chloride	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	100	60 - 130
Dibromofluoromethane	104	60 - 130
Toluene-d8	103	60 - 130

Entech Analytical Labs, Inc.

[redacted] Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

[redacted] - Solid - VOCs: EPA 8260B

[redacted] ID: SM6G070206G

[redacted] ID Analysis Date: 2/6/2007

Reviewed by: EricKum - 02/06/07

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	37.3	µg/Kg	93.2	70 - 135
Benzene	<5.0	40	42.6	µg/Kg	106	70 - 135
Chlorobenzene	<5.0	40	45.1	µg/Kg	113	70 - 135
Methyl-t-butyl Ether	<5.0	40	37.1	µg/Kg	92.8	70 - 135
Toluene	<5.0	40	42.0	µg/Kg	105	70 - 135
Trichloroethene	<5.0	40	44.9	µg/Kg	112	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	105.0	60 - 130
Dibromofluoromethane	106.0	60 - 130
Toluene-d8	103.0	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	32.4	µg/Kg	81.0	14	30.0	70 - 135
Benzene	<5.0	40	38.8	µg/Kg	97.0	9.3	30.0	70 - 135
Chlorobenzene	<5.0	40	40.8	µg/Kg	102	10	30.0	70 - 135
Methyl-t-butyl Ether	<5.0	40	33.9	µg/Kg	84.8	9.0	30.0	70 - 135
Toluene	<5.0	40	37.8	µg/Kg	94.5	11	30.0	70 - 135
Trichloroethene	<5.0	40	40.1	µg/Kg	100	11	30.0	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	103.0	60 - 130
Dibromofluoromethane	102.0	60 - 130
Toluene-d8	104.0	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Solid - VOCs: EPA 8260B

QC Batch ID: SM6G070206G

Reviewed by: MaiChiTu - 02/07/07

QC Batch ID Analysis Date: 2/6/2007

MS Sample Spiked: 53722-006

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
1,1-Dichloroethene	ND	40	36.0	µg/Kg	2/6/2007	90.0	70 - 135
Benzene	ND	40	45.7	µg/Kg	2/6/2007	114	70 - 135
Chlorobenzene	ND	40	43.4	µg/Kg	2/6/2007	108	70 - 135
Methyl-t-butyl Ether	ND	40	34.4	µg/Kg	2/6/2007	86.0	70 - 135
Toluene	ND	40	44.1	µg/Kg	2/6/2007	110	70 - 135
Trichloroethene	ND	40	47.7	µg/Kg	2/6/2007	119	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	107.0	60 - 130
Dibromofluoromethane	116.0	60 - 130
Toluene-d8	104.0	60 - 130

MSD Sample Spiked: 53722-006

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	ND	40	38.7	µg/Kg	2/6/2007	96.8	7.2	30.0	70 - 135
Benzene	ND	40	48.3	µg/Kg	2/6/2007	121	5.5	30.0	70 - 135
Chlorobenzene	ND	40	46.5	µg/Kg	2/6/2007	116	6.9	30.0	70 - 135
Methyl-t-butyl Ether	ND	40	37.4	µg/Kg	2/6/2007	93.5	8.4	30.0	70 - 135
Toluene	ND	40	46.9	µg/Kg	2/6/2007	117	6.2	30.0	70 - 135
Trichloroethene	ND	40	50.9	µg/Kg	2/6/2007	127	6.5	30.0	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	108.0	60 - 130
Dibromofluoromethane	116.0	60 - 130
Toluene-d8	105.0	60 - 130

ntech Analytical Labs, Inc.

334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

hod Blank - Liquid - VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for astewater

Batch ID: WM1070206

Validated by: MaiChiTu - 02/07/07

Batch Analysis Date: 2/6/2007

meter	Result	DF	PQLR	Units
2-Tetrachloroethane	ND	1	0.50	µg/L
1-Trichloroethane	ND	1	0.50	µg/L
2-Tetrachloroethane	ND	1	0.50	µg/L
-Trichloroethane	ND	1	0.50	µg/L
-Dichloroethane	ND	1	0.50	µg/L
Dichloroethene	ND	1	0.50	µg/L
Dichloropropene	ND	1	0.50	µg/L
3-Trichlorobenzene	ND	1	5.0	µg/L
-Trichloropropane	ND	1	5.0	µg/L
4-Trichlorobenzene	ND	1	5.0	µg/L
-Trimethylbenzene	ND	1	5.0	µg/L
Dibromo-3-Chloropropane	ND	1	5.0	µg/L
2-Dibromoethane (EDB)	ND	1	0.50	µg/L
Dichlorobenzene	ND	1	0.50	µg/L
Dichloroethane	ND	1	0.50	µg/L
Dichloropropane	ND	1	0.50	µg/L
-Trimethylbenzene	ND	1	5.0	µg/L
3-Dichlorobenzene	ND	1	0.50	µg/L
Dichloropropane	ND	1	0.50	µg/L
Dichlorobenzene	ND	1	0.50	µg/L
4-Dioxane	ND	1	50	µg/L
Dichloropropane	ND	1	0.50	µg/L
2-Butanone (MEK)	ND	1	20	µg/L
hloroethyl-vinyl Ether	ND	1	5.0	µg/L
hlorotoluene	ND	1	5.0	µg/L
2-Hexanone	ND	1	20	µg/L
hlorotoluene	ND	1	5.0	µg/L
ethyl-2-Pentanone(MIBK)	ND	1	20	µg/L
Acetone	ND	1	20	µg/L
tonitrile	ND	1	5.0	µg/L
Acrolein	ND	1	5.0	µg/L
Acrylonitrile	ND	1	5.0	µg/L
zene	ND	1	0.50	µg/L
Benzyl Chloride	ND	1	5.0	µg/L
mobenzene	ND	1	0.50	µg/L
mochloromethane	ND	1	0.50	µg/L
Bromodichloromethane	ND	1	0.50	µg/L
moform	ND	1	0.50	µg/L
Bromomethane	ND	1	0.50	µg/L
Carbon Disulfide	ND	1	0.50	µg/L
bon Tetrachloride	ND	1	0.50	µg/L
Chlorobenzene	ND	1	0.50	µg/L
oroethane	ND	1	0.50	µg/L
oroform	ND	1	0.50	µg/L
Chloromethane	ND	1	0.50	µg/L
1,2-Dichloroethene	ND	1	0.50	µg/L
1,3-Dichloropropene	ND	1	0.50	µg/L
Cyclohexanone	ND	1	20	µg/L
romochloromethane	ND	1	0.50	µg/L
Dibromomethane	ND	1	0.50	µg/L

Entech Analytical Labs, Inc.

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Method Blank - Liquid - VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Validated by: MaiChiTu - 02/07/07

QC Batch ID: WM1070206

QC Batch Analysis Date: 2/6/2007

Parameter	Result	DF	PQLR	Units
Dichlorodifluoromethane	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Freon 113	ND	1	5.0	µg/L
Hexachlorobutadiene	ND	1	5.0	µg/L
Iodomethane	ND	1	5.0	µg/L
Isopropanol	ND	1	20	µg/L
Isopropylbenzene	ND	1	1.0	µg/L
Methylene Chloride	ND	1	20	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
Naphthalene	ND	1	5.0	µg/L
n-Butylbenzene	ND	1	5.0	µg/L
n-Propylbenzene	ND	1	5.0	µg/L
Pentachloroethane	ND	1	0.50	µg/L
p-Isopropyltoluene	ND	1	5.0	µg/L
sec-Butylbenzene	ND	1	5.0	µg/L
Styrene	ND	1	0.50	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
tert-Butylbenzene	ND	1	5.0	µg/L
Tetrachloroethene	ND	1	0.50	µg/L
Tetrahydrofuran	ND	1	20	µg/L
Toluene	ND	1	0.50	µg/L
trans-1,2-Dichloroethene	ND	1	0.50	µg/L
trans-1,3-Dichloropropene	ND	1	0.50	µg/L
trans-1,4-Dichloro-2-butene	ND	1	5.0	µg/L
Trichloroethene	ND	1	0.50	µg/L
Trichlorofluoromethane	ND	1	0.50	µg/L
Vinyl Acetate	ND	1	5.0	µg/L
Vinyl Chloride	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	100	70 - 125
Dibromofluoromethane	91.8	70 - 125
Toluene-d8	106	70 - 125

Method Blank - Liquid - TPH-Purgeable: GC/MS

Validated by: MaiChiTu - 02/07/07

QC Batch ID: WM1070206

QC Batch Analysis Date: 2/6/2007

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	25	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	90.4	60 - 130
Dibromofluoromethane	96.0	60 - 130
Toluene-d8	98.5	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM1070206

Reviewed by: MaiChiTu - 02/07/07

QC Batch ID Analysis Date: 2/6/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	21.2	µg/L	106	70 - 130
Benzene	<0.50	20	19.5	µg/L	97.5	70 - 130
Chlorobenzene	<0.50	20	20.9	µg/L	104	70 - 130
Methyl-t-butyl Ether	<1.0	20	24.6	µg/L	123	70 - 130
Toluene	<0.50	20	20.2	µg/L	101	70 - 130
Trichloroethene	<0.50	20	21.2	µg/L	106	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	90.6	60 - 130
Dibromofluoromethane	104.0	60 - 130
Toluene-d8	97.7	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	21.6	µg/L	108	1.9	25.0	70 - 130
Benzene	<0.50	20	19.6	µg/L	98.0	0.51	25.0	70 - 130
Chlorobenzene	<0.50	20	21.1	µg/L	106	0.95	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	21.7	µg/L	108	13	25.0	70 - 130
Toluene	<0.50	20	20.0	µg/L	100	1.0	25.0	70 - 130
Trichloroethene	<0.50	20	21.8	µg/L	109	2.8	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95.8	60 - 130
Dibromofluoromethane	98.4	60 - 130
Toluene-d8	95.4	60 - 130

LCS / LCSD - Liquid - TPH-Purgeable: GC/MS

QC Batch ID: WM1070206

Reviewed by: MaiChiTu - 02/07/07

QC Batch ID Analysis Date: 2/6/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	110	µg/L	87.8	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	82.2	60 - 130
Dibromofluoromethane	95.7	60 - 130
Toluene-d8	105.0	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	109	µg/L	87.2	0.64	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	92.5	60 - 130
Dibromofluoromethane	97.7	60 - 130
Toluene-d8	98.5	60 - 130

ntech Analytical Labs, Inc.

334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

S / MSD - Liquid - VOCs: EPA 5030C / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Reviewed by: MaiChiTu - 02/08/07

Batch ID: WM1070206

Batch ID Analysis Date: 2/6/2007

Sample Spiked: 53722-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
1,1-Dichloroethene	ND	20	16.4	µg/L	2/6/2007	82.0	70 - 130
Benzene	ND	20	17.6	µg/L	2/6/2007	88.0	70 - 130
Chlorobenzene	ND	20	19.2	µg/L	2/6/2007	96.0	70 - 130
Methyl-t-butyl Ether	ND	20	16.2	µg/L	2/6/2007	81.0	70 - 130
Toluene	ND	20	17.3	µg/L	2/6/2007	86.5	70 - 130
Trichloroethene	ND	20	19.3	µg/L	2/6/2007	96.5	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	96.7	60 - 130
Dibromofluoromethane	90.9	60 - 130
Toluene-d8	95.8	60 - 130

MSD Sample Spiked: 53722-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	ND	20	17.8	µg/L	2/6/2007	89.0	8.2	25.0	70 - 130
Benzene	ND	20	18.1	µg/L	2/6/2007	90.5	2.8	25.0	70 - 130
Chlorobenzene	ND	20	19.3	µg/L	2/6/2007	96.5	0.52	25.0	70 - 130
Methyl-t-butyl Ether	ND	20	17.3	µg/L	2/6/2007	86.5	6.6	25.0	70 - 130
Toluene	ND	20	17.8	µg/L	2/6/2007	89.0	2.8	25.0	70 - 130
Trichloroethene	ND	20	19.6	µg/L	2/6/2007	98.0	1.5	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	97.4	60 - 130
Dibromofluoromethane	90.8	60 - 130
Toluene-d8	96.7	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - TPH-Extractable with SGCU: EPA 3510C / EPA 3630C / EPA 8015B(M)

QC/Prep Batch ID: WD070205AS

QC/Prep Date: 2/5/2007

Validated by: ECunniffe - 02/07/07

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L
TPH as Motor Oil	ND	1	200	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	79.2	16 - 137

LCS / LCSD - Liquid - TPH-Extractable with SGCU: EPA 3510C / EPA 3630C / EPA 8015B(M)

QC Batch ID: WD070205AS

QC/Prep Date: 2/5/2007

Reviewed by: ECunniffe - 02/07/07

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	945	µg/L	94.5	35 - 109
TPH as Motor Oil	<200	1000	945	µg/L	94.5	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	88.6	16 - 137

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	915	µg/L	91.5	3.2	25.0	35 - 109
TPH as Motor Oil	<200	1000	951	µg/L	95.1	0.70	25.0	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	84.0	16 - 137

Stech Analytical Labs, Inc.

4 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

od Blank - Solid - TPH-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

p Batch ID: SD070205AS

p Date: 2/5/2007

Validated by: ECunniffe - 02/06/07

	Result	DF	PQLR	Units
esel	ND	1	2.5	mg/Kg
Motor Oil	ND	1	10	mg/Kg

for Blank % Recovery	Control Limits
74.9	28 - 129

CSD - Solid - TPH-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

h ID: SD070205AS

Date: 2/5/2007

Reviewed by: ECunniffe - 02/06/07

	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
sel	<2.5	50	35.8	mg/Kg	71.7	45 - 140
Motor Oil	<10	50	49.8	mg/Kg	99.6	45 - 140

% Recovery	Control Limits
83.3	28 - 129

	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
sel	<2.5	50	44.1	mg/Kg	88.1	21	30.0	45 - 140
tor Oil	<10	50	50.4	mg/Kg	101	1.3	30.0	45 - 140

% Recovery	Control Limits
97.9	28 - 129

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - TPH-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

QC/Prep Batch ID: SD070206AS

Validated by: ECunniffe - 02/08/07

QC/Prep Date: 2/7/2007

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	2.5	mg/Kg
TPH as Motor Oil	ND	1	10	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	83.4	28 - 129

LCS / LCSD - Solid - TPH-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

QC Batch ID: SD070206AS

Reviewed by: ECunniffe - 02/08/07

QC/Prep Date: 2/7/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<2.5	50	34.8	mg/Kg	69.6	45 - 140
TPH as Motor Oil	<10	50	42.8	mg/Kg	85.5	45 - 140

Surrogate	% Recovery	Control Limits
o-Terphenyl	84.6	28 - 129

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<2.5	50	44.5	mg/Kg	89.0	24	30.0	45 - 140
TPH as Motor Oil	<10	50	45.2	mg/Kg	90.4	5.5	30.0	45 - 140

Surrogate	% Recovery	Control Limits
o-Terphenyl	96.0	28 - 129

Entech Analytical Labs, Inc. Chain of Custody / Analysis Request

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax
ELAP No. 2346

Attention to: David	Phone No.: 510-258-5167	Purchase Order No.:	Invoice to: (If Different)	Phone:
Company Name: WIT	Fax No.: 510 317 5709	Project No. / Name:	Company:	
Mailing Address: P O Box 72305	Email Address: wasteit@aol.com		Billing Address: (If Different)	
City: OAKLAND	State: CA Zip Code: 94612	Project Location:	City:	State: Zip:

Entech Order ID:

EDF ☐ Global ID: 53722

Turn Around Time
☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ 4 Day ☐ 5 Day
☐ 10 Day

Sample Information
Sampler: JH

Circle Applicable: EPA 8260B Full List (circled); 8260 Petroleum: List includes: Gas, BTEX, MTBE, ETBE, TBA, TAME, DIPE, 1,2-DCA, EDB (* Gas JH); EPA 8270: Base/Neutral/Acid Organics; 8270 Full List; PAHs Only; PAHs - SIM; Pesticides-8081; PCBs - 8082; TPH Extractable: Diesel, Motor Oil, Other w/ Si-Gel Cleanup (circled); TPH Gas-BTEX-MTBE by EPA 8015/8021B (circled); Metals - Circle Below: Total, Dissolved, STLC, TCLP

Client ID	Field Point Name (On Sample Labels)	Date	Time	Entech Lab. No.	Matrix	No. of Containers	EPA 8260B Full List	TPH Extractable	Remarks Instructions
BW2-1ft	2/1/07	1-3-07	2:30	010	S		X	X	
BW2-2ft				011	S		|	|	
BW2-5ft				012	S		|	|	
BW2-10ft				013	S		|	|	
BW2-15ft				014	S		|	|	
BW2-20ft				015	S		|	|	
BW3-5ft				016	S		|	|	
BW3-10ft				017	S		|	|	
BW3-15ft				018	S		|	|	
BW2-25ft				019					Hold *
BW1-24ft				020					Hold *

4 Day TAT

Relinquished by:	Received by:	Date: 2/5/07	Time: 1300
Relinquished by:	Received by:	Date:	Time:
Relinquished by:	Received by:	Date:	Time:

Lab Use: * Hold pending results of other samples

Metals: Al, As, Sb, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Tl, Sn, Ti, Zn, V
☐ Plating ☐ LUFT-5 ☐ RCRA-8 ☐ PPM-13 ☐ CAM-17

If any N's, Explain:

APPENDIX D

PHOTOGRAPH OF INJECTION POINTS AT KITTY'S CLEANER

Effervesces from chemical oxidation in soil at Kitty's Cleaners

Ollyman's staff applying chemicals at Injection point

Injection points at three feet apart at Kitty Cleaner

Points at three feet apart for chemical injection (Fenton's reaction)

APPENDIX E

ENVIRONMENTAL SCREENING LEVELS

SF Bay RWQCB R02

Table A. Environmental Screening Levels (ESLs)
Shallow Soils (≤3m bgs)
Groundwater IS Current or Potential Source of Drinking Water

Chemical	[1]Shallow Soil		[3]Groundwater (ug/L)
	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
Naphthalene	1.3E+00	2.8E+00	1.7E+01
Nickel	1.5E+02	1.5E+02	1.0E+02
Pentachlorophenol	3.0E+00	5.0E+00	1.0E+00
Perchlorate	1.1E+01	1.3E+02	6.0E+00
Phenanthrene	4.0E+01	4.0E+01	2.1E+02
Phenol	7.6E-02	7.6E-02	5.0E+00
Polychlorinated biphenyls (PCBs)	8.9E-02	3.0E-01	5.0E-01
Pyrene	5.0E+02	1.0E+03	6.8E+01
Selenium	1.0E+01	1.0E+01	5.0E+01
Silver	2.0E+01	4.0E+01	3.5E+01
Styrene	1.5E+00	1.5E+00	1.0E+01
tert-Butyl alcohol	1.0E-06		
1,1,1,2-Tetrachloroethane	2.4E-02	2.4E-02	1.3E+00
1,1,2,2-Tetrachloroethane	1.8E-02	1.8E-02	1.0E+00
Tetrachloroethene	3.4E-01	7.0E-01	5.0E+00
Thallium	1.2E+00	1.5E+01	2.0E+00
Toluene	2.9E+00	2.9E+00	4.0E+01
Toxaphene	4.6E-01	1.8E+00	3.0E+00
TPH (gasolines)	8.3E+01	8.3E+01	1.0E+02
TPH (middle distillates)	8.3E+01	8.3E+01	1.0E+02
TPH (residual fuels)	4.1E+02	2.5E+03	1.0E+02
1,2,4-Trichlorobenzene	1.5E+00	1.5E+00	5.0E+00
1,1,1-Trichloroethane	2.5E+01	2.5E+01	2.0E+02
1,1,2-Trichloroethane	7.0E-02	7.0E-02	5.0E+00
Trichloroethene	4.6E-01	4.6E-01	5.0E+00
2,4,5-Trichlorophenol	3.2E+00	3.2E+00	2.0E+02
2,4,6-Trichlorophenol	2.3E-01	2.3E-01	7.0E-01
Vanadium	1.5E+01	1.9E+02	1.5E+01
Vinyl chloride	2.1E-02	4.7E-02	5.0E-01
Xylenes	2.3E+00	2.3E+00	2.0E+01
Zinc	6.0E+02	6.0E+02	5.0E+03

Notes:

1. Shallow soils defined as soils less than or equal to 3 meters (approximately 10 feet) below ground surface.
2. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
3. Assumes potential discharge of groundwater into a freshwater, marine or estuary surface water system.

Soil ESLs intended to address direct-exposure, groundwater protection, ecologic (urban areas) and nuisance concerns under noted land-use scenarios. **Soil gas data should be collected for additional evaluation of potential indoor-air impacts at sites with significant areas of VOC-contaminated soil.**

Groundwater ESLs intended to be address drinking water, surface water, indoor-air and nuisance concerns. **Use in conjunction with soil gas screening levels to more closely evaluate potential impacts to indoor-air if groundwater screening levels for this concern approached or exceeded.**

Aquatic habitat goals for bioaccumulation concerns not considered in selection of groundwater goals.

Soil and water ESLs for ethanol based on gross contamination concerns.

TPH - Total Petroleum Hydrocarbons. TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.).

Table C. Environmental Screening Levels (ESLs)
Deep Soils (>3m bgs)
Groundwater IS a Current or Potential Source of Drinking Water

Chemical	[1]Deep Soil		[3]Groundwater (ug/L)
	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
Naphthalene	3.4E+00	3.4E+00	1.7E+01
Nickel	2.6E+02	2.6E+02	1.0E+02
Pentachlorophenol	9.9E+01	9.9E+01	1.0E+00
Perchlorate	5.0E+02	5.0E+02	6.0E+00
Phenanthrene	4.9E+02	4.9E+02	2.1E+02
Phenol	7.6E-02	7.6E-02	5.0E+00
Polychlorinated biphenyls (PCBs)	3.4E+00	3.4E+00	5.0E-01
Pyrene	1.0E+03	1.2E+03	6.8E+01
Selenium	2.5E+03	3.6E+03	5.0E+01
Silver	2.5E+03	3.6E+03	3.5E+01
Styrene	1.5E+00	1.5E+00	1.0E+01
tert-Butyl alcohol			
1,1,1,2-Tetrachloroethane	2.4E-02	2.4E-02	1.3E+00
1,1,2,2-Tetrachloroethane	1.8E-02	1.8E-02	1.0E+00
Tetrachloroethene	7.0E-01	7.0E-01	5.0E+00
Thallium	5.7E+01	5.7E+01	2.0E+00
Toluene	2.9E+00	2.9E+00	4.0E+01
Toxaphene	6.4E+00	6.4E+00	3.0E+00
TPH (gasolines)	8.3E+01	8.3E+01	1.0E+02
TPH (middle distillates)	8.3E+01	8.3E+01	1.0E+02
TPH (residual fuels)	5.0E+03	5.0E+03	1.0E+02
1,2,4-Trichlorobenzene	1.5E+00	1.5E+00	5.0E+00
1,1,1-Trichloroethane	2.5E+01	2.5E+01	2.0E+02
1,1,2-Trichloroethane	7.0E-02	7.0E-02	5.0E+00
Trichloroethene	4.6E-01	4.6E-01	5.0E+00
2,4,5-Trichlorophenol	3.2E+00	3.2E+00	2.0E+02
2,4,6-Trichlorophenol	2.3E-01	2.3E-01	7.0E-01
Vanadium	7.1E+02	7.1E+02	1.5E+01
Vinyl chloride	8.5E-02	8.5E-02	5.0E-01
Xylenes	2.3E+00	2.3E+00	2.0E+01
Zinc	2.5E+03	5.0E+03	5.0E+03

Notes:

1. Deep soils defined as soils greater than 3 meters (approximately 10 feet) below ground surface.
2. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
3. Assumes potential discharge of groundwater into a freshwater, marine or estuary surface water system.

Soil ESLs intended to address human health, groundwater protection and nuisance concerns under a construction/trench worker exposure scenario and noted land-use scenarios. **Soil gas data should be collected for additional evaluation of potential indoor-air impacts at sites with significant areas of VOC-contaminated soil.**

Groundwater ESLs intended to be address drinking water, surface water, indoor-air and nuisance concerns. **Use in conjunction with soil gas screening levels to more closely evaluate potential impacts to indoor-air if groundwater screening levels for this concern approached or exceeded.**

Aquatic habitat goals for bioaccumulation concerns not considered in selection of groundwater goals.

Soil and water ESLs for ethanol based on gross contamination concerns (see Appendix 1, Chapter 5 and related tables).

TPH -Total Petroleum Hydrocarbons. TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.).

California Regional Water Quality Control Board
San Francisco Bay Region

Linda S. Adams
Secretary for Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
http://www. waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

Date: October 30, 2009
File No. 41S0177 (mej)

Mr. & Mrs. M. Karwash
910 Newbridge Street
East Palo Alto, CA

SUBJECT: No Further Action, Kitty's Cleaners, 910 & 904 Newbridge Street, East Palo Alto, San Mateo County

Dear Mr and Mrs. Karwash:

This letter confirms the completion of site investigation and remedial action for the pollutant releases at the subject site.

Site investigations conducted in 2007 and 2008 detected the presence of tetrachloroethene (PCE) in soil at the subject properties at a maximum concentration level of 2,700 ug/kg. The remedial investigation defined the extent of soil impacts and also determined that groundwater had not been significantly affected. It is noted that the highest concentration detected in groundwater was 6.4 ug/l, only slightly above the Maximum Contaminant Level of 5 ug/l. Based on the data collected at the site, a remedial program was designed and implemented to reduce the level of PCE in soil to levels less than the Water Board's Environmental Screening Levels (ESLs) for residential use of 370 ug/kg.

The remedial program consisted of using a Fenton's Reaction process (hydrogen peroxide and sulfuric acid) via in-situ injections. A total of 80 injection points ranging in depths from 1-5 feet below grade and spaced at approximate 3 foot intervals were installed at the site. Three specific areas were targeted as part of the remedial program: a) former waste chemical storage area; b) the former Coneley's Mobil Gas Service Station property at 904 Newbridge; and, c) area within existing building.

A total of 257 yd^3 of soil were treated as part of the remedial action. Confirmation sampling indicated significant decreases in concentration of PCE from 280 to 98 ug/kg concentration in the former chemical waste storage area; 2,700 to 110 ug/kg concentration levels at the former Coneley's Mobil Gas Service Station; and from 1,500 to 84 ug/kg inside the building.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the pollutant releases at the subject site is required.

If you have any questions, please contact Mark Johnson of my staff at (510) 622-2493 [e-mail MJohnson@waterboards.ca.gov].

Sincerely,

Bruce H. Wolfe
Executive Officer

Attachment: Case Closure Summary
cc w/attach:

Deno Milano, San Mateo County Environmental Health dmilano@co.sanmateo.ca.us

Omo Fagbohungbe, DDEE, Inc., wasteit@aol.com

Lee and Margaret Gamblin
Kitty Cleaners
910 Newbridge Street
East Palo Alto, CA 94303

Exxon Mobil
c/o Ms. Jia Chen, Esq.
Beveridge & Diamond PC
456 Montgomery Street, #1800
San Francisco, CA 94104-1251

CASE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date:10/6/2009

Agency Name: SF Bay Regional Water Quality Control Board	Address: 1515 Clay Street, Suite 1400
City/State/Zip: Oakland, CA 94612	Phone: 510-622-2300
Responsible Staff Person: Mark Johnson	Title: Engineering Geologist

II. SITE INFORMATION

Site Facility Name: Kitty's Cleaners		
Site Facility Address: 910 and 904 Newbridge Street, East Palo Alto, CA 94303 (APN 062-121-0201310)		
RB Case No.: 41S0177	Local Case No.:	Priority:
Responsible Parties (include addresses and phone numbers)		
Mr. & Mrs. M. Karwash, 5015 Wembley Court, Newark, CA 94560 (Phone: 650 – 833 - 8526)		
Exxon Mobil (former gas station at 904 Newbridge) C/O Jia Chen, Beveridge & Diamond, 456 Montgomery Street, #1800, San Francisco, CA 94104		
Lee and Margaret Gamblin, Kitty's Cleaners, 910 Newbridge Street, East Palo Alto, CA 94303		

Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
N/A	N/A			

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Drycleaner operation { tetrachloroethene (PCE)}		
Site characterization complete? Yes	Date Approved by Oversight Agency: 12/12/2007	
Monitoring wells installed? Yes	Number: 3	Proper screened interval? 10-15 feet bgs
Highest GW Depth Below Ground Surface: 11.80ft	Lowest Depth: 12.30ft	Flow Direction: Northeast
Most Sensitive Current Use: none		
Most Sensitive Potential Use and Probability of Use: drinking water (low probability)		

Are drinking water wells affected? No	Aquifer Name: N/A
Is surface water affected? No	Nearest surface water name: SF Bay
Off-Site Beneficial Use Impacts (Addresses/Locations): No	
Report(s) on file? Yes	Where is report(s) filed? SF, RWQCB

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks			
Piping			
Free Product			
Soil	257 yd^3	In- situ Chemical Oxidation-Reduction	March 2009 to May 2009
Groundwater	N/A		
Barrels	N/A		

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ug/kg)		Water (ug/l)		POLLUTANT	Soil (ug/kg)		Water (ug/l)	
	Before	After	Before	After		Before	After	Before	After
PCE	2,700	110	6.4 (max)						
PCE	1,500	84							
PCE	280	98							

Comments (Depth of Remediation, etc.):

Targeted depth of Remediation is 1 to 5 feet bgs

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Yes		
Site Management Requirements: N/A		
Monitoring Wells Decommissioned: Yes	Number Decommissioned: 3	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: ---		

V. TECHNICAL REPORTS, CORRESPONDENCE, ETC. THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Work plan for Soil and Groundwater Sampling at Kitty's Cleaners	December 2006
(SI) Revised Report of Soil and Groundwater Sampling at Kitty's Cleaners	December 2007
(RI) Remedial Investigation Report of Contaminated Soil	July 2008
(RAP) Remedial Action Plan for Contaminated Soil at Kitty's Cleaners	August 2008
Work Plan for Installation of Injection Elements for Chemical Distribution in Subsurface Soil	January 2009
No Further Action/Closure Request for Kitty's Cleaners	July 2009
Health and Safety Report for Kitty's Cleaners	December 2006
Amended Remedial Action Plan for Contaminated Soil at Kitty's Cleaners	December 2008

VI. ADDITIONAL COMMENTS, DATA, ETC.

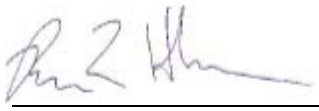
Should the existing cleaners facility be demolished, soil beneath the facility and around the sewer lines should be further screened to determine if any additional pollution may be present, prior to redevelopment of the property. Should any additional pollution be present, it would likely be very localized and can be dealt with at that time.

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.

CORNERSTONE EARTH GROUP

Type of Services	**Vapor Intrusion Mitigation Plan**
Location	**Menlo Science and Technology Park** **Menlo Park, California 94025**
Client	**Peninsula Innovations Partners, LLC**
Client Address	**1 Hacker Way** **Menlo Park, California 94025**
Project Number	**254-11-12**
Date	**April 2, 2018**

Kurt M. Soenen, P.E.
Principal Engineer



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CORNERSTONE EARTH GROUP

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CORNERSTONE EARTH GROUP

Type of Services	**Vapor Intrusion Mitigation Plan**
Location	**Menlo Science and Technology Park** **Menlo Park, California 94025**

SECTION 1: INTRODUCTION

On behalf of Peninsula Innovations Partners, LLC (Developer), Cornerstone Earth Group (Cornerstone) has prepared this Vapor Intrusion Mitigation Plan (Mitigation Plan) for the planned Menlo Science and Technology Park mixed commercial/residential development project in Menlo Park, California (Site) as shown on Figures 1 and 2. This work was performed in accordance with our December 21, 2017 Agreement (Agreement) with the Developer.

This Mitigation Plan presents the measures that will be implemented at the Site to effectively eliminate vapor intrusion concerns for the proposed development. Three aboveground open parking garages are also planned; however, since the garages do not include occupied spaces, vapor mitigation measures are not proposed for these structures.

This Mitigation Plan contains the following:

- Description of the conceptual development plans;
- Assessment of the vapor intrusion pathway;
- Selection criteria for installation of vapor mitigation measures;
- Description of the vapor mitigation system design components and operation;
- Construction quality control measures to help confirm the vapor mitigation system is installed in accordance with the design documents;
- Performance monitoring and measurements to help demonstrate that the vapor mitigation system is functioning properly and is effective in helping to prevent vapor intrusion concerns; and
- Criteria for conversion to an alternate system.

1.1 SITE DESCRIPTION

The Menlo Science & Technology Park (formerly known as Lincoln Willow Business Park and also referred to as the “Park”) is located in northern Menlo Park at the intersection of Willow Road and Hamilton Avenue. It consists of approximately 56 acres and is currently occupied by

21 single and double story mixed R&D and mixed commercial use buildings. The Site is bound to the north by Southern Pacific Railroad tracks, to the west by a residential area, to the south by the Hetch-Hetchy aqueduct right-of-way, and to the east by the Menlo Business Park.

Table 1 describes the physical location of the Site based on information provided by Peninsula Innovation Partners, LLC and information obtained from the San Mateo County Assessor's Office. The locations of the parcels and buildings are provided on Figure 2.

Table 1. Location and Ownership

Building Address*	APN No.	Parcel ID	Building ID	Year Built (Approx.)
1205-1275 Hamilton Court	055-440-010	A	A	1979
1200-1240 Hamilton Court	055-440-020	B	B	1979
1105-1195 Hamilton Court	055-440-030	C	C	1980
1100-1190 Hamilton Court	055-440-040	D	D	1980
1003-1005 Hamilton Court	055-440-050	E	E	1996
1010-1048 Hamilton Court	055-440-310	F-1	F-1	1981
1050-1098 Hamilton Court	055-440-320	F-2	F-2	1981
980 Hamilton Avenue	055-440-260	G	G	1962
990-998 Hamilton Avenue (960, 970, 976 and 978 Hamilton)[1]	055-440-330	H	H	1982
923-925 Hamilton Avenue	055-440-190	N	I	1988
927-953 Hamilton Avenue 959-967 Hamilton Avenue	055-440-090	J	J N	1988 1988
940 Hamilton Court (1394 Willow Road)[1] 960 Hamilton Court (1392 Willow Road)[1]	055-440-230	K	K-1 K-2	1962 1962
1374 Willow Road 1376 Willow Road	055-440-110	M	M-2 M-1	1959 1962
1390 Willow Road	055-440-130	P	P	1956
1380 Willow Road	055-440-300	Q	Q	1982
1370-1378 Willow Road	055-440-210	R	R	1962
1360 Willow Road	055-440-340	S	S	1985
1350 Willow Road	055-440-350	T	T	1985

* Note that for Hamilton, suffix identifiers have been inconsistently referenced in Site-related documents and have included include Avenue, Court, Road and Drive. Those listed in this table are those identified by online records from the County Assessor's Office.

1 Former address reported by Versar and/or EKI

1.2 REDVELOPMENT PLAN

A new mixed-use campus consisting of 28 structures is currently proposed, which will include a hotel, grocery store, cultural/visitor center, several residential buildings, several commercial/industrial buildings, retail areas and three parking structures (Figures 3 and 4). We understand the office and parking structures will be constructed at-grade, while the residential buildings, hotel, and cultural/visitor center will be supported on single-level, partially below-

grade parking garages. Based on the provided plans, the office and parking structures will be four and six stories, respectively; the residential buildings and hotel will be six stories; and the cultural/visitor center will be two stories. The first phase of the project is projected to be completed in 2020, and will consist of 485,000 square feet (480 units) of residential space, 1,038,000 square feet of commercial/industrial space, 25,000 square feet of retail space, and 112,000 square feet of hotel space. The second phase is projected to be completed by 2022, and will increase the amount of residential space to 1,611,000 square feet (1,500 units), and commercial/industrial space to 1,731,000 square feet. We anticipate the residential and commercial/industrial structures will be of steel and/or wood-frame construction, while the parking structures and garages will be constructed of reinforced concrete. Elevated pedestrian walkways between the commercial buildings and parking structures, plazas, parks, and additional improvements, such as flatwork, streets and at-grade parking, a water treatment plant, utilities and landscaping are also planned.

Based on finish floor levels at Elevation 11 feet (NAVD 88 datum) for the parking structures, Elevation 14 feet for the office structures, and Elevation 3 feet for the bottom of slabs at the residential structures and cultural/visitor center, cuts are anticipated to range up to approximately 7 feet for the partially below-grade parking garages supporting the residential/hotel/visitor center structures, and fills are anticipated to range up to approximately 5 feet to raise grades throughout the remainder of the Site.

1.3 REGULATORY STATUS

The Developer is in the process of executing a Voluntary Cleanup Agreement (VCA) with the Department of Toxic Substances Control (DTSC) to help address the environmental concerns identified at the Site.

SECTION 2: ASSESSMENT OF VAPOR INTRUSION PATHWAY

2.1 VAPOR INTRUSION PROCESS

Vapor intrusion is the movement of chemical vapors from contaminated ground water or soil into a nearby building. As vapor accumulates underneath a building slab, the vapor concentration and pressure in the soil pores increases. Pressure gradient is the primary driving force for vapor migration (e.g., vapor flows from high to low pressure). Accumulated soil vapor will potentially migrate through cracks in the foundation, drain tiles, utility pipes, sumps, and conduit penetrations if the pressure underneath the slab is greater than the pressure inside the building. Once inside the workplace, vapors may be inhaled posing potential health risks.

2.2 PRIOR STUDIES

Since the early 1990's, several environmental studies and remedial measures have been completed at the Site. These studies/measures are summarized in Cornerstone's Phase I Environmental Site Assessment and Preliminary Soil Vapor Quality Report (January 2015), Soil Vapor and Ground Water Quality Investigation (September 2017), and Draft Supplemental Phase II Investigation (January 2018). Please refer directly to these reports for a complete overview of the Site.

A preliminary investigation conducted in 1990 detected concentrations of volatile organic compounds (VOCs) in soil and ground water within the area of a former metal plating shop formerly utilized by Fairchild Hiller (located along the southern portion of Parcel H). Several

associated investigations were conducted to evaluate soil and ground water quality. As a result of the identified VOCs, the San Francisco Bay Regional Water Quality Control Board (Water Board) issued Cleanup Order No. 95-086 in 1995. Fairchild Industries, Inc. (Fairchild) was named as a discharger in the Order because it owned and operated the 62-acre property at the time of the discharge. Allied Signal, Inc. (Allied) was named as a discharger because it was a successor in interest to the Eltra Corporation, a former owner of the Site during the time of the release. Lincoln was named as a discharger because it was the owner of the Site at the time the Order was issued.

The primary cause of the contamination reportedly was the placement of solvents into a subgrade concrete sump that subsequently leaked into the soil and ground water. Several VOC compounds have been detected of which the primary constituent detected was trichloroethene (TCE). Subsequent investigations were conducted at the Site to determine the extent of ground water contamination. Remedial measures included removal of the sumps and underlying VOC-impacted soil (1992) and operation and maintenance of a dual-phase extraction system (1993 to 1996).

Following post-remedial soil vapor and ground water monitoring, in July 1999 the Water Board issued a letter confirming "*the completion of site investigation, remedial action and groundwater monitoring for the pollutant releases at the subject site*" and stated that "*no further action related to the pollutant release at the subject site is required*."

Between 2015 and 2017, Cornerstone performed soil, soil vapor and ground water sampling at the Site to evaluate current Site conditions and redevelopment considerations. The approximate sampling locations are shown on Figure 5. Relevant information in these reports that is applicable to this Mitigation Plan is summarized in Section 2.4.

2.3 SUBSURFACE CONDITIONS

Below the surface pavements, undocumented fill was encountered consisting of very stiff sandy fat clays, very stiff to hard sandy lean clays, and loose to medium dense clayey sands. Variable amounts of gravel were also encountered within the fill and extended to depths of up to 6 feet below existing grades. Expansive, stiff to hard surficial clays were generally encountered within the western portion of the Site, and extended to depths ranging from 3 to 8 feet. The surficial soils in the eastern portion generally consisted of stiff to very stiff lean clays with variable amounts of sand.

Clayey soils were generally observed in the upper 10 feet. In the northwest portion of the Site, sands were encountered between depths of 10 and 30 feet. The sand layers ranged from about 8 to more than 20 feet thick and consisted of loose to very dense poorly graded sands with variable amounts of silt and gravel, loose to medium dense silty sands with gravel, and loose to medium dense clayey sands with gravel. Clayey soils to 30 feet consisting of medium stiff to very stiff lean clays, lean clays with sand, and sandy lean clays were encountered throughout the remainder of the Site. Thin layers of medium dense poorly graded sands with variable amounts of silt and gravel and loose to medium dense clayey sands were interbedded within the clays.

Laboratory testing indicated that the in-situ moisture content within the upper 15 feet range from approximately 10 to 30 percent.

Ground water was encountered at depths ranging from about 8 to 16 feet below current grades corresponding to Elevations 2.0 to -5.2 feet (NAVD 88 datum). All measurements were taken at the time of drilling and may not represent the stabilized levels that can be higher than the initial levels encountered. Based on historic high ground water depth maps produced by California Geologic Survey (CGS, Palo Alto 7.5 Minute Quadrangle, 2006) and our experience in the area, historic high ground water depths may be as high as 5 feet below current Site grades. For this project, the Geotechnical Engineer of Record recommended a design ground water level at Elevation 5 feet (NAVD 88 datum), which corresponds to approximately 5 feet below site grades.

2.4 EXTENT OF VOCS IN SOIL, SOIL VAPOR, AND GROUND WATER

2.4.1 Soil

To further evaluate residual soil impacts in the former source area of VOCs, the former metal plating shop utilized by Fairchild Hiller (Parcel H), in November 2017 Cornerstone advanced five borings to an approximate depth of 15 feet. Two soil samples were collected from each boring based on soil lithology and organic vapor meter (OVM) readings. VOCs were not detected above laboratory reporting limits in the soil samples.

2.4.2 Ground Water

In May 2017, grab ground water samples were collected from 17 borings advanced across the Site to help evaluate the distribution of VOCs in ground water. Contaminants of concern cis-1,2-dichloroethene (cDCE) and TCE were detected in several samples with five samples containing concentrations above their respective drinking water Maximum Contaminant Level (MCL) established by the State Water Resources Control Board (State Water Board, 2017). These results are presented on Figure 6. No other VOCs were detected in ground water above their respective drinking water MCL.

As shown on Figure 6, the distribution of VOC-impacted ground water exceeding drinking water MCLs appears to coincide with historical VOC releases at Parcel H that have migrated north in the down-gradient ground water flow direction.

2.4.3 Soil Vapor

Based on the results of Cornerstone's soil vapor sampling studies performed in 2015 and 2016, concentrations of perchloroethene (PCE), TCE, and vinyl chloride (VC) were detected at the greatest frequency and magnitude. These results are presented on Figure 7. Benzene also was detected in several soil vapor samples; however, based on the relatively low concentrations (maximum detection of 39 $\mu g/m^3$) and lack of detections in the grab ground water samples, benzene does not appear to be a significant contaminant of concern at the Site.

As shown on Figure 7, except for soil vapor probe SV-16 located near the northeast corner of the Site, the greatest concentrations of the contaminants of concern generally are situated along the approximate centerline of the VOC ground water plume exceeding drinking water MCLs. Soil vapor concentrations generally decrease both west and east of the ground water plume exceedances. This data indicates the source of these VOCs in soil vapor is likely due to off-gassing of VOC-impacted ground water from beneath the Site. Residual VOC-impacted soil presumably present in the capillary zone above shallow ground water may also serve as a potential source of VOC vapors.

At soil vapor probe SV-16, elevated concentrations of TCE and VC were detected in the soil vapor samples. The paired ground water data collected at this location did not detect VOCs in the grab ground water sample. The source of the VOCs in soil vapor at this location is not known but likely is attributed the historical VOC ground water plume that has degraded and decreased in size over time. Residual contaminant mass in the low permeability clayey pore space likely is undergoing anaerobic biodegradation.

SECTION 3: SELECTION OF VAPOR MITIGATION MEASURES

3.1 DESCRIPTION OF VAPOR MITIGATION MEASURES

3.1.1 Vapor Barrier Membrane

A vapor barrier membrane will be installed beneath identified buildings. This membrane will be placed between the foundation of the building and the base materials, effectively sealing penetrations and the sub-slab to create an additional barrier to vapors from permeating through the slab and into the building. The gas vapor barrier system will consist of a protection base course, middle course vapor barrier, and a protection top course. The base course will be placed directly on top of the gravel layer, consist of a minimum approximately 5-mil HDPE film laminated with a nonwoven polypropylene fabric geo-membrane with a combined thickness of 18 mil, and meet the Class A requirement for water vapor barriers; Class A is the highest rating for puncture resistance. The middle course vapor barrier will be installed over the base course at a minimum 60 mil cured thickness. The top course will be installed over the spray-applied membrane and will be similar to the base course except with micro-perforations.

3.1.2 Passive VIMS

To help eliminate vapor intrusion concerns into the identified buildings, a passive sub-slab vapor intrusion mitigation system (VIMS) will be installed. The selected passive VIMS will not contain active mechanical equipment, but will be designed with the ability to easily convert to an active system if necessary.

The passive VIMS will be designed to allow for the unimpeded movement of soil gas vapors to the atmosphere. In addition to a permeable venting layer, perforated collection pipes are installed laterally in the venting layer to assist the collection of the soil gas and route it to an exhaust point outside the building. Wind-driven turbines will be installed at the exhaust point of each vent riser. With a passive VIMS, vapor intrusion is prevented by the natural movement of air through the venting layer, diluting the contaminants in the subslab, and allowing for a natural exhaust point before the contaminants have an opportunity to enter the building.

VIMS engineering design drawings and specifications will be prepared by Cornerstone and incorporated into the building engineering plans that will be provided to the City of Menlo Park and/or DTSC for their review and approval.

3.1.3 Preferential Pathways

To limit migration of soil vapor through pipe bedding backfill in utilities located above shallow ground water, and migration of ground water through pipe bedding in utilities that extend into ground water, low-permeability cutoff plugs will be installed at selected locations. The plugs will

consist of a minimum 3-foot long segment of controlled density fill (e.g. cement/sand slurry) that extends a minimum 1 foot above the pipe bedding material.

Subsurface dry conduits that are not properly sealed, become damaged during construction, and/or are open at the conduit end can serve as a preferential pathway for vapor migration into a structure. To minimize the potential migration of vapors into the building interior, dry conduit that penetrates the building slab will be sealed with closed-cell polyurethane foam, other inert gas-impermeable material, and/or any conduit seal that meets the minimum requirements for Class I locations identified in Article 501 of the National Electrical Code (NEC).

The installation locations and design details for low permeability trench plugs and conduit sealants will either be included in the VIMS engineering design drawings and specifications, or under separate cover.

3.2 ENVIRONMENTAL SCREENING CRITERIA

The California Environmental Protection Agency (CalEPA) has not established environmental screening levels for comparison to sub-slab and subsurface soil vapor data. To evaluate potential vapor intrusion concerns, CalEPA recommends using the Department of Toxic Substances Control (DTSC) guidance document *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* dated October 2011 (DTSC, 2011). Indoor air screening levels are adjusted using attenuation factors (AF) provided in the DTSC guidance. The attenuation factor represents the ratio between indoor air concentration and soil gas concentration, as follows:

$$AF = \frac{Cindoor\ air}{Csoil\ gas}$$

where:

$C_{indoor\ air}$ = indoor air residential or commercial screening level
$C_{soil\ gas}$ = calculated soil gas residential or commercial screening level

For new residential and commercial construction, attenuation factors of 0.001 (1/1,000) and 0.0005 (1/2,000), respectively, are provided in the 2011 guidance. These attenuation factors are used to calculate subsurface soil gas screening criterion.

Based on recent presentations by CalEPA staff at professional environmental organization meetings and our discussions with staff at DTSC and the Water Board, in 2018 CalEPA intends to issue an updated vapor intrusion guidance. The updated guidance will recommend screening level attenuation factors for residential and commercial use of 0.033 (1/30). This attenuation factor is comparable to the attenuation factor recommended by USEPA (0.03) in their June 2015 guidance document titled *Office of Solid Waste and Emergency Response (OSWER) Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway From Subsurface Vapor Sources To Indoor Air.*

Using the attenuation factors and equation provided above, the soil vapor analytical results were compared to calculated soil gas screening levels using indoor air Regional Screening Levels (RSLs) established by the USEPA Region 9 (USEPA, November 2017) unless a DTSC

recommended Screening Level (SL) is available as presented in the DTSC Human and Ecological Risk Office (HERO) guidance document *Human Health Risk Assessment (HHRA) Note 3* last updated in January 2018. RSLs and DTSC-SLs are used to screen sites for potential human health concerns where releases of chemicals to soil have occurred. DTSC recommends the use of US EPA RSLs for constituents for which no DTSC-modified SLs are published. RSLs and DTSC-SLs are risk-based concentrations derived from standardized equations combining exposure information assumptions with toxicity data. Table 2 summarizes the indoor air and calculated soil vapor screening levels for PCE, TCE, cDCE, and VC, the primary contaminants of concern at the Site. Soil vapor probe locations with samples exceeding the calculated soil vapor screening levels are presented on Figure 7.

Table 2. Indoor Air and Soil Vapor Screening Levels

	Indoor Air Screening Levels		Soil Vapor Screening Level			
			Residential		Commercial	
	Residential	Commercial	AF=1/1000	AF=1/30	AF=1/2000	AF=1/30
PCE	**0.46**[2]	**2**[2]	**460**[2]	**14**[2]	**4,000**[2]	**60**[2]
TCE	**0.48**[1]	**3**[1]	**480**[1]	**14**[1]	**6,000**[1]	**90**[1]
Vinyl Chloride	**0.01**[2]	**0.16**[2]	**10**[2]	**0.29**[2]	**320**[2]	**5.0**[2]
cDCE	**8.3**[2]	**35**[2]	**8,300**[2]	**249**[2]	**70,000**[2]	**1,050**[2]

Concentration measured in µg/m^3
AF Attenuation Factor

1 Regional Screening Level (RSL), US EPA – November 2017. Indoor air RSL was used to calculate soil vapor screening level for specified AF.

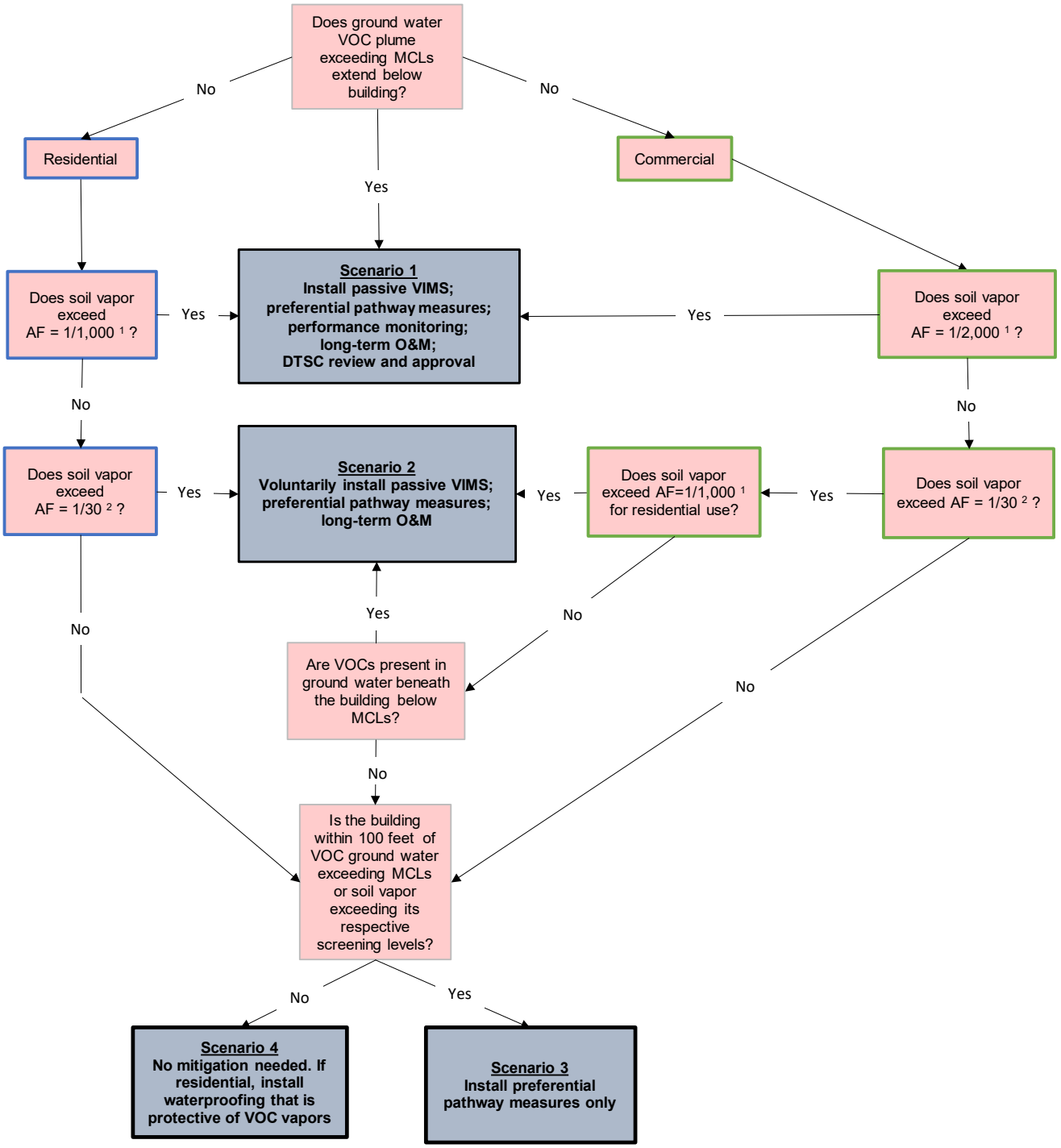
2 DTSC recommended Screening Level (SL) (HERO Note 3) – January 2018. Indoor air SL was used to calculate soil vapor screening level for specified AF.

3.3 DECISION CRITERIA FOR SELECTION OF MITIGATION MEASURES

As shown on Figures 3 and 4, the proposed development includes a variety of building types including office, residential, mixed use, and parking structures. To help select conservative vapor mitigation measures for each building, the decision framework presented in Diagram 1 was established. The decision framework is primarily based on the available soil vapor and ground water characterization data and considers several factors including: building use and construction type (*e.g. at-grade or below grade*); proximity to contaminated soil vapor and/or ground water that exceeds screening levels; soil vapor concentration magnitude and comparison of the results to both current screening levels, and the anticipated near future more conservative soil vapor screening levels (Table 2).

If desired, once development plans are better established, the Developer may elect to perform additional characterization sampling and/or human health risk evaluation to eliminate or modify proposed vapor mitigation measures for a specific building or Site location. This work, if performed, will be coordinated with DTSC.

Diagram 1. Decision Flow Chart for Implementation of VIMS



1 Attenuation Factor (AF) for future residential or commercial use (DTSC, 2011)

2 CalEPA recommended screening level AF for future residential or commercial use. Not yet published in CalEPA guidance documents

As shown in Diagram 1, the decision framework leads to four possible outcomes:

- Scenario 1 includes installation of a passive VIMS and preferential pathway vapor mitigation measures; performance of post-construction performance monitoring; long-term operation and maintenance (O&M); and review and approval by DTSC.
- Scenario 2 includes voluntary installation of a passive VIMS and preferential pathway vapor mitigation measures; and long-term O&M.
- Scenario 3 includes installation of preferential pathway mitigation measures only.
- Scenario 4 is no mitigation needed. If the structure is planned for residential with below ground parking, install a waterproofing membrane that is protective of VOC vapors.

Based on the decision framework, 10 buildings are in the Scenario 1 category; six buildings for Scenario 2; four buildings for Scenario 3; and five buildings for Scenario 4. These buildings and their scenario designation are summarized on Figure 8.

Note that benzene concentrations in soil vapor samples collected from vapor probe SV-14 exceed the commercial soil vapor screening level using an attenuation factor of 1/30; however, the maximum concentration is well below the residential soil vapor screening level using the current DTSC attenuation factor for new residential construction. As discussed in Section 2.4.3, benzene is not considered a contaminant of concern in selecting vapor mitigation measures due to the relatively low concentrations and lack of a ground water contaminant source. Since the planned structure near vapor probe SV-14 is an office building, and chlorinated contaminants of concern were not detected in the SV-14 soil vapor samples, installation of a VIMS for the planned nearby office building is not proposed.

Benzene also was detected in the vapor samples collected from probes SV-18, SV-21, and SV-22 at concentrations that exceed the calculated residential soil vapor screening level using an attenuation factor of 1/30. No other VOCs were detected in these vapor samples above their respective screening levels. As shown on Figure 8, vapor mitigation measures are already proposed for buildings nearby these vapor probes due to the building type (*i.e. installation of a waterproofing/soil vapor membrane*) and/or proximity to the chlorinated VOC soil vapor and/or ground water plume exceeding environmental screening levels.

SECTION 4: DESIGN AND CONSTRUCTION OF PASSIVE VIMS

This section presents selected design and construction components of the passive VIMS for the proposed structures identified on Figure 8 (Scenarios 1 and 2). As discussed above, VIMS engineering design drawings and specifications will be prepared by Cornerstone and incorporated into the building engineering plans that will be provided to the City of Menlo Park. VIMS engineering drawings and specifications for the identified Scenario 1 structures also will be provided to DTSC for review and approval.

4.1 PERMEABLE GRAVEL LAYER

The VIMS includes a vapor permeable gravel layer that will be placed across the entire footprint of a building selected for vapor mitigation. The gravel will provide a path of least resistance for the soil vapor to migrate, and a system of perforated pipes (soil vapor vent pipes) to collect the vapor and vent it to the atmosphere (vent risers). A gravel blanket will be installed over the

compacted sub-grade of the entire building footprint. A minimum 2-inch thick aggregate bedding and cover will be installed at all perforated pipe locations to facilitate adequate vapor migration. The vapor barrier membrane described in Section 3.1.1 will be installed over the gravel blanket.

4.2 SUB-SLAB VENT SYSTEM

The sub-slab vent system piping layout will extend across the entire building footprint. For design purposes, the collection pipe will be installed in each sub-slab area that is isolated due the presence of sub-slab walls or foundations (if any). Depending on the size of the isolated sub-slab area, the piping can either be connected to its own vent riser pipe, or connected to other piping not located in the isolated area by using a pipe sleeve through the sub-slab wall. Additionally, a maximum spacing of 50 foot on center and 25 feet from the building perimeter will be used as general design parameters. The piping networks will be embedded in the permeable gravel layer and connected to solid vent riser pipes that will extend from below the slab to the rooftop within utility chases.

4.3 MONITORING PROBES

To help evaluate soil vapor quality in the gravel venting layer, and measuring pressure differential if conversion to an active system is performed, monitoring probes will be installed at various locations beneath the building slab where the VIMS is present. The number of probes installed for each building will be based on the building size and configuration.

To monitor the pressure differential between the building interior and sub-slab gravel layer, one probe will also be installed inside a utility chase at the ground floor level or in the air space above the drop ceiling. If installed in the utility chase, the probe will be housed within a small enclosure that is open to the interior air space through a perforated or louvered cover installed flush with the interior wall.

The probes will consist of a porous polypropylene tip embedded in the permeable gravel layer and connected to ¼-inch diameter polyethylene tubing. The monitoring probe tubing will be routed through the perimeter foundation using ½-inch brass or stainless steel sleeve and terminated at a flush mounted vault with sampling port valves installed on each tubing. For system monitoring, the vault will be located in an accessible area near the building foundation and tubing sleeves.

4.4 PLUMBING FOR POSSIBLE CONVERSION TO ACTIVE SYSTEM

Design and installation of the passive VIMS will also include the necessary plumbing and equipment for easy conversion to an active system, if required. A power supply and electrical disconnect will be installed on the building rooftop at locations where a blower would be located. Conduit and cabling for internet service will also be routed to the blower location for the possible option of real-time remote monitoring and data logging and integration into the Building Management System (BMS).

4.5 CONSTRUCTION QUALITY CONTROL

4.5.1 Submittals

Before any of the materials identified in the engineering drawings are delivered to the Property, the installation contractor will be required to submit complete certified Shop Drawings for review and approval by Cornerstone. The Shop Drawings will include all details of fabrication, assembly, installation, descriptive literature, bulletins, catalog cut sheets of the components, complete manufacturer's specifications and materials of construction, and manufacturer's current recommended method of installation for materials provided.

4.5.2 Field Documentation

Cornerstone staff will perform periodic observations to document installation activities are performed in accordance with the approved engineering drawings. As part of this process, daily field reports documenting Site activities will be completed and made available for inspection by authorized oversight personnel for the duration of the project. Photographs will be taken to help document information entered in the daily field report.

4.5.3 Vapor Barrier Installation

4.5.3.1 Permitting

The Developer and/or their representative will obtain the required building permit from the City of Menlo Park for construction of the VIMS.

4.5.3.2 Contractor Certification

The selected vapor barrier contractor/applicator must be trained and approved by the vapor barrier manufacturer. The contractor/applicator will be required to provide a letter from the manufacturer confirming the contractor/applicator is certified by the manufacturer for installation of the product and warranting its product to be free of defects when that product is installed by the certified contractor/applicator. Field quality control is an important part to VIMS installation and the contractor/applicator will be required to check completed work prior to inspection by Cornerstone.

4.5.3.3 Vapor Membrane Coupon Sampling

Coupon samples of the vapor membrane will be collected to confirm the membrane thickness meets or exceeds 60 mils. A maximum area of 2 square inches will cut from the membrane for every approximately 500 square feet of application. Calipers will be used to measure its thickness. The coupon samples will be retained by Cornerstone for review by authorized representatives and/or submitted to the City of Menlo Park. Following performance of the integrity testing described in Section 4.5.3.4, the coupon sample location will be patched in accordance with the manufacturers approved methods. Spray or trowel applied vapor barrier material will be applied to an approximate 120 mil minimum dry thickness, extending at least three inches beyond the geotextile patch.

4.5.3.4 Vapor-Tight Integrity Testing

Following installation of the vapor barrier, but before placement of the protection top course, smoke/pressure testing will be performed to confirm the integrity of the membrane system. The smoke/pressure testing procedure typically involves using the following equipment: portable and reversible blower or ventilator capable of producing an airflow rate of 200 cubic feet per minute (cfm) at 2 inches water column equivalency; a fireproof smoke chamber with a 2-inch hose for connection to the geomembrane ventilation hole; and industrial smoke bombs or canisters sufficient to produce a quantity of smoke equal to two volumes of the soil vapor venting system. The smoke/pressure testing will be completed by the contractor/applicator and verified Cornerstone. The smoke testing procedure generally consists of the following steps:

1) The smoke testing assembly (blower and smoke chamber) is connected to a vent riser stub-up piping, or coupon sampling location.

2) To facilitate airflow through the collection layer and vent piping, a penetration of the vapor membrane is made to allow the smoke to displace the existing air volume. The initial ventilation hole should be located on the opposite side of the building from the soil vapor ventilation piping.

3) The vapor membrane, seams, penetration boots, and perimeter batten seals should be observed to document no leakage of smoke (or air) occurs at any location other than the ventilation hole. The vent hole should also be monitored to observe if air and/or smoke are dispersed through the soil vapor venting system and vented out through the penetration.

4) At a minimum, two additional vapor barrier penetrations and subsequent smoke tests (completed individually), as outlined above, will be completed in selected locations across the building footprint. Typical locations for vent holes within a building footprint are at diagonally opposite corners (e.g., northeast corner and southwest corner of building footprint).

5) Following completion of the additional individual penetrations and smoke/pressure tests, all penetrations will be permanently sealed.

6) Any leaks in the vapor barrier, perimeter batten seals, and/or piping boots other than the induced ventilation holes will need to be marked and appropriately repaired, followed by the completion of an additional smoke/pressure test to verify the vapor-tight integrity of the membrane.

SECTION 5: OPERATION, MAINTENANCE, AND MONITORING

System monitoring will generally entail two phases: (i) an initial post-construction phase; and (ii) a subsequent phase comprised of fewer diagnostic tests conducted periodically as part of the Long-term Vapor Intrusion Operations, Maintenance, and Monitoring (OM&M) Plan. Adjustments to the mitigation system and/or additional diagnostic testing may be warranted if the results of such testing do not clearly demonstrate that the system is achieving its intended performance and effectiveness.

5.1 INITIAL POST-CONSTRUCTION OPERATION OBSERVATION AND MONITORING

Initial post-construction monitoring activities will include: 1) visual observations; 2) collecting system measurements such as vacuum and pressure differential readings from the monitoring probes; and 3) collecting and analyzing air samples from indoor air, outdoor ambient air, and from the monitoring probes.

5.1.1 Observation and Monitoring Schedule

Table 3 provided below presents the inspection and monitoring schedule that will be implemented once building construction is completed.

Initial SSV system monitoring/sampling will be performed approximately 30 days after normal operation of the HVAC system, then repeated while the HVAC system remains off following an approximately 36-hour shutdown period.

Table 3. Initial Post-Construction Operation Inspection and Monitoring Schedule

Inspection Event	System Inspection	System Measurements	Probe Sampling	Indoor Air Sampling	Outdoor Air Sampling
30 days after construction – HVAC on	X	X	X	X	X
30 days after construction – HVAC off	X	X		X	X
60 days after construction – HVAC on	X	X			
3 months after initial sampling (prior to occupancy) – HVAC on	X	X	X	X	X

5.1.2 System Inspection

Observation of all visible components of the vapor intrusion mitigation system including piping, seals, membranes and collection points will be performed to evaluate any potential signs of defects, damage, or degradation. In addition, the foundation walls and slabs will be visually evaluated for cracks, damage and/or disturbance. If needed, corrective measures will be addressed and documented in the Vapor Intrusion Implementation Report, as outlined in Section 5.1.6.

5.1.3 System Measurements

Diagnostic testing of a passive vapor mitigation system can be difficult due to the low and variable flow rates and vacuum pressures generated with this type of mitigation system. Thus, this data is not expected to be useful in helping to evaluate performance criteria for the passive system. Flow measurements can be obtained from the vent pipe but may be below the limits for a pitot tube, a hotwire anemometer or other device. Nonetheless, prior to and/or during each air sampling event, system measurements will be recorded. Vacuum measurements will be taken using an appropriately-scaled micromanometer from the sub-slab monitoring probes and vent risers. Air velocity / flow measurements will also be taken from the vent risers using a pitot tube and micromanometer. Air velocity is measured in feet per minute and then multiplied by the cross-sectional surface area of the pipe to obtain flow in cubic feet per minute (CFM). Pressure differential readings between the indoor air and sub slab air will also be recorded.

5.1.4 Air Sample Collection and Analyses – Monitoring Probes

At the time of indoor air sampling, air samples will also be collected from the monitoring probes installed in the gravel venting layer. This data will be used to help evaluate if contaminant concentrations detected in the indoor air samples could have originated from subsurface vapor intrusion, or if the detected indoor air contaminants are from other sources (i.e., building materials and/or outdoor air).

Sampling of the monitoring probes will consist of connecting Teflon tubing (¼-inch diameter) to a dedicated sampling port (located at the exterior sample vault) and the other end of the tubing to a "T" fitting. A 6-liter Summa canister will be connected to the "T" fitting. The other end of the "T" fitting will be affixed to a digital vacuum gauge and a 1-liter Summa canister utilized for purging.

A minimum 10-minute vacuum tightness test will be performed on the manifold and connections by opening and closing the 1-liter purge canister valve and applying and monitoring a vacuum on the vacuum gauge. The sample shut-off valve on the downhole side of the sampling manifold will remain in the "off" position. When gauge vacuum is maintained for at least 10 minutes without any noticeable decrease (less than approximately 0.1 inches of mercury (Hg) for properly connected fittings), purging will begin. The shut off valve will be opened and approximately three tubing volumes of vapor will be removed using the purging 1-liter Summa. The volume of air removed will be estimated by the calculated pressure drop in the purging Summa canister. The purge volume will be calculated based on the length and inner diameter of the Teflon sampling tube and the connected sampling tubing and equipment. Tubing lengths will be measured and recorded on the as-built drawings.

The air samples will be collected in 6-liter Summa canisters using an 8-hour flow controller (office buildings) or 24-hour flow controller (mixed use/residential buildings). The canister and sampling trains will be individually certified by the laboratory for low level SIM analyses. Canister pressures will be measured before and after the monitoring period, and will be verified on receipt at the laboratory.

The samples will be submitted under standard chain of custody to Eurofins Airtoxics, for analysis of PCE, TCE, cDCE, and VC using EPA Method TO-15 GC/MS analysis. Eurofins Airtoxics is an accredited laboratory in California and several other states under the National Environmental Laboratory Accreditation Program (NELAP).

5.1.5 Air Sample Collection and Analyses – Indoor/Outdoor Air

Prior to occupancy, indoor air sampling will be performed for every approximately 10,000 square feet of building footprint on the ground level and second floor. The intake sampling port of the Summa Canister will be placed approximately 3 to 4 feet above the ground surface. To the extent practical, doors, windows, intake vents, and other openings will remain closed during sampling activities.

Outdoor air sampling will be simultaneously performed at a minimum three locations: two samples will be collected at ground level at up-wind locations; one sample will be collected from the building rooftop.

The indoor and outdoor air samples will be collected in 6-liter Summa canisters using an 8-hour flow controller for office buildings samples, and 24-hour flow controller for residential/mixed use

buildings samples. The canister and sampling trains will be individually certified by the laboratory for low level SIM analyses. Canister pressures will be measured before and after the monitoring period, and will be verified on receipt at the laboratory. The samples will be submitted under standard chain of custody to Eurofins Airtoxics, for analysis of PCE, TCE, cDCE, and VC using EPA Method TO-15 GC/MS analysis by SIM mode for the highest sensitivity analysis.

The analytical data will be compared to the screening levels presented in Section 3.2.

5.1.6 Reporting

A Vapor Intrusion Implementation Report will be provided upon completing the initial post-construction monitoring activities. The report will include:

- Description of the work performed;
- Contractor certification indicating that the vapor barrier was installed and tested in accordance with manufacturer's specifications and is free of leaks;
- As-built plans of the vapor mitigation system including approved construction submittals and shop drawings provided by the installation contractor;
- Results of the vapor membrane coupon sampling and vapor-tight integrity testing;
- Documentation of initial post-construction monitoring activities including visits and monitoring results to document effectiveness of the mitigation system;
- Results of the indoor air, outdoor air, and sub-slab sampling performed during post-construction monitoring;
- Corrective measures (if any) completed as result of initial post-construction operation inspection and monitoring activities;
- Summary of deviations to the construction, installation, operation, and/or maintenance of the vapor mitigation system; and
- Task list and schedule for implementation of future activities and documents, including the Building-Specific OM&M Plan (refer to Section 5.2).

5.2 LONG-TERM OPERATION, MAINTENANCE, AND MONITORING PLAN

Once an adequate demonstration of effectiveness has been made for the vapor intrusion mitigation system, periodic monitoring will be performed to verify that this performance is sustained. A Long-Term Operation, Maintenance, and Monitoring (OM&M) Plan will be provided after submitting the Vapor Intrusion Implementation Report. The OM&M Plan will include:

- Description of vapor intrusion control system(s) used;
- Description and schedule of normal operation and maintenance tasks, including equipment and material requirements, anticipated equipment replacement for significant

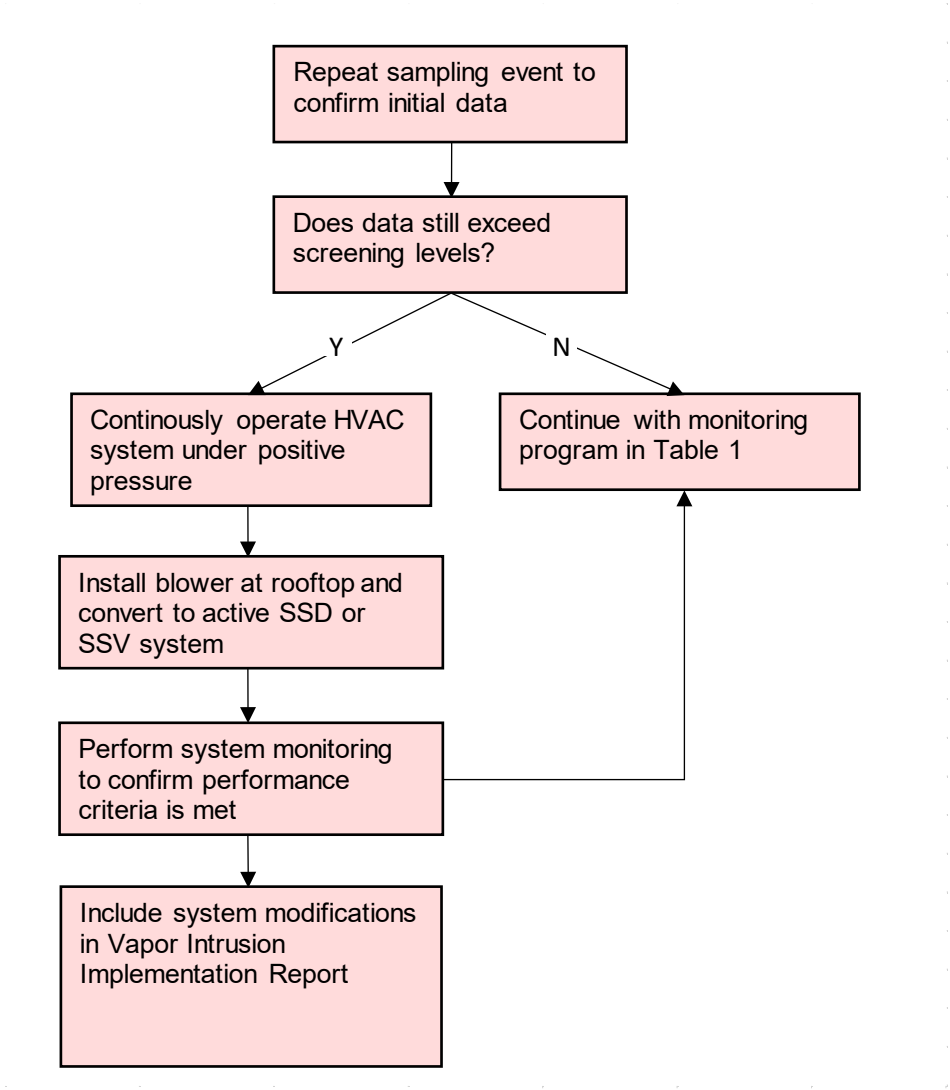
components, provisions for remote monitoring and control, operator training and certification requirements, staffing needs, and related requirements;

- Description of record keeping and reporting requirements, including operation and inspection logs, maintenance records and checklists;
- Description and analysis of potential operating problems and contingency plan (e.g., equipment failure, higher than expected contaminant concentrations), including emergency operating and response activities and relevant health and safety information;
- Description of the types of monitoring data to be collected, including sampling and data gathering methods;
- Recommended frequency and methodologies of sampling, types of samples, and performance monitoring;
- Description of how the performance data will be analyzed, interpreted, and reported to evaluate system performance;
- Description of air emission monitoring at the vent riser pipes to verify that air exhaust concentrations do not exceed requirements established by the Bay Area Air Quality Management District, if applicable;
- Measures will be described to evaluate exhaust emissions and potential re-entrainment of VOCs into the subject building;
- Quality Assurance/Quality Control activities;
- Project organization and responsibility;
- Overall operations, maintenance, and monitoring schedule;
- Description of notifications and coordination with DTSC, building manager, or tenants for collection of monitoring data;
- Description of the building-specific institutional controls monitoring, management, and implementation plan;
- Proposed decision-making process and criteria for determining the vapor intrusion control system is no longer necessary as a vapor intrusion remedy; and
- Description of the contents, format, and frequency of progress reporting.

5.3 CONTINGENCY ACTIONS FOR CONVERSION TO ACTIVE SYSTEM

If contaminants of concern are detected in the post-construction indoor air samples at concentrations that exceed indoor air screening levels for residential or commercial use, and the source of the indoor air contaminants is due to vapor intrusion, the contingency actions presented in the following flow chart will be implemented.

Diagram 2. Decision Flow Chart for Contingency Actions



As an initial step, the sampling event will be repeated to help confirm that indoor air concentrations exceed indoor air screening levels for chemicals of potential concern and vapor intrusion is occurring. The interim response action will consist of continuously operating the HVAC system under positive pressure: 24 hours a day, seven days a week.

The VIMS will be configured such that it could be operated either as an active sub-slab ventilation system (SSV) or sub-slab depressurization (SSD) system with minor modifications. For an active SSV, an appropriately sized blower would be installed at the outlet of the vent riser designated on the design drawings. The remaining vent risers would remain open to the atmosphere and allow fresh air to enter the sub-slab gravel blanket. The sub-slab vent piping will be configured to facilitate the cross flow of fresh air through the gravel blanket to reduce VOC levels within that zone while at the same time minimizing the VOC levels in the blower effluent. Similar to a passive system, effectiveness of the active ventilation system will be based on comparison of the indoor air data to indoor air screening levels for chemicals of potential concern.

In the SSD mode, an appropriately sized regenerative blower would be installed at the designated vent riser(s) and the remaining vent risers would be capped at the roof level. With this configuration and the site-specific soil conditions, the active SSD system should achieve a pressure differential (pre-startup baseline versus operational) of at least 0.004 inches of water column (1 Pascal) across the slab for the mitigation of vapor intrusion.

SECTION 6: LIMITATIONS

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SECTION 7: REFERENCES

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CORNERSTONE EARTH GROUP

FIGURES

CORNERSTONE EARTH GROUP

Vicinity Map

Menlo Science & Technology Park
Menlo Park, CA

Project Number	254-11-12
Figure Number	Figure 1
Date	April 2018
Drawn By	RRN

Approximate Site Boundary

Building I
Building N
Building J
Building C
Former railroad spur alignment
Building A
Hamilton Avenue
Building P
Building K-1
Building E
Willow Road
Building Q
Building K-2
Hamilton Court
Building R
Building F-1
Building M-1
Building M-2
Building D
Building B
Building G
Building F-2
Building T
Building S
Building H

N

0 200 400
APPROXIMATE SCALE (FEET)

Base by Google Earth, dated 3/11/2017

Proposal Number 254-11-12

Figure Number Figure 2

Drawn By RRN

Date April 2018

Site Plan

Menlo Science & Technology Park
Menlo Park, CA

CORNERSTONE EARTH GROUP

Base: OMA, Facebbok - Willow Campus, Aerial View, undated

0 300 600

APPROXIMATE SCALE (FEET)

Conceptual Aerial View

Menlo Science & Technology Park
Menlo Park, CA

Proposal Number	Figure Number	Drawn By
254-11-12	Figure 3	RRN
	Date: April 2018	

CORNERSTONE EARTH GROUP

Legend

- Office building
- Residential
- Mixed-use (retail on ground level and residential units above)
- Parking garage

N

0 200 400

APPROXIMATE SCALE (FEET)

Proposal Number 254-11-12

Figure Number Figure 4

Drawn By RRN

Date April 2018

Conceptual Plan View

Menlo Science & Technology Park
Menlo Park, CA

CORNERSTONE EARTH GROUP

Approximate Site Boundary

Approximate Parcel Boundaries

Parcel N
923-925 Hamilton Ave Building I
SV-49

Parcel J
927-953 Hamilton Ave Building J
959-967 Hamilton Ave Building N
GW-14
SV-14

Parcel E
SV-15
GW-15

Parcel C
1105-1195 Hamilton Ct Building C
SV-23
GW-23

Parcel A
1205-1275 Hamilton Ct Building A
SV-16
GW-16
SV-17
GW-17

Parcel P
SV-11
GW-11
1390 Willow Rd Building P
SV-27
940 Hamilton Ct Building K-1

Parcel Q
1380 Willow Rd Building Q
SV-22
GW-22

Parcel I
SV-12
GW-13
960 Hamilton Ct Building K-2
SV-13

1003-1005 Hamilton Ct Building E

SV-28/ SV-28 dup

SV-29

Willow Road

Parcel F-1
SV-9
GW-9
1010-1048 Hamilton Ct Building F-1

SV-26

Parcel R
SV-21
1370-1378 Willow Rd Building R
GW-21
SV-54

Parcel M
SV-8
1376 Willow Rd Building M-1
1374 Willow Rd Building M-2
SV-6
SV-4

Parcel G
GW-7
SV-7
980 Hamilton Ave Building G

Parcel D
SV-10
GW-10

Parcel B

Parcel F-2
1050-1098 Hamilton Ct Building F-2
SV-24

1100-1190 Hamilton Ct Building D

1200-1240 Hamilton Ct Building B

SV-25

Parcel T
1350 Willow Rd Building T
SV-57
SV-18
GW-18

Parcel S
1360 Willow Rd Building S
SV-58

Parcel H
SV-5
SV-1
GW-1
SV-2/ SV-2 dup
990-998 Hamilton Ave Building H
GW-2
SV-59
SV-3

SV-56

SV-19
GW-19
SV-40

SV-20
GW-20

Legend

- Approximate location of soil vapor probe (SV) (Cornerstone, May 2017)
- Approximate location of soil vapor probe (SV) (Cornerstone, January 2015, and re-sampled May 2017)
- Approximate location of soil vapor probe (SV) (Cornerstone, April 2016)
- Approximate location of exploratory boring for ground water sampling (GW)

N

0 200 400

APPROXIMATE SCALE (FEET)

Base by Google Earth, dated 11/2/2016
Overlay: Facebook - Menlo Park Campus, Full Build Out, OMA, undated

Proposal Number 254-11-12

Figure Number Figure 5

Drawn By RRN

Date April 2018

Sampling Locations

Menlo Science & Technology Park
Menlo Park, CA

CORNERSTONE EARTH GROUP

Screening Levels

	MCL [1] - Drinking Water
cis-1,2-dichloroethene (cDCE)	6.0
Trichloroethene (TCE)	5.0

Concentrations measured in µg/L

[1] Maximum Contaminant Level (MCL), State Water Resources Control Board - April 2017

< Not detected at or above laboratory reporting limit

BOLD Concentration exceeds drinking water MCL

Approximate Site Boundary

GW-14 5/4/2017	
cDCE	<0.50
TCE	<0.50

GW-15 5/4/2017	
cDCE	<0.50
TCE	1.1

GW-23 5/4/2017	
cDCE	<0.50
TCE	0.72

GW-17 5/4/2017	
cDCE	<0.50
TCE	<0.50

GW-16 5/4/2017	
cDCE	<0.50
TCE	<0.50

GW-11 5/3/2017	
cDCE	0.73
TCE	**13**

GW-13 5/3/2017	
cDCE	3.7
TCE	**12**

GW-22 5/3/2017	
cDCE	1.5
TCE	**5.1**

GW-21 5/1/2017	
cDCE	<0.50
TCE	<0.50

GW-7 5/3/2017	
cDCE	<0.50
TCE	2.2

GW-18 5/1/2017	
cDCE	<0.50
TCE	<0.50

GW-1 5/1/2017	
cDCE	<0.50
TCE	<0.50

GW-2 5/1/2017	
cDCE	**26**
TCE	4.2

GW-19 5/2/2017	
cDCE	<0.50
TCE	<0.50

GW-20 5/2/2017	
cDCE	<0.50
TCE	1.3

GW-9 5/2/2017	
cDCE	2.4
TCE	**7.5**

GW-10 5/2/2017	
cDCE	1.9
TCE	4.2

Dumbarton Plaza
Northern Gardens
Plaza
Retail Plaza
Hotel
Courtyard
Courtyard
Plaza
Garden
Retail Park
Lawn/ Meadow
Ivy Park
O'Brien Park
Willow Road

Legend

- Office building
- Residential
- Mixed-use (retail on ground level and residential units above)
- Parking garage

Legend

- ? ? Approximate extent of VOCs in ground water that exceed MCLs
- ? ? Approximate extent of VOCs in ground water
- Approximate location of soil vapor probe (SV)
- Approximate location of exploratory boring for ground water sampling (GW)
- GW-22 Highlighted ID indicates Ground water exceeds drinking water MCL

Base by Google Earth, dated 11/2/2016
Overlay: Facebook - Menlo Park Campus, Full Build Out, OMA, undated

N

0 200 400
APPROXIMATE SCALE (FEET)

Proposal Number 254-11-12
Figure Number Figure 6
Drawn By RRN
Date April 2018

Ground Water Data

Science & Technology Park
Menlo Park, CA

CORNERSTONE EARTH GROUP

Screening Levels

	Residential		Commercial	
	AF=1/1,000	AF=1/30	AF=1/2,000	AF=1/30
PCE	460 [1]	14 [1]	4,000 [1]	60 [1]
TCE	480 [1]	14 [1]	6,000 [1]	90 [1]
Vinyl Chloride	10 [2]	0.29 [2]	320 [2]	5.0 [2]

Concentrations measured in µg/m³

AF Attenuation Factor

[1] Regional Screening Level (RSL), US EPA - November 2017. Indoor air RSL was used to calculate soil vapor screening level for specified AF.

[2] DTSC recommended Screening Level (SL) (HERO Note 3) - January 2018. Indoor air SL was used to calculate soil vapor screening level for specified AF.

< Not detected at or above laboratory reporting limit

BOLD Concentration exceeds selected environmental screening criteria

Ring indicates sample exceeds selected screening criteria. Color designation is provided above.

SV-14	5/10/2017	8/4/2017
PCE	<1.1	<1.5
TCE	<1.5	<0.50
VC	<0.28	<0.90
SV-14 dup		
PCE	---	<1.5
TCE	---	<0.50
VC	---	<0.92

SV-15	5/10/2017	8/4/2017
PCE	<1.1	<1.5
TCE	**56**	**100**
VC	**21**	**36**

SV-17	5/10/2017	8/2/2017
PCE	**30**	**47**
TCE	**59**	**88**
VC	<0.28	<0.95

SV-16	5/10/2017	8/4/2017
PCE	13	**18**
TCE	**390**	**67**
VC	**680**	**100**

SV-28	5/10/2017	8/2/2017
PCE	**44**	**65**
TCE	**24**	**49**
VC	<0.29	<0.97
SV-28 dup		
PCE	**43**	---
TCE	**26**	---
VC	<0.28	---

SV-29	5/10/2017	8/2/2017
PCE	9.0	12
TCE	32	44
VC	<0.28	<0.96

SV-9	5/11/2017	8/2/2017
PCE	11	20
TCE	18	21
VC	<0.85	<0.98

SV-26	5/9/2017	8/2/2017
PCE	**490**	**790**
TCE	<1.5	<0.55
VC	<0.28	<1.0

SV-25	5/9/2017	8/2/2017
PCE	**96**	**120**
TCE	**24**	**35**
VC	<0.30	<0.90

SV-10	5/15/2017	8/4/2017
PCE	**52**	**89**
TCE	<2.1	<0.52
VC	<0.88	<0.94

SV-27	5/10/2017	8/1/2017
PCE	<1.1	<1.6
TCE	<1.5	<0.54
VC	8.4	**19**

SV-11	5/10/2017	7/31/2017
PCE	<1.1	<1.5
TCE	**19**	**27**
VC	5.2	7.8

SV-12	5/11/2017	7/31/2017
PCE	<1.1	<3.5
TCE	**620**	**1,000**
VC	**31**	**61**

SV-13	5/11/2017	7/31/2017
PCE	<2.7	<7.7
TCE	**3,600**	**5,400**
VC	**11**	**34**

SV-22	5/11/2017	8/1/2017
PCE	<1.1	<1.6
TCE	<1.4	<0.54
VC	<0.26	<0.99

SV-21	5/15/2017	8/4/2017
PCE	<2.6	<1.7
TCE	<2.0	<1.5
VC	<0.86	<0.91

SV-8	5/11/2017	8/1/2017
PCE	<1.1	11
TCE	**180**	**280**
VC	<0.26	<0.93

SV-4	5/15/2017	8/6/2017
PCE	<4.8	<1.6
TCE	<3.8	<0.53
VC	<1.6	<0.96
SV-4 dup		
PCE	---	<1.5
TCE	---	<0.52
VC	---	<0.94

SV-6	5/11/2017	8/1/2017
PCE	**610**	**900**
TCE	**2,200**	**3,200**
VC	**48**	<2.7

SV-7	5/11/2017	8/1/2017
PCE	**36**	**72**
TCE	11	**28**
VC	<0.27	3.5

SV-18	5/11/2017	8/4/2017
PCE	<2.6	<1.5
TCE	<2.1	<0.52
VC	<0.88	<0.94

SV-5	5/15/2017	8/1/2017
PCE	**34**	**67**
TCE	**490**	**960**
VC	<0.88	<0.93

SV-1	5/11/2017	8/2/2017
PCE	**15**	**30**
TCE	<2.1	<0.52
VC	<0.88	<0.95

SV-2	5/11/2017	8/4/2017
PCE	13	**23**
TCE	**180**	**370**
VC	<0.28	<0.92
SV-2 dup		
PCE	11	---
TCE	**170**	---
VC	<0.86	---

SV-3	5/15/2017	8/4/2017
PCE	**27**	**38**
TCE	**97**	**170**
VC	**130**	**110**

SV-24	5/15/2017	8/6/2017
PCE	**53**	**100**
TCE	<2.1	<0.54
VC	<0.90	<0.98

SV-19	5/9/2017	8/2/2017
PCE	20	32
TCE	<1.5	<0.56
VC	<0.28	<1.0

SV-20	5/15/2017	8/4/2017
PCE	**170**	**280**
TCE	<1.6	<0.51
VC	<0.30	<0.93

Legend

- Office building
- Residential
- Mixed-use (retail on ground level and residential units above)
- Parking garage
- Soil Vapor sample exceeds screening criteria (refer to Screening Levels Table for color designation)
- Approximate location of soil vapor probe (SV)
- Approximate location of exploratory boring for ground water sampling(GW)
- ? ? Approximate extent of soil vapor chlorinated VOC concentrations exceeding residential screening criteria (AF = 1/30)

Approximate Site Boundary

Dumbarton Plaza

Northern Gardens

Hotel

Retail Plaza

Courtyard

Plaza

Willow Road

Retail Park

Garden

Lawn/ Meadow

Ivy Park

O'Brien Park

N

0 200 400

APPROXIMATE SCALE (FEET)

Base by Google Earth, dated 3/11/2017

Overlay: Facebook - Menlo Park Campus, Full Build Out, OMA, undated

Proposal Number 254-11-12

Figure Number Figure 7

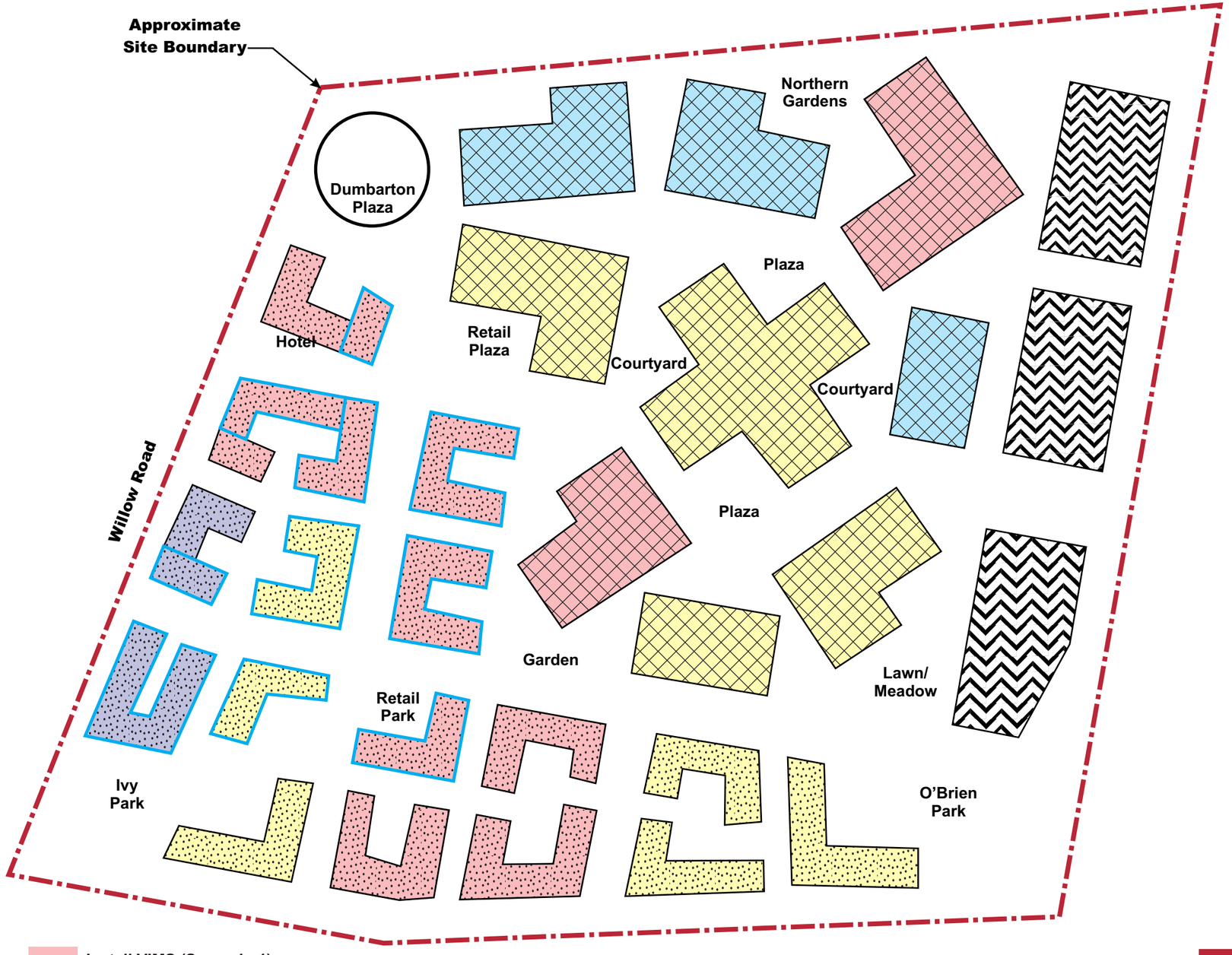
Drawn By RRN

Date April 2018

Soil Vapor Data

Menlo Science & Technology Park
Menlo Park, CA

CORNERSTONE EARTH GROUP



Legend

- Office building
- Residential
- Mixed-use (retail on ground level and residential units above)
- Parking garage
- Install VIMS (Scenario 1)
- Voluntarily Install VIMS (Scenario 2)
- Install preferential pathway mitigation measures (Scenario 3)
- Install waterproofing membrane that is protective of VOC vapors (Scenario 4)

N

0 200 400

APPROXIMATE SCALE (FEET)

Proposal Number	Figure Number	Drawn By
254-11-12	Figure 8	RRN
	Date	
	April 2018	

VIMS Building Plan

Menlo Science & Technology Park
Menlo Park, CA

CORNERSTONE EARTH GROUP

APPENDIX F:
Resumes

MIKE ATALLAH

President

Mike Atallah has substantial experience in construction consulting services specializing in due diligence analysis for real estate and construction projects including such areas as:

- Property Condition Assessment
- Construction Monitoring
- Budgeting
- Construction Cost Analysis
- Construction Cost Estimating
- Construction Management and Administration
- ADA Compliance Review

He was Vice President and Manager of Construction Services at Bank of America for over five years, preceded by nearly two decades of comparable responsibilities with two of the largest real estate lending institutions, Wells Fargo Bank and Union Bank. He successfully established and managed three of the most credible and respected construction consulting groups in the banking industry. He has a proven record of success in provision of technical support to lenders, developers and contractors.

Mr. Atallah has a Bachelor of Science Degree in Engineering supplemented by graduate business studies. He has provided professional and technical training presentations to Lenders, Real Estate Appraisers and Construction Consultants.

550 West Vista Way, Suite 212; Vista, California 92083 TEL (949) 756-8282 FAX (949) 756-8280

MICHAEL A. ATALLAH
Vice President

Mr. Atallah has hands on experience in the real estate due diligence fields and has maintained excellence in his knowledge of construction, environmental and real estate properties in general.

Qualifications:

- Over 14 years experience in preparing Physical Needs Assessments, Green Physical Needs Assessments, Phase I Environmental Site Assessments, Asbestos Consulting, Lead-Based Paint Consulting, Radon Consulting, ADA/Section 504 Consulting, Project Management, Construction Progress Monitoring and Probable Maximum Loss Assessments.

Professional Experience:

Integrated Property Analysis, Inc. **2000 - Current**
Vice President

- Providing Physical Needs Assessments, Green Physical Needs Assessments, Phase I Environmental Site Assessments, Asbestos Consulting, Lead-Based Paint Consulting, Radon Consulting, ADA/Section 504 Consulting, Project Management, Construction Progress Monitoring and Probable Maximum Loss Assessments.
- Coordinate field services and perform site assessments in accordance with, but not limited to, ASTM, HUD, USDA, TCAC, Fannie Mae, Freddie Mac, CALHFA and client guidelines.
- Quality control, including reviewing and editing of outgoing reports and draft contracts.
- Business Development to establish and maintain cooperative working relationships with clients.

Education & Licenses:

- California State University in Fullerton – Bachelor of Arts Degree in Business Administration with Concentrations in Real Estate and Finance
- LEED Accredited Professional
- Registered Environmental Property Assessor No. REPA 266318
- Certified Professional Radon Measurement Provider by the National Environmental Health Association No. NRPP ID#105517RT

Appendix F – Historic Preservation

- Johnson, LaShavio. *Letter to Ken Cole, County of San Mateo in ref: Proposed Gateway Family Housing Project located at 1345 Willow Road, Menlo Park, San Mateo County, California.* Washington, D.C. : Advisory Council on Historic Preservation, November 7, 2019. ACHP Connect Log Number: 014539.
- ***Programmatic Agreement between the County of San Mateo and the California State Historic Preservation Officer regarding the Gateway Family Housing Porject located at 1345 Willow Road, Menlo Park, California.*** Signed October 2019.
- Johnson, LaShavio. *Letter to Ken Cole, County of San Mateo in ref: Proposed Gateway Family Housing Project located at 1345 Willow Road, Menlo Park, San Mateo County, California.* Washington, D.C. : Advisory Council on Historic Preservation, September 27, 2019. ACHP Connect Log Number: 014539.
- Cole, Ken. *Letter to John M. Fowler, Advisory Council on Historic Preservation in re: Notice of Programmatic Agreement for Section 106 Review - Gateway Family Housing, 1345 Willow Road, Meno Park, San Mateo County, California.* s.l. : County of San Mateo, Department of Housing, August 29, 2019.
- County of San Mateo. *Public Notice of Preparation of a Project-Specific Programmatic Agreement for Historic Preservation.* s.l. : Department of Housing, October 8, 2019.
- San Mateo County Times. *Certified Proof of Publication.* Publication Date October 8, 2019.
- AEM Consulting & County of San Mateo. *Mailing List of Interested Parties - Gateway Family Housing.* Mailed October 7, 2019.
- Evans & De Shazo, Inc. *Archaeological Site Sensitivity Study and Cultural Resource Monitoring Plan for the Proposed Gateway Family Housing Redevelopment Project, Menlo Park, San Mateo County, California.* Sebastopol, CA : s.n., August 6, 2019.
- Polanco, Julianne. *Letter to Ken Cole, County of San Mateo in re: Gateway Family Housing Redevelopment Project at 1345 Willow Road, Menlo Park, CA.* Sacramento, CA : State of California, Department of Parks and Recreation, Office of Historic Preservation, May 23, 2019. Refer to HUD_2019_0426_002.
- Cole, Ken. *Letter to Julianne Polanco, State Historic Preservation Officer in re: Request for Section 106 Review: Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025.* s.l. : County of San Mateo, Department of Housing, April 25, 2019.
- AEM Consulting. *Historic & Cultural Resources Evaluation, Historic Resources for Section 106 Review: Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025.* April 2019.
- Guldenbrein, Jillian. *Records search results for the proposed Gateway Family Housing at 1317 and 1345 Willow Road (APN 055-383-560) in Menlo Park, San Mateo County, CA.* Rohnert Park, CA : California Historical Resources Information System, Northwest Information Center, Sonoma State University, April 10, 2019. NWIC File No.: 18-1918.

- Totton, Gayle. *Letter to Cinnamon Crake, AEM Consulting in RE: Gateway Family Housing Project, City of Menlo Park; Palo Alto USGS Quadrangle, San Mateo County, California.* West Sacramento, CA : Native American Heritage Commission, April 8, 2019.
- Crake, Cinnamon. *Letter to the Native American Heritage Commission.* s.l. : AEM Consulting, April 5, 2019.

Preserving America's Heritage

November 7, 2019

Mr. Ken Cole
Director
Department of Housing
County of San Mateo
264 Harbor Blvd. Building A
Belmont, CA 94002-4017

Ref: *Proposed Gateway Family Housing Project located at 1345 Willow Road*
Menlo Park, San Mateo County, California
ACHPConnect Log Number: 014539

Dear Mr. Cole:

The Advisory Council on Historic Preservation (ACHP) has received a copy of the executed Section 106 agreement document (Agreement) for the referenced undertaking. In accordance with 36 CFR 800.6(b)(1)(iv) of the ACHP's regulations, the ACHP acknowledges receipt of the Agreement. The filing of the Agreement and implementation of its terms fulfills the requirements of Section 106 of the National Historic Preservation Act and the ACHP's regulations.

We appreciate receiving a copy of this Agreement for our records. Please ensure that all consulting parties are provided a copy of the executed Agreement in accordance with 36 CFR 800.6(c)(9). If you have any questions or require additional assistance, please contact Mr. Anthony Guy Lopez at (202) 517-0220 or via e-mail at alopez@achp.gov and reference the ACHPConnect Log Number above.

Sincerely,

LaShavio Johnson

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

PROGRAMMATIC AGREEMENT
BETWEEN THE COUNTY OF SAN MATEO
AND THE
CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE GATEWAY FAMILY HOUSING PROJECT LOCATED AT 1345 WILLOW ROAD
MENLO PARK, CALIFORNIA

THIS PROGRAMMATIC AGREEMENT ("PA"), entered into this ____ day of _____, 2019 ("PA Date") by and between the COUNTY OF SAN MATEO, a political subdivision of the State of California, hereinafter called the "County," and the CALIFORNIA STATE HISTORIC PRESERVATION OFFICER hereinafter called "SHPO".

RECITALS

WHEREAS, MidPen Housing Corporation, a California registered 501(c)(3) non-profit organization ("MidPen" or the "Developer"), proposes to construct the Gateway Family Housing project (the "Project") on a 2.96 acre site with 140 affordable housing units in three- and four-story buildings, located at 1345 Willow Road in Menlo Park, California, and operate the property as affordable housing with parking and amenities; and

WHEREAS, the County has determined the Project, is an "Undertaking" as defined in Section 800.16(y) of 36 CFR Part 800 National Historic Preservation Act ("NHPA"); and

WHEREAS, the County, designated to fulfill the requirements of Section 106 of NHPA with respect to the Undertaking, and given the current state of the property as developed with 17 buildings, parking and landscaping, is unable to adequately determine if buried cultural resources exist under the site that may be disturbed during redevelopment of the site; and

WHEREAS, the site is highly sensitive for buried cultural resources that may be eligible for listing on the National Register of Historic Places ("NHRP") and may be affected by the Undertaking, and the presence of such historic properties cannot be determined at this time; and

WHEREAS, the County has consulted with SHPO pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the NHPA (Title 16 U.S.C. § 470), as amended; and

WHEREAS, the County, through the United States Housing Act of 1937, Section 8(c)(9), as amended, for the release of Project-Based Section 8 Vouchers, will be the Agency Official for the Undertaking; and

WHEREAS, the Housing Authority of the County of San Mateo ("HACSM") has conditionally awarded Project-Based Section 8 Vouchers to the Developer, and has also been invited to concur in this PA; and

WHEREAS, the Developer has participated in the consultation and has been invited to concur in this PA; and

WHEREAS, the County is a Certified Local Government pursuant to Section 101(c)(1) of the NHPA; and

WHEREAS, the County remains responsible for reporting the progress of this Undertaking, as it pertains to the Section 106 consultation process, to SHPO for the duration of this PA; and

WHEREAS, in accordance with the 36 CFR Part 800.6(a)(1), the County has notified the Advisory Council on Historic Preservation ("ACHP") of the Undertaking with specific documentation, and ACHP has chosen not to participate in consultation pursuant to 36 CFR Part 800.6(a)(1)(a)(iii);

NOW, THEREFORE, the County and SHPO agree that the Undertaking shall be implemented in accordance with the following Stipulations in order to take into account the effect of the Undertaking on historic properties.

STIPULATIONS

The County shall ensure that the following measures are carried out:

I. ARCHAEOLOGICAL MONITORING DURING CONSTRUCTION

A *Secretary of the Interior Qualified Archaeologist* shall be retained to in accordance with the Cultural Resources Monitoring Plan (CRMP) in attachment 1 to this PA and provide archaeological monitoring for project-related earth-disturbing activities within the Project Area. The CRMP shall be followed at all times during construction and in the event of accidental discovery of buried cultural resources or human remains.

II. DURATION

This PA will be null and void if its terms are not carried out within five (5) years from PA Date. Prior to such time, the County may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Stipulation VIII below.

III. POST-REVIEW DISCOVERIES

If potential historic properties are discovered or unanticipated effects on historic properties found, the County shall implement the discovery plan included as attachment 1 of this PA.

IV. MONITORING AND REPORTING

Each year following the execution of this PA until it expires or is terminated, the County shall provide all parties to this PA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in County's efforts to carry out the terms of this PA.

V. DISPUTE RESOLUTION

Should any signatory or concurring party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, the County shall consult with such party to resolve the objection. If the County determines that such objection cannot be resolved, the County will:

A. Forward all documentation relevant to the dispute over the objection, including the County's proposed resolution, to ACHP. ACHP shall provide the County with its written feedback on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the County shall prepare a written response that incorporates any timely feedback or comments regarding the dispute from ACHP, signatories and concurring parties, and provide them with a copy of this written response. The County will then proceed accordingly with its final decision.

B. If ACHP does not provide any feedback regarding the dispute within the thirty (30) day time period, the County may make a final decision to resolve the dispute over the objection and proceed accordingly. Prior to reaching such a final decision, the County shall prepare a written response that takes into account any timely feedback or comments regarding the dispute over the objection from the signatories and concurring parties to the PA, and provide them and ACHP with a copy of such written response.

C. The County's responsibility to carry out all other actions pursuant to the terms of this PA that are not the subject of the dispute over the objection remain unchanged.

VI. AMENDMENTS

This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VII. TERMINATION

If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VIII above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.

Once the PA is terminated, and prior to work continuing on the Undertaking, the County must either (a) execute a PA pursuant to 36 CFR § 800.6 or (b) solicit and incorporate, and respond to any comments of ACHP under 36 CFR § 800.7. The County shall notify the signatories as to the course of action that it will pursue.

Execution of this PA by the County and SHPO and implementation of its terms evidence that the County has considered the impact of this Undertaking on historic properties and afforded ACHP an opportunity to comment on the same.

SIGNATORIES:

County of San Mateo

By: _____ Date: 10-24-2019

Kenneth Cole, Director

California State Historic Preservation Officer

By: _____ Date: 10/28/19

Julianne Polanco, State Historic Preservation Officer

CONCURRING PARTIES:

Housing Authority of the County of San Mateo

By: _____ Date: 10-24-2019

Kenneth Cole, Executive Director

MidPen Housing Corporation

By: _____ Date: _____

Matt Franklin, President and Chief Executive Officer

EVANS & DE SHAZO
ARCHAEOLOGY HISTORIC PRESERVATION

ARCHAEOLOGICAL SITE SENSITIVITY STUDY AND CULTURAL RESOURCE MONITORING PLAN FOR THE PROPOSED GATEWAY FAMILY HOUSING REDEVELOPMENT PROJECT, MENLO PARK, SAN MATEO COUNTY, CALIFORNIA

PREPARED FOR:

Cinnamon Crake, Associate
AEM Consulting

PREPARED BY:

Sally Evans, M.A., RPA
Principal Archaeologist
sally@evans-deshazo.com

August 6, 2019

Evans & De Shazo, Inc.
1141 Gravenstein Highway South
Sebastopol, CA 95472
707-812-7400
www.evans-deshazo.com

MANAGEMENT SUMMARY

Evans & De Shazo Inc. (EDS) completed an archaeological site sensitivity study and based on the results of the study developed a Cultural Resources Monitoring Plan (CRMP) for the proposed Gateway Family Housing Redevelopment Project (Project) located within a 2.6-acre site located at 1345 Willow Road, Menlo Park, San Mateo County, California (Project Area) that currently contains 82 multifamily units in 17 buildings and associated infrastructure. The scope of the archaeological site sensitivity study was to assess the potential for historic or prehistoric period archaeological resources to be present within the Project Area, and the scope of the CRMP is to outline procedures that will allow for the identification, evaluation, treatment, and protection of archaeological resources that may be encountered by ground disturbing activities associated with the Project. The CRMP will serve as an agreement document that will govern the actions to be taken if historic properties are discovered during the implementation of the Project.

The archaeological site sensitivity study determined that the prehistoric archaeological sensitivity of the Project Area is high, and that the historic archaeological sensitivity of the Project Area is low. Due to the potential for the Project Area to contain either surficial or buried prehistoric archaeological resources, archaeological monitoring by a Secretary of Interior-qualified archaeologist is during Project-related earth-disturbing activities that have the potential to encounter archaeological resources.

The CRMP outlines the procedures to be followed should archaeological resources be encountered within the Project Area during archaeological monitoring, and includes a research design to follow in the event that potentially significant archaeological resources are discovered during excavation associated with the Project.

The archaeological site sensitivity study and CRMP presented herein includes the following sections:

- A description of the Project and its location;
- A regulatory setting;
- A natural and cultural overview;
- A record search and review that includes a summary of known archaeological resources in the area, and an archaeological site sensitivity analysis;
- A research design; and,
- A monitoring plan to be followed during all ground disturbing activities, including routine monitoring protocols, discovery plans including treatment plans for discovery of any human remains in accordance with the state law, and curation and reporting requirements.

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1.0 INTRODUCTION

In April 2019, AEM Consulting prepared a Historic & Cultural Resources Evaluation for the Gateway Family Housing project that was provided to the State Historic Preservation Officer (SHPO) for review. The SHPO concurred with the delineation of the Area of Potential Effect (APE), which included the Project Area and 25 surrounding properties (26 properties total), as well as the finding that the built-environment resources within the APE are not eligible for listing in the National Register of Historic Places (NRHP); however, the SHPO recommended conducting an archaeological field study, or the preparation of a programmatic agreement document for the undertaking.

EDS has prepared this archaeological site sensitivity study and CRMP at the request of AEM Consulting for the proposed Gateway Family Housing Redevelopment project to assess the potential for historic or prehistoric period archaeological resources to be present within the Project Area, and to outline procedures to allow for the identification, evaluation, treatment and protection of significant archaeological resources that may be unearthed during Project-related earth-disturbing activities within the Project Area. The archaeological site sensitivity study and CRMP was prepared to serve as the programmatic agreement document for the undertaking.

The archaeological site sensitivity study and CRMP identifies the potential for archaeological resources to be discovered within the Project Area and outlines the mitigation measures that will be followed to ensure that adverse impacts to historic properties resulting from Project-related earth-disturbing activities within the Project Area are identified and mitigated following the Secretary of Interior's Standards for Archaeological Documentation.

1.1 PROJECT DESCRIPTION

The Project Area currently contains 82 multifamily units in 17 buildings. Mid-Pen Housing is proposing to temporarily relocate the current occupants of the units, demolish the existing buildings, abandon an existing easement at the site frontage, and construct a new 140-unit affordable housing project with onsite parking, community room and amenities. The unit mix will include 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. The Project will utilize funds from the U.S. Department of Urban Development (HUD), and is therefore subject to review under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800.

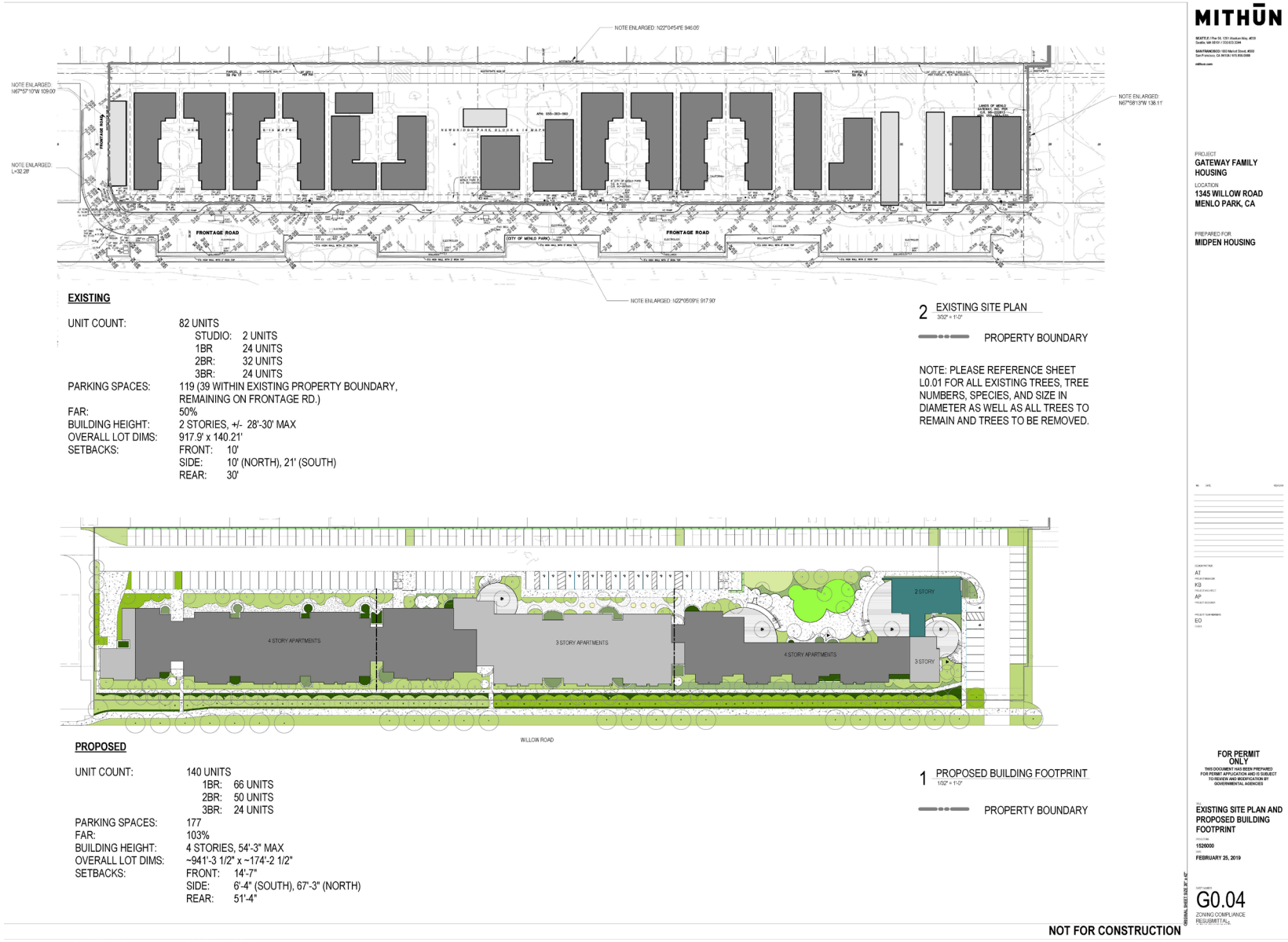

Figure 1: Existing Site Plan and Proposed Building Footprint. Prepared by Mithūn, 2/25/2019.

1.2 PROJECT LOCATION

The Project Area is located at 1345 Willow Road, Menlo Park, San Mateo County, California within Assessor Parcel Number (APN) 055-383-560 (Project Area) that is 2.6-acres in size (Figure 2). The Project Area is bound on the north by the Chevron Station, on the east by Willow Road, also known as State Route 114, which is an arterial roadway connecting Highway 101 and the Bayshore Freeway, on the south by Soleska Market and Ivy Drive, and on the east by single-family homes.

On the USGS 7.5' Palo Alto, California quadrangle (1991), the Project Area lies in Township 5 South, Range 3 West, Mount Diablo Meridian (Figure 3). The Universal Transverse Mercator (UTM) grid coordinates at the approximate center of the Project Area are: 4148238 meters North and 574933 meters East, Zone 10.

1.3 AREA OF POTENTIAL EFFECT

The regulations implementing the Section 106 review process requires that an APE be defined for the Project (36 CFR 800.16(d)) that takes into consideration direct and indirect effects to historic properties. The APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking".

The area within which the Project has the potential to directly affect historic properties includes the 2.6-acre Project Area (Figure 4). Indirect affects to historic properties were also considered as part of the Historic & Cultural Resources Evaluation prepared by AEM Consulting in April 2019 that included 25 surrounding properties, none of which were found to contain historic properties that could be indirectly affected by the proposed Project.

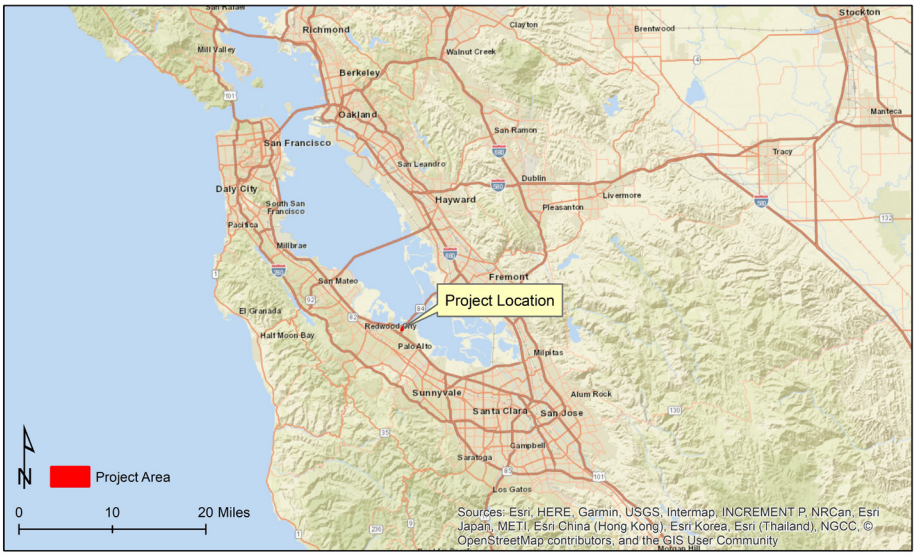

Figure 2: Project vicinity.

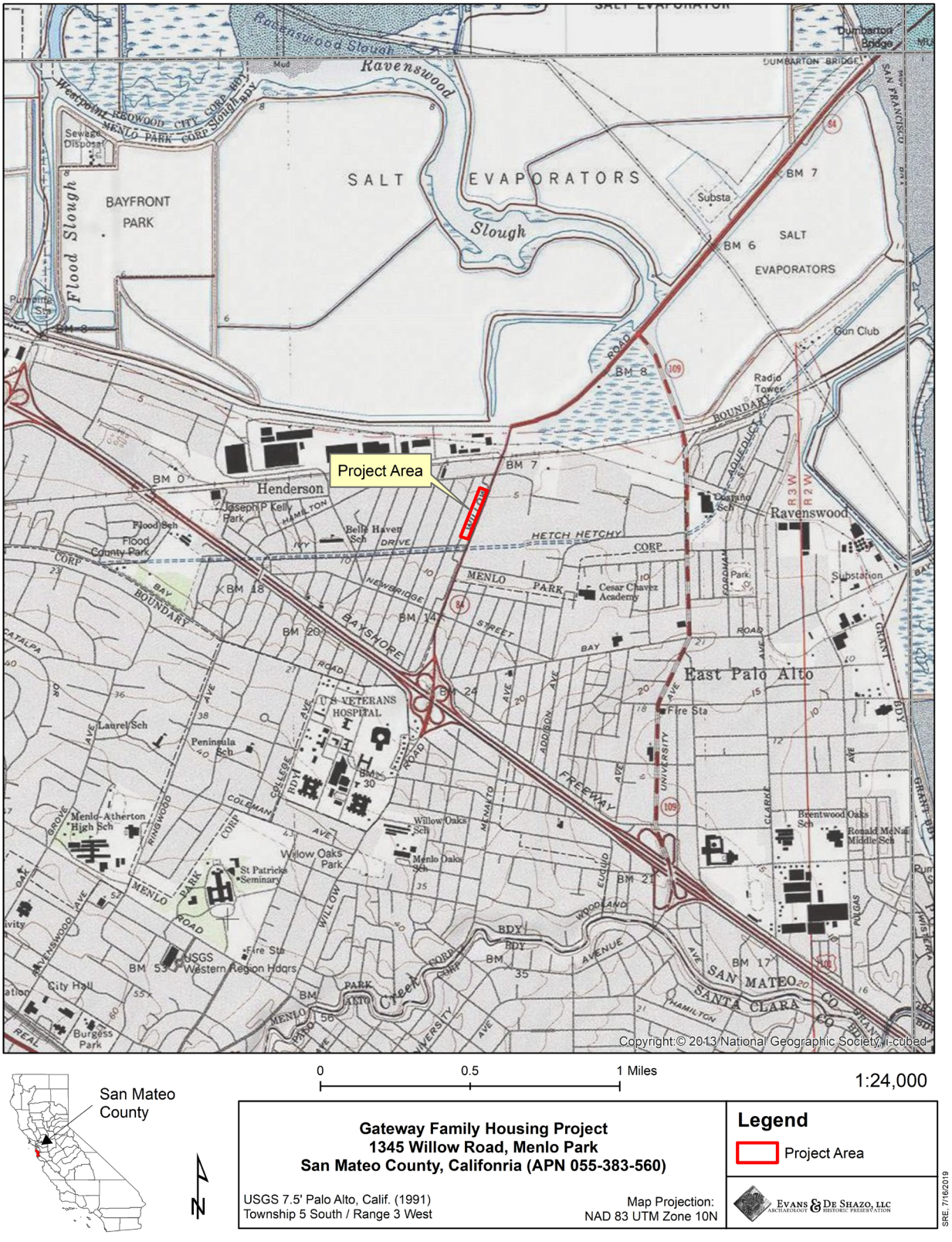

Figure 3: Project Area location map.

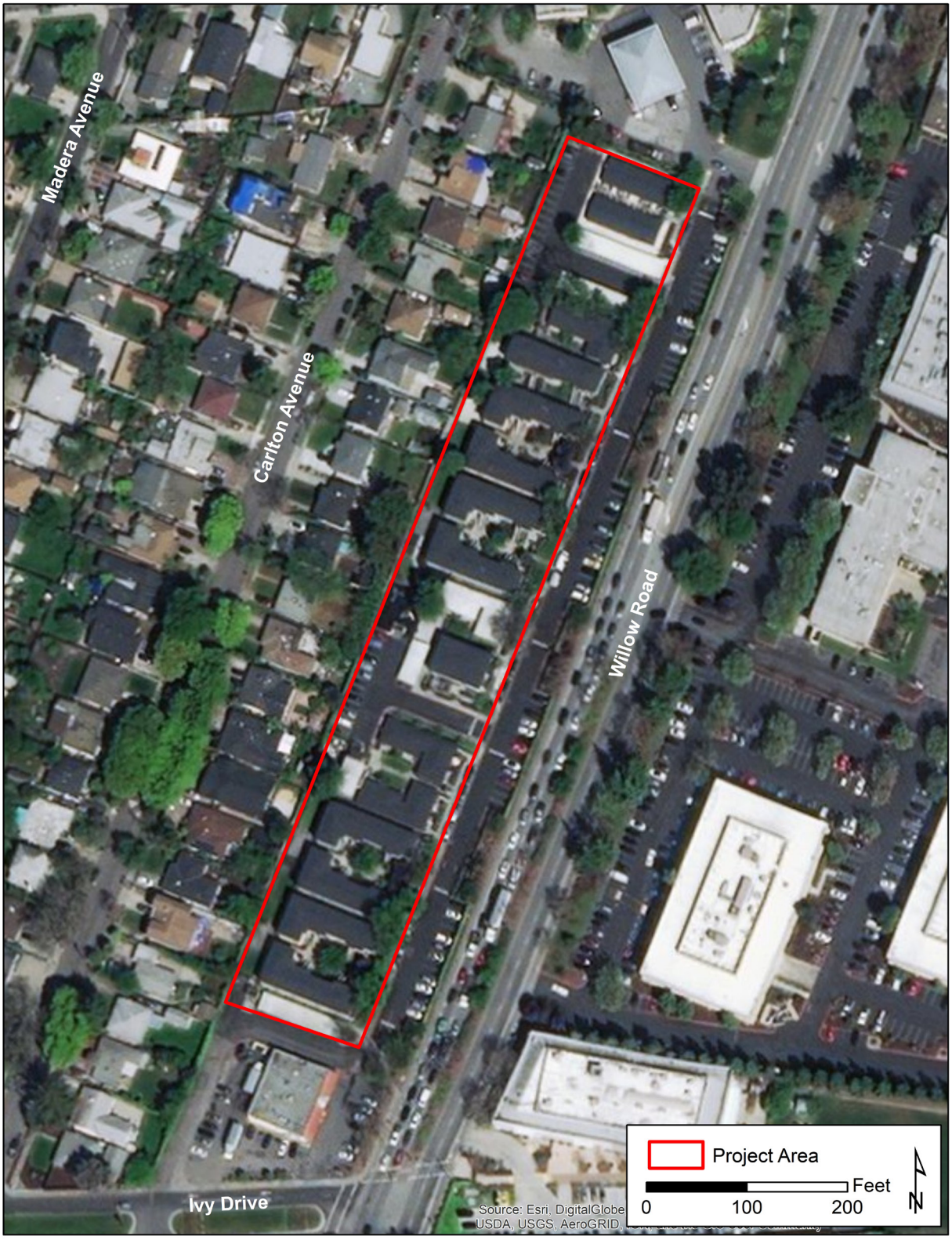

Figure 4: Aerial view of Project Area.

2.0 REGULATORY SETTING

Federal, state and local laws, ordinances, regulations and statures protect cultural resources. Federal laws and regulations related to significant cultural resources would apply only if the project is wholly or partially funded, either direct or indirectly by a federal agency or federal permits or licenses are involved, or if project impacts occur on federally owned or managed lands. The proposed Project is considered an undertaking subject to NEPA and Section 106 of the NHPA review due to financial assistance being provided by HUD for the Project. These regulations, as they pertain to cultural resources, are outlined below.

2.1 THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA [42 U.S.C. 4321 et seq.] establishes national environmental policies and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the Federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

The term "cultural resources" is not defined in NEPA. NEPA address the "human" — social and cultural — aspects of the environment. Culturally valued aspects of the environment generally include historic properties (as defined by the NHPA), sacred sites, archaeological sites not eligible for the NRHP and archaeological collections. The cultural use of natural resources and such "intangible" socio-cultural attributes as social cohesion, social institutions, life ways, religious practices, and other cultural institutions are typically evaluated under the "social impact" category. This HPS will identify the potential adverse and beneficial effects on historic and cultural resources (i.e. historic properties), sacred sites and archaeological sites not eligible for the NRHP that result from implementation of the Project.

2.2 NATIONAL HISTORIC PRESERVATION ACT (NHPA) - SECTION 106

Section 106 of the NHPA pertains to Federal “undertakings”. A Federal undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. The NHPA directs federal agencies to take into account (through identification, recordation and mitigation) the effects of proposed activities on historic properties and give the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Historic properties are properties that are included in the NRHP or that meet the criteria for the National Register.

2.2.1 National Register of Historic Places

Historic properties are districts, sites, buildings, structures, and objects listed or found eligible for listing in the NRHP. Unlisted properties are evaluated against the National Register criteria to determine eligibility for listing, in consultation with the SHPO or Tribal Historic Preservation Officer (THPO) and any Native American Tribe that may attach religious or cultural importance to them.

The five property types are:

- **Building**: A structure created principally to shelter or assist in carrying out any form of human activity. A "building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.
- **Structure**: A construction made for a functional purpose rather than creating human shelter. Examples include mines, bridges, and tunnels.
- **Object**: Construction primarily artistic in nature or relatively small in scale and simply constructed. It may be movable by nature or design or made for a specific setting or environment. Objects should be in a setting appropriate to their significant historic use or character. Examples include fountains, monuments, maritime resources, sculptures and boundary markers.
- **Site**: The location of a significant event. A prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event and if no buildings, structures, or objects marked it at that time. Examples include trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs.
- **District**: Unified geographic entities which contain a concentration of historic buildings, structures, or sites united historically, culturally, or architecturally.

In order to be included or qualify for the National Register, a building, structure, object, site or district must possess significance in American history, architecture, archaeology, engineering or culture, and must be associated with an important historic context and retain historic integrity of those features necessary to convey its significance. The resource should possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet any of the following criteria:

A. Is associated with events that have made a significant contribution to the broad patterns of our history; or

B. Is associated with the lives of persons important in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or,

D. Has yielded, or may be likely to yield, information important in prehistory or history.

3.0 NATURAL AND CULTURAL OVERVIEW

This section describes the natural and cultural setting of the Project Area and vicinity. The natural setting focuses on climate, topography, geology, and soil of the current and past environments. The cultural setting considers the prehistoric, Native American ethnographic and historic contexts associated with the Project Area. These contexts provide the basis for understanding the nature of historic properties and other cultural resources located within the Project Area.

3.1 ENVIRONMETNAL SETTING

The Project Area is located in the City of Menlo Park, which is a densely populated urban environment at the eastern edge of San Mateo County that has an estimated population of approximately 34,500 people. Located in the southeastern region of the San Francisco Bay Area, Menlo Park borders the cities of East Palo Alto, Palo Alto, and Stanford to the south, Atherton, North Fair Oaks, and Redwood City to the west, and the San Francisco Bay on the north and east.

The City of Menlo Park has a warm and temperate climate characterized by cool winters and moderate summers. According to the Western Regional Climate Center, Menlo Park's average annual temperatures range from about 71 degrees Fahrenheit (F) to 47.1 degrees F. Annual rainfall averages about 19.16 inches per year, with most rainfall occurring between October and April.

The Project Area is situated within a topographically flat area at the eastern edge of Menlo Park at approximately five feet above mean sea level (amsl), and is bordered on the north, west and south by single family houses, and on the east by Willow Road and the Facebook campus. The Hetch Hetchy aqueduct is located approximately 150 feet to the south of the Project Area. The Project Area is also located approximately 1.6 miles south of the San Francisco Bay; however, prior to development of the salt evaporation ponds along the southwestern bay shore, the reclamation of marshlands, and subsequent urban development, the Project Area was situated approximately 850 feet south of the historical tidal marsh and bay lands boundary. The nearest creek is San Francisquito Creek located 1.3 miles to the south (Figure 5).

According to the Geologic Map and Map Database of the Palo Alto 30' x 60' Quadrangle (Brabb et al 2000), the Project Area is situated on a landform that consist of Holocene-age (post 11,700 years before the present) basin deposit (Unit: Qhb) consisting of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to the bay mud, and also contains unconsolidated, locally organic, plastic silt and silty clay deposited in very flat valley floors (Brabb et al. 2000). According to the U.S. Department of Agricultura (USDA) Natural resources Conservation Services (NRCS) soil survey, the soil within the Project Area includes urban land-Orthents, reclaimed complex, 0 to 2 percent slopes, which is soil that occurs on tidal flats and has a variable surface profile (H1 – 0 to 40 inches) followed by silty clay (H2 – 40 to 60 inches) (USDA 2019).

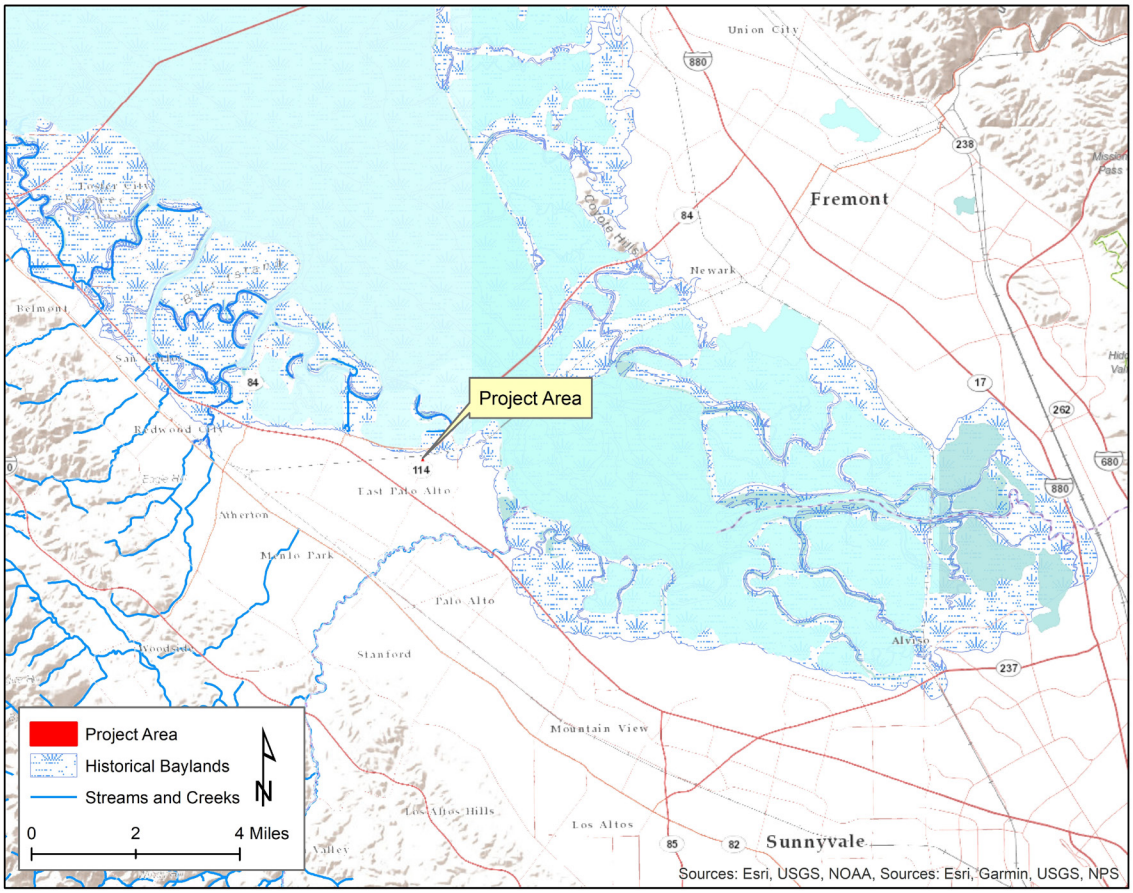

Figure 5: Environmental setting of the Project Area.

3.1.1 Paleo-environmental Setting

The paleo-environmental setting describes changes that have occurred in California's climate, vegetation and landscapes since the terminal Pleistocene. During the Terminal Pleistocene (13,500 - 11,700 cal BP[1]) there was a dramatic shift in vegetation as the climate became warmer compared to the previous period and temperate taxa such as alder, Douglas fir, oak and tanoak appeared. This was immediately followed by a major cooling trend, known as the Younger Dryas at about ca. 12,800 and 11,500 BP, at which time oak woodland and chaparral began to replace coniferous forest species. Also, during this time many of the large herbivores like mammoth, bison, ground sloth, horse and camel, as well as many large carnivores became extinct.

The San Francisco Bay formed after the onset of the Holocene (post 11,700 cal BP) due to a global warming trend that led to glacial melt and a global rise in sea level (Walker et al. 2009). During the Pleistocene, when it was colder, and more water was locked up in ice, the ocean level was lower than current levels and the California shoreline was located much farther to the west than it is today. At the

[1] cal BP denotes calibrated years before the present, with "present" defined as 1950.

time, the San Francisco Bay did not exist, and the Sacramento and San Joaquin Rivers converged before cutting through the Diablo range and the Golden Gate before draining into the Pacific Ocean near the Farallones Islands (Milliman and Emery 1968).

In the Early Holocene (11,700 – 8200 cal BP) cooler and drier conditions continued, but as temperatures rapidly increased, redwood and chemise chaparral taxa expanded, and pines and other conifers diminished. During this time, the ocean waters reached the Golden Gate and began filling the San Francisco Bay (Figure 6). The rise in the water level was rapid at first, but slowed after about 5,000 BP (Parsons 2003). The rising of the bay caused many of the rivers and streams that empty into the bay to aggrade their valleys by depositing sediment, gradually building up the ground surface and burying former surfaces. This process also buried most evidence of human occupation around the San Francisco Bay shoreline prior to this time (Parsons 2003).

The Middle Holocene (8200 – 4200 cal BP) was characterized by lower precipitation and greater temperatures, with warm and dry summers and increased seasonability (Adam and West 1983). As a result, pines, herbs and oak increased while redwood and cedar declined and retreated. Oaks expanded their overall range and moved upslope. The sea level stabilized and rich tidal marshes and extensive mudflats formed around the San Francisco Bay margin (Pestrong 1972).

In the Late Holocene (post 4200 cal BP) climatic conditions were cooler and dryer, but there were frequent shifts from cold to warm and enhanced ENSO[2] cycles that resulted in increased fluvial discharge, lower salinity levels and the formation of new marshes in the San Francisco Bay circa 3800 – 2450 BP (Goman et al. 2008; Starratt and Barron 2010). Beginning about 4,000 BP there was a rise in conifer-dominated assemblages and a decrease in oaks, due to an increase in moisture, but this trend reversed between about 1,300 to 700 BP due to an onset of warmer, dryer conditions, which characterized the Medieval Climatic Anomaly (MCA) that lasted from about 1150 - 600 BP. The MCA was marked by two severe drought periods separated by a period of greater precipitation (Schwitalla 2013), and was followed by the Little Ice Age (ca. 650-150 BP) that featured cool wet conditions (Schwitalla 2013), cooler sea surface temperatures (Hendy 2010), and an influx of sediment into the San Francisco Bay (Malamud-Roam and Ingram 2010). The extensive alluvial deposition that occurred during wet periods also buried archaeological sites that existed along the flood plains of creeks and rivers during this time (Lightfoot and Luby 2002).

In historic times (ca. 250 BP to present) the introduction of non-native plant species, the cessation of Native American land-management practices, including fire management, the onset of crop production and animal husbandry, industrialization, and urban growth and development have all contributed greatly to a changed landscape that no longer reflects the landscape inhabited by human populations that existed in prehistoric times.

[2] El Niño-Southern Oscillation (ENSO) is an irregularly periodic variation in winds and sea surface temperatures over the tropical eastern Pacific Ocean. The warming phase of the sea temperature is known as El Niño and the cooling phase as La Niña.

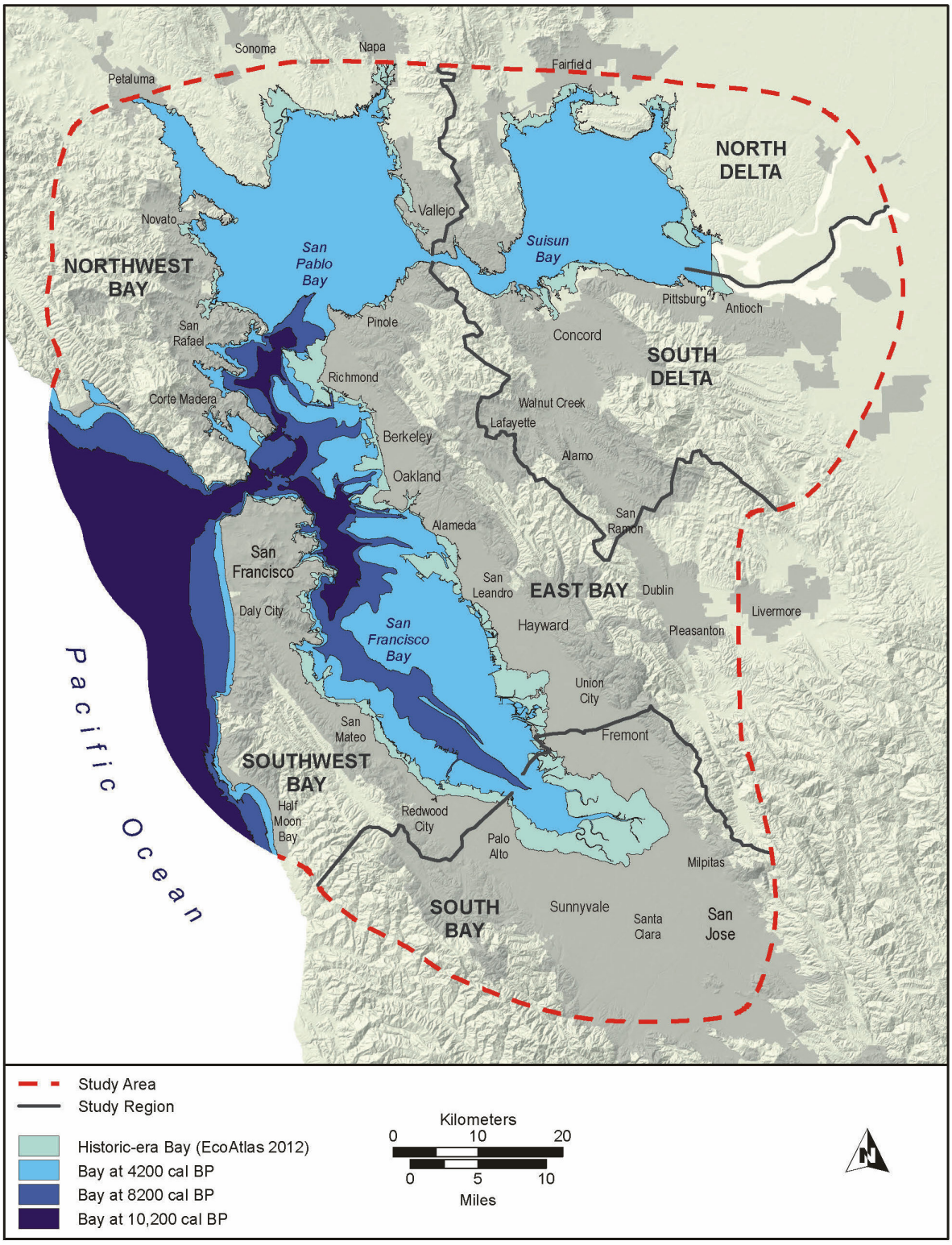

Figure 6: Evolution of the San Francisco Bay (after Meyer et al. 2013) (Byrd et al. 2017).

3.2 PREHISTORIC CULTURAL SETTING

The formation of the San Francisco Bay in the Middle Holocene allowed for dense populations to settle along the Bay Shore and neighboring areas because the freshwater marshes, salt marshes, mud flats and open waters of the San Francisco Bay were extremely productive in natural resources during prehistoric times (Lightfoot and Luby 2002). The marshlands and mudflats supported clams, mussels, oysters, crabs, and several fish species, and the open water supported green and white sturgeon, Chinook and Coho salmon, bat rays, thresher and leopard sharks, surf perch, jack smelt and marine mammals, such as sea otters, harbor seals, and sea lions. There were also numerous migratory water birds and shorebirds present, like ducks, geese, cormorants, loons and grebes (Lightfoot and Luby 2002). The surrounding terrestrial landscape contained extensive grassland and oak woodland that supported a variety of plant and animal resources. From these areas, Native Americans gathered a variety of nuts, seeds, berries, greens and tubers, and hunted large terrestrial animals like deer, elk and pronghorn antelope, as well as smaller fauna like jackrabbit, brush rabbit, squirrel, wood rat and quail (Lightfoot and Luby 2002; Moratto 1984). Historically, the Project Area was situated approximately 850 feet south of the historical tidal marsh and bay lands boundary and consisted of grassland-bay marsh ecotones that would have been favorable for human occupation.

3.2.1 Central California Taxonomic System (CCTS)

The Central California Taxonomic System (CCTS) is a scheme that chronologically classifies archaeological manifestations observed in central California. The CCTS is a sequence represented by broad spatial and temporal levels. It was initially based on archaeological research conducted in the Delta and Lower Sacramento Valley regions of California (Lillard et al. 1939; Lillard and Purves 1936; Heizer and Fenenga 1939), and was later expanded to include the Bay Area using information from earlier archaeological excavations at the Emeryville Shellmound (CA-ALA-309) in Alameda County, as well as the Ellis Landing Shellmound (CA-CCO-295) and Fernandez Site (CA-CCO-295) in Contra Costa County (Beardsley 1954). B.A. Gerow and others criticized the CCTS for being too rigid in its chronological sequence and for failing to separate cultural and temporal dimensions (Gerow 1954, 1974; Gerow with Force 1968). To address this problem, Fredrickson (1973, 1994) proposed a new taxonomic system for the North Coast Ranges, the San Francisco Bay, including some interior Contra Costa sites, and the lower Sacramento Valley using a cultural sequence based on Patterns, Phases and Aspects[3]. Within the San Francisco Bay area, three main cultural patterns are recognized: Windmiller, Berkeley (Lower, Upper and Meganos Aspect) and Augustine. In the past, Archaeologists conducting work in the San Francisco Bay Area used the CCTS, but Archaeologists conducting work in the northern Bay Area tended to use Fredrickson's Archaic-Emergent temporal sequence. However, a hybrid classification has emerged for the San Francisco Bay Area that uses the Early-Middle-Late Period sequence of the CCTS and the pattern-aspect-phase cultural sequence

[3] Patterns are units of culture having similar economic and technical manifestations, mortuary patterns, concepts of wealth, and trade practices. Phases are cultural manifestations within a Pattern bounded by time and region. Aspects are cultural units bounded regionally, but not temporally (Fredrickson 1973, 1974).

developed by Fredrickson, but is anchored in time by two radiocarbon-based sequences known as Scheme D and Scheme D2 (Groza 2002; Groza et al. 2011; Milliken et al. 2007). The current Scheme D is based on stylistic temporal variations in well-dated and widely traded shell bead types (Groza et al. 2011).

The following summary is a cultural chronology for the San Francisco Bay-Delta region that is based on the hybrid classification system organized by geologic time segments that include the Terminal Pleistocene (13,500 – 11,700 cal BP), Early Holocene (11,700 – 8200 cal BP), Middle Holocene (8200 – 4200 can BP), and Late Holocene (post 4200 can BP). The Late Holocene is further divided into shorter time periods using the Late Holocene Scheme D chronological sequence for the San Francisco Bay Area (Table 1) that is divided into the following time periods: Early Period (4200–2550 cal BP), Early/Middle Transition Period (2550–2150 cal BP), Middle Period (2150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), Late Period (685–180 cal BP), and Historic/Mission period (180-115 cal BP).

Table 1. Late Holocene Scheme D Chorological Sequence for San Francisco Bay-Delta Area following Groza et al. 2011 (Byrd et al. 2017: 3-20, Table 3).

CAL BP	EXTENT (YEARS)	CALENDAR YEARS	DATING SCHEME D (GROZA ET AL. 2011)		CULTURAL PATTERN [c]
			TEMPORAL PERIODS [a]	ARRAY OF DIAGNOSTIC *OLIVELLA* BEAD TYPES [b]	
180–115	65	AD 1770–1835	Historic/Mission (H)	Needle drilled (H)	na
430–180	250	AD 1520–1770	Late 2 (L2)	Lipped (Class E)	Augustine
685–430	255	AD 1265–1520	Late 1 (L1)	Normal sequin (M1a) Pendant (M2) Callus cupped (K1) End-ground (B2)	
930–685	245	AD 1020–1265	Middle/Late Transition (MLT)	Normal sequin (M1a) Split drilled/oval (C2/3) Split punched (Class D) Split amorphous (C7) Tiny saucer (G1) Wide sequin, occasional (M1d)	
1200–930	270	AD 750–1020	Middle 4 (M4)	Normal narrow saddle (F3a) Rectanguloid/Oval saddle-smooth edges (F4c/d) Full saddle-smooth edges (F4a/b)	Upper Berkeley
1365–1200	165	AD 585–750	Middle 3 (M3)	Small narrow saddle (F3b) Normal narrow saddle (F3a) Irregular saucer (occasional; G5)	
1530–1365	165	AD 420–585	Middle 2 (M2) [c]	Normal narrow saddle (F3a) Rectanguloid/Oval saddle-chipped edges (F2c/d) Full/Round saddle-chipped edges (F2a/b) Full saddle-smooth edges (F4)	
2150–1530	620	200 BC–AD 420	Middle 1 (M1)	Saucer (Class G) Split-drilled/oval (C2/3) Oval saddle (F1)	
2550–2150	400	600–200 BC	Early/Middle Transition (EMT)	Split beveled (?) – no wall beads? (C1)	
+4050–2550	1,500+	+2100–600 BC	Early (E)	Thick rectangle (Class L)	Lower Berkeley

Notes: [a] Periods are based on temporal duration of diagnostic shell bead styles; abbreviations in parentheses; [b] Listed by relative predominance; [c] Fredrickson (1994). Groza et al. (2011:Figure 3) has inconsistent start dates for EMT and Late 2 (but see page 7-15 and Figure 37 for revised start date for EMT)

3.2.2 Terminal Pleistocene (13,500 – 11,700 cal BP)

Solid evidence of human occupation in California during the Terminal Pleistocene (13,500 – 11,700 cal BP) is scarce and poorly understood; however, there have been some discoveries of isolated fluted projectile points California that are thought to be similar in cultural affiliation and age as the fluted points associated with the Clovis tradition dating to around 11,500 cal BP. While fluted points are rare in California, they have been documented at the Borax Lake site (CA-Lak-36) in Lake County (Meighan and Haynes 1970; Moratto 1984:82–85), at Tracey Lake in the Delta (Heizer 1938), at the Wolfsen mound (CA-MER-215) along the middle San Joaquin River in Merced County (Peak and Weber 1978), and in the Mojave Desert and coastal southern California (Byrd et al. 2017). No fluted points or archaeological deposits dating to the Terminal Pleistocene have been documented in the San Francisco Bay Area (Byrd et al. 2017). The paucity of Terminal Pleistocene archaeological remains is, in part, because populations were small, highly mobile, and left little evidence of their activities on the landscape. Furthermore, landscape changes, including sea level rise, erosion and localized subsidence along the coast has buried evidence of these sites (Byrd et al. 2017).

3.2.3 Early Holocene (11,700 - 8200 cal BP)

During the Early Holocene (11,700 – 8200 cal BP) semi-mobile hunter-gatherers utilized a wide range of plant and animal foods from marine, lacustrine, and terrestrial environments (Erlandson et al. 2007; Jones et al. 2002; Meyer and Rosenthal 1995; Moratto 2002). Populations that emerged in the San Francisco Bay-Delta region were mobile foragers, characterized by a "Millingstone culture" that used milling slabs and handstones, crude cores and core tools, and various types of large wide-stemmed and leaf-shaped projectile points (Milliken et al. 2007:114; Wiberg 2010:31). The settlement pattern is thought to be based on high residential mobility and limited exchange (Wiberg 2010:31). There are only four Early Holocene-age archaeological deposits documented in the San Francisco Bay-Delta region, including two at Los Vaqueros Reservoir (CA-CCO-696 and CA-CCO-637) in eastern Contra Costa County (Meyer and Rosenthal 1997, 1998), one in Solano County (P-48-000897) (Hildebrandt et al. 2012), and one in Alameda County (P-01-011556) (Meyer 2015), all of which were found in a buried context.

3.2.4 Middle Holocene (8200 – 4200 cal BP)

There is more direct evidence of occupation in the San Francisco Bay-Delta region during the Middle Holocene than in previous periods, as indicated by the 60 plus sites that have been documented in the San Francisco Bay-Delta region dating to this period (Byrd et al. 2017). Artifacts found in sites dating to this period include a variety of ground stone tools (mortars/pestles and metates/manos), side-notched dart points, cobble tools, and a variety of shell beads and ornaments (Fitzgerald 1993; Meyer and Rosenthal 1998). The presence of an extensive trade network by at least 5200 cal BP is indicated by the Type N *Olivella* shell beads that are found in sites across a large region, and obsidian from sources located the Napa Valley and eastern Sierra Nevada (Casa Diablo and Bodie Hills sources) that are found in sites located throughout the San Francisco Bay-Delta region (Byrd et al. 2017). The first evidence for use of the San Francisco Bay's estuarine resources is also indicated during this period by the presence of shell midden deposits in Marin County (CA-MRN-17), Contra Costa County (CA-CCO-474/H), and in San

Mateo County (CA-SMA-40) that date between 6300 and 5000 cal BP, and at least two sites in Alameda County (CA-ALA-307 and CA-ALA-566) that date to 4900 cal BP and ca. 5000 cal BP, respectively (Blake 2016; Byrd et al. 2017). Faunal remains indicate reliance on seasonal waterfowl, anadromous and freshwater fish, as well a variety of nuts and small seeds, including acorn, gray pine, bay, buckeye, red maids, goosefoot, farewell-to-spring, juniper, and manzanita berry (Wohlgemuth 2010), which suggest that a wide range of habitats were exploited throughout the year (Byrd et al. 2017), consistent with a mobile foraging pattern. In addition, a human skeleton identified within a site in east-central San Mateo County (CA-SMA-273) dating to the Middle Holocene was uncovered 3.7 meters (12 feet) below the surface of San Francisco Bay during dredging operations off Coyote Point (Leventhal 1987), thus indicating that sites from this period located along the Bay Shore may be buried under Holocene-age alluvium.

3.2.5 Late Holocene (4200 – 180 cal BP)

Due to the greater number of archaeological sites that have produced stylistic artifacts and radiocarbon dates, there is more information about Late Holocene occupation than in earlier periods, and as such the Late Holocene can be subdivided into more specific time periods. As such, the Late Holocene is generally divided into the Early Period (4200–2550 cal BP), Early/Middle Transition Period (2550–2150 cal BP), Middle Period (2150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), and Late Period (685–180 cal BP). "The Late Holocene is very well-documented in the Bay-Delta Area, with more than 240 radiocarbon-dated sites reflecting widespread occupation" (Milliken et al. 2007).

Early Period (4200 – 2550 cal BP)

The Early Period (4200–2550 cal BP) marks a shift from a mobile foraging pattern to a sedentary and semi-sedentary land use pattern along the Bay Shore and interior valleys (Milliken et al. 2007). This more sedentary way of life seems to have been in response to the availability new resources as the San Francisco Bay estuary matured, and an increased dietary reliance on acorns rather than hard seeds. As a result, populations in the San Francisco Bay region increased in number, and the social organization became more complex, which is evidenced by mortuary practices and an increase in ornamental grave associations, regional symbolic integration and the establishment of trade networks. "Bay margin sites reveal a strong emphasis on marine shellfish, marine fishes, and marine mammals…In contrast, interior sites emphasized freshwater fish and shellfish along with terrestrial mammals. Nuts, berries, and small seeds appear to have been particularly important plant foods" (Byrd et al. 2017). Cultural patterns that emerged in the San Francisco Bay region during this period include Windmiller in the Delta Region and Lower Berkeley along the Bay Shore. Artifacts that typify the Early Period include corner-notched, concave-based, lanceolate, and side-notched style projectile points, cut marine shell (*Olivella* sp.) beads that are often found in a mortuary context, mortars and pestles, and more obsidian from Napa Valley sources than Annadel obsidian from Sonoma County (Milliken et al. 2007). The Early Period was also marked by significant climatic changes during which warmer and drier conditions led to desiccation of lake basins in southern California (Schwitalla 2013).

Middle Period (2150–930 cal BP)

The Middle Period (2150–930 cal BP) is marked by a population increase and a greater level of sedentism, as indicated by evidence of permanent villages used most of the year (Milliken et al. 2007). The population increase led to restricted mobility, which in turn led to resource intensification, increased cooperation and a greater level of social complexity (Milliken et al. 2007). In the latter half of the Middle Period and the Middle/Late Period Transition (930–685 cal BP), a dramatic cultural disruption occurred, marked by changes in shell bead types, settlement patterns and food resources (Milliken et al. 2007). The Berkeley Pattern, which developed from the preceding Lower Berkeley Pattern, was well established by the Middle Period (Moratto 1984). Berkeley Pattern traits typically include tightly flexed burials, with fewer grave offerings and no preference toward orientation. Cremations are occasionally encountered and are associated with more grave goods than flexed burials, a mortuary treatment suggesting differentiation in wealth or status. Burial artifacts typically include *Olivella* saddle and saucer beads and *Haliotis* pendants. Berkeley Pattern sites are also characterized by utilitarian objects that include numerous mortars and pestles, which imply greater reliance on nuts and seeds, as well as a highly-developed bone tool industry. New types of bone tools, such as the single-barbed bone fish spear, indicate a greater reliance on fish and marine mammals like sea otter, seal and sea lion (Elsasser 1978; Hildebrandt and Jones 1992). Shellfish collecting was also very important. This is indicated by the deposition of large quantities of shell, mostly mussel, which make up a good portion of shellmound constituents. Hunting is implied by spear and dart-sized projectile points, which were propelled using an atlatl, as well as high frequencies of deer and elk remains (Beardsley 1954; Hildebrandt and Jones 1992).

Middle/Late Transition Period (930–685 cal BP)

Starting at the end of the Middle Period and continuing in the Middle/Late Period Transition many Bay Shore residential sites were abandoned and new residential sites were established (Eerkens and Bartlink 2019; Lightfoot and Luby 2002). The reasons postulated for the abandonment of shellmound sites along the Bay include variable climate conditions and the availability of marine resources due to the MCA, a shift towards greater reliance on acorns rather than shellfish, intrusion of Patwin speaking people into the North Bay, or the return to a semisedentary settlement system whereby year-round occupation of shellmounds gave way to seasonal use of interior localities (Ingram 1998; Lightfoot and Luby 2002; Schwitalla 2013). It is notable that there appears to have been major cultural changes happening throughout central California during this time that include increases in population density, shifts in the nature of interpersonal violence, a decrease in the average age of weaning, and changes in settlement patterns (Eerkens and Bartlink 2019).

Late Period (685–180 cal BP)

Occupation during the Late Period (685–180 cal BP) is well-documented in the San Francisco Bay-Delta region, and is thought to be associated with a new level of sedentism, status ascription, an increase in ceremonialism, and regional trade. It appears that an economic relationship was maintained among the many small autonomous socio-political groups called tribelets, and trade was frequent between coastal

groups, valley groups and Bay Shore groups (Hylkema 2002). Sites from this time period are associated with the Augustine Pattern and artifacts typically include large, well-formed mortars, pestles and hopper mortars that indicate a continued reliance on acorns, flanged steatite smoking pipes, toggle harpoons, baked clay figurines, clamshell disk beads, small projectile points such as the Rattlesnake corner-notched and Desert side-notched points that suggest the use of the bow-and-arrow (use of the bow and arrow is first documented in the region circa 700 cal BP) in oppose to the atlatl that was used previously in conjunction with spear points, steatite and magnesite beads and tubes, *Olivella* callus cup beads, and *Haliotis* banjo shaped pendants. The manufacture of clamshell disk beads, which were used as exchange currency with a standardized value, seems to have centered primarily on the Santa Rosa Plain in Sonoma County and within the Napa Valley. The burial practice of cremation was also introduced in the North Bay during this time (Milliken et al. 2007). These shifts in technology, artifact types and mortuary practices appear to indicate that another upward cycle of regional integration took place during this period. However, this cycle was stopped short by Spanish colonization and missionization of Native populations.

3.3 ETHNO-HISTORIC SETTING

The Project Area is situated within a territory that was occupied by the Costanoan (also known as Ohlone[4]). The first instance of European contact with Costanoan people occurred in late 1769 when Gaspar de Portola "discovered" the San Francisco Bay, the initiating event of European colonization of the area (Milliken 1995). Early accounts documented that there were approximately 10,000 Costanoan people living around the Bay. However, with the arrival of the Spanish came the establishment of missions with a concerted effort to convert the Native population to Catholicism and the introduction of European disease for which the Natives had no immunity, and these factors quickly led to the demise of Bay Area populations (Milliken 1995). According to mission records, the Costanoan organization was severely disrupted by 1810, and by 1832 only 2,000 Costanaon people had survived (Cook 1943). Much of the ethno-historic literature pertaining to the Costanoan comes from the diaries of early Spanish explorers describing their incursions into the San Francisco Bay region between the years 1769 and 1776. This information is supplemented by early ethnographers who located Native informants and obtained information about language, territory, material cultural, political and social organization and subsistence practices.

The word *Costanoan* is from the Spanish word Costaños, which means "coast people," and refers to a language family not a political entity. Modern descendants of the Costanoan prefer to be called Ohlone, a name derived from a Native coastal village by that name (Heizer and Elsasser 1980). The two names (Costanoan and Ohlone) are used interchangeably in much of the ethnographic literature. The Costanoans spoke a language considered one of the major subdivisions of the Miwok-Costanoan, which belonged to the Utian family within the Penutian language stock (Shipley 1978). It has been postulated

[4] Modern descendants of the Costanoan prefer to be called Ohlone, a name derived from a Native coastal village by that name (Heizer and Elsasser 1980).

that Penutian-speaking ancestral Costanoans moved into the region and replaced or assimilated with an earlier Hokan-speaking population as early as 4,500 B.P. (Moratto 1984).

Costanoan denotes a family of eight languages, four of which were spoken by people occupying the San Francisco Bay area (Figure 7). Each language group was subdivided into smaller village communities or tribelets (Figure 8). These independent political entities occupied specific territories, eight to twelve miles across and defined by physiographic features (Milliken 1995). Each tribelet controlled access to the natural resources within its territory, which typically required that there be one or more primary villages and numerous smaller villages used seasonally for resource procurement. Usually, a common language was shared with one or more neighboring tribelets (Heizer and Elsasser 1980). The San Francisco peninsula, including the area of Menlo Park was occupied by the *Ramaytush*, who numbered about 1,400 and consisted of about twelve tribelets, including the *Lamchin* who occupied the area that extended from Belmont south to Redwood City and included interior valleys to the west (Levy 1978:485; Milliken 1995:246-247). Five *Lamchin* villages are mentioned in historic mission records, the most important of which was "Cachanigtrac, alias Las Pulgas" that was located on Pulgas Creek in the present-day city of San Carlos. The other villages included Ussete, Guloinsisac, Oromstac, and Ssupichom (Milliken 1995:247).

The largest village in a tribelet area was occupied by a chief (Heizer and Elsasser 1980). Both men and women acted as chief, who was responsible for organizing activities; however, "Costanoan ideas of personal freedom precluded the existence of any type of institutionalized coercive power" (Levy 1978).

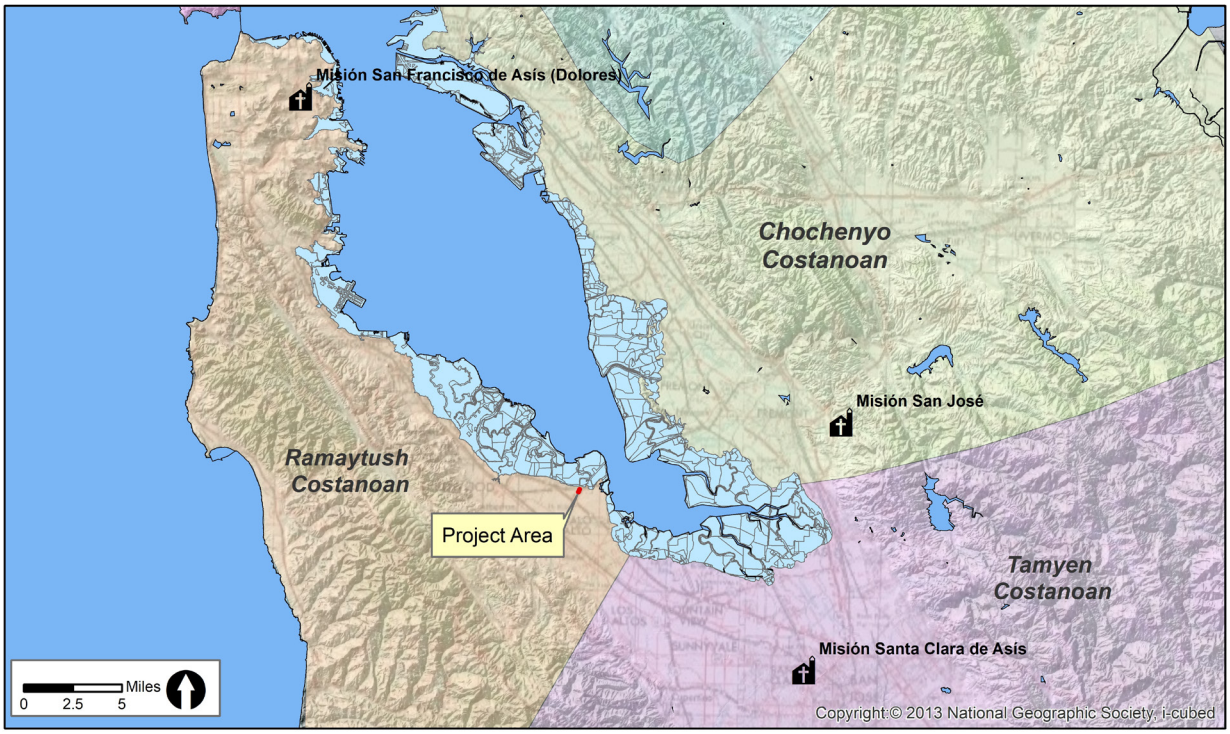

Figure 7: Ethno-historic tribal communities in the vicinity of the Project Area.

Figure 8: Tribelets occupying the southwest area of the San Francisco Bay at the time of Spanish settlement in 1776 (adapted from Milliken 1995, and East Bay Regional Park District map of tribal territories).

The Costanoan were successful hunter/gatherers who utilized a wide range of resources in a very favorable environment. They practiced specialized horticultural techniques, including the use of fire, that increased the numbers and health of the numerous plants and animals on which they relied. A variety of plant foods were gathered on a seasonal basis. Important plant foods included the nuts of coast live oak, valley oak, California black oak, tanbark oak, buckeye, California laurel and hazelnuts. The acorns from oaks were the most important plant food, and were collected in large quantities and stored. They were processed by removing the hard-exterior shells, pulverizing the inner nut in a mortar bowl (basketry, wood, and stone mortars of various types were used), then leaching with water to remove the tannins. Buckeyes were made edible in much the same way. Seeds that were roasted before consumption included dock, tarweed, chia, and gray pine. Hazelnuts and California laurel nuts were also eaten, as well as seeds from a number of other plants. Many types of berries, including blackberries, elderberries, strawberries, Manzanita berries, gooseberries, madrone berries, grapes and toyon berries were also collected and eaten, as well as a number of tubers and roots such as wild onions, cattail roots, amole, hog fennel and wild and tubers (Levy 1978). In the hills and valleys some mammals that were hunted included deer, elk, antelope, bear, rabbit, squirrel, woodrat, mouse and mole.

The bow-and-arrow constituted a part of the hunting technology. Both unbacked and sinew backed bows ranging from 3 to 4½ feet long were used to launch arrows fitted with lithic or bone points. Bowstrings were manufactured from animal sinew or vegetal fibers. The typical arrow was a compound arrow consisting of a cane shaft fletched with three feathers and a hardwood foreshaft to which a

projectile point was usually, but not necessarily, attached. Hunting arrows seem to have been rather long in comparison to war arrows. Asphaltum was used as the adhesive for fletching (Levy 1978; Switzer 1974).

Basketry was a well-developed craft and baskets were used for the collection, preparation and storage of food, and for a variety of other reasons. Other kinds of baskets included mush bowls, cooking baskets, parching trays, storage baskets, sifters, fish traps, trinket containers, canteens, and possibly cradles (Levy 1978). The Costanoan also constructed "balsa" boats using about twenty bundles of tule reeds, also called bulrushes, tied together with cordage made from milkweed, Indian hemp or nettle, that were stabilized with Willow poles. They were propelled using double-bladed wooded paddles and anchored with stones tied to a rope (Font 1930; Levy 1978). Boats were used to navigate the Bay and major river systems, and during hunting and gathering forays. The presence of archaeological sites on islands in San Francisco Bay suggest the use of balsa boats as early as 3,400 BP (Morgan and Dexter 2008).

3.4 HISTORIC SETTING

The following historic setting is intended to provide an overview of the broader historic themes, as well as specific historic contexts potentially associated with any archaeological resources that could be located within the Project Area.

3.4.1 Spanish Period (1772 - 1821)

The discovery of San Francisco Bay was due to the determination of King Carlos III of Spain to occupy and colonize "Alta California"[5], and was the joint work of both church and state. The Spanish entered present-day San Mateo County as early as 1769 with the Portola expedition, and was likely the first historic contact with the native people who occupied the peninsula. The expedition encountered *Lamchin* men, but may not have passed through any *Lamchin* villages (Milliken 1995:34). The Portola expedition was soon followed by the Fages-Crespi expedition in 1772 that traveled from Monterey up the Santa Clara Valley then along the Fremont Plain, east of the San Francisco Bay, to the delta area before heading back to Monterey through the San Ramon Valley and Pleasanton areas (Cook 1957). The expedition of Juan Bautista de Anza accompanied by Father Pedro Font (Anza-Font expedition) traveled through the same area four years later, in 1776; however, this expedition visited a small *Lamchin* settlement in present-day Belmont on Laurel Creek (Milliken 1995:52-53). The Anza-Font expedition consisted of Lieutenant Jose Moraga, Father Crespi, eleven soldiers and two servants (Mildred et al. 2002). These expeditions resulted in establishment of the Presidio of San Francisco and Mission San Francisco de Asis (1776) in present-day San Francisco, Mission Santa Clara de Asis (1777) in present-day Santa Clara, and the Mission San Jose de Guadalupe (1797) located in present-day City of Fremont. The arrival of the Spanish and the establishment of missions led to the rapid demise of the Costanoan

[5] *Alta California* was a polity of New Spain founded in 1769 and became a territory of Mexico after the end of the Mexican War of Independence on 1821.

population and culture, as efforts to missionize the Natives were strong, and diseases were introduced by early explorers and missionaries for which the Natives had no immunity.

During this time, the Project Area was included in a 35,240-acre land grant, called *Rancho de las Pulgas*, that was given in 1795 by Spanish Governor of Alta California, Diego de Borica, to José Darío Argüello who was the commanding officer of the Monterey, San Francisco, and Santa Barbara presidios. The rancho known as "Las Pulgas" appears to have obtained its name due to an incident that happened on October 27, 1769 when the Portola Expedition camped near the ocean shore in an abandoned Indian village at the mouth of Purisima Creek. According to a diary written by Miguel Costanso, the Army Engineer with the Portola Expedition, the campsite was infested with "las pulgas," which when translated means fleas (Miguel Costansó 1770). The *de las Pulgas* land grant was bounded by San Mateo Creek on the north and San Francisquito Creek on the south, and encompassed present-day cities of San Mateo, Belmont, San Carlos, Redwood City, Atherton, and Menlo Park.

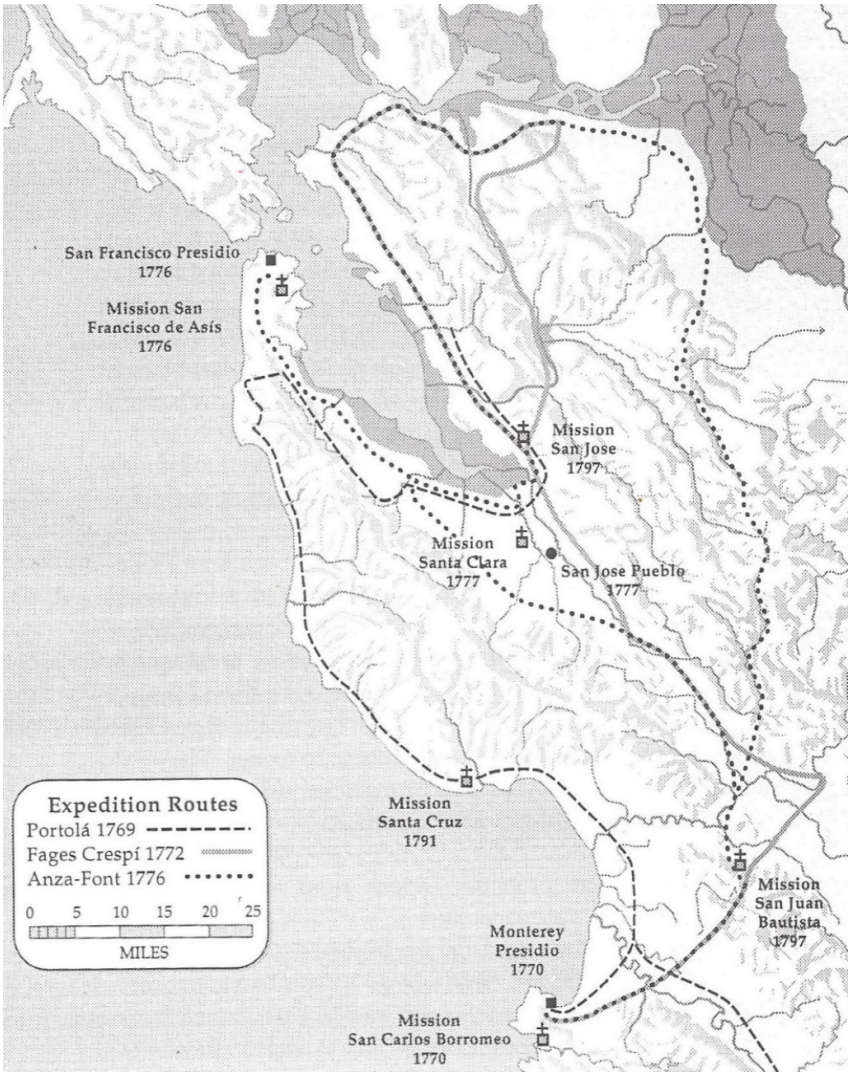

Figure 9: Routes of three key Spanish incursions into the San Francisco Bay Area between 1769 and 1776, and the locations of Spanish settlements through 1810 (Milliken 1995:33).

3.4.2 Mexican Period (1821 – 1848)

In 1821, Mexico won its independence from Spain with the signing of the Treaty of Córdoba and took possession of Alta California, marking the end of the Spanish period and the beginning of the Mexican period in Alta California. Many changes occurred throughout California under Mexican rule due to the lack of strong oversight and military rule imposed by the Spanish. Under the new Mexican Republic, missions were secularized, which resulted in Mission land and property being dissolved. New opportunities for trade also arose, as foreign ships that had previously been held off by Spanish guarded military ports were allowed to dock and sell tea and coffee, as well as manufactured goods; and the taxes on these imported goods became the main source of revenue for the Mexican government in Alta California. Likewise, products produced in Alta California were exported, which bolstered the hide and tallow trade, which became the primary business activity in Alta California during this time. The Mexican colonial authorities also permitted and encouraged foreigners to relocate and settle in Alta California and as a result the population of Euro-Americans increased. As the population grew, and the hide and tallow trade became a main source of revenue, ranchos were established that included large tracks of land given to politically prominent Mexican citizens and military leaders.

In 1835, Mexican Governor José Castro granted four square leagues of the original *Rancho de las Pulgas* to José Darío Argüello's family that included Maria Soledad Ortega de Argüello and Don Luis Antonio, who was the son of José Darío Argüello (Bancroft 1886).

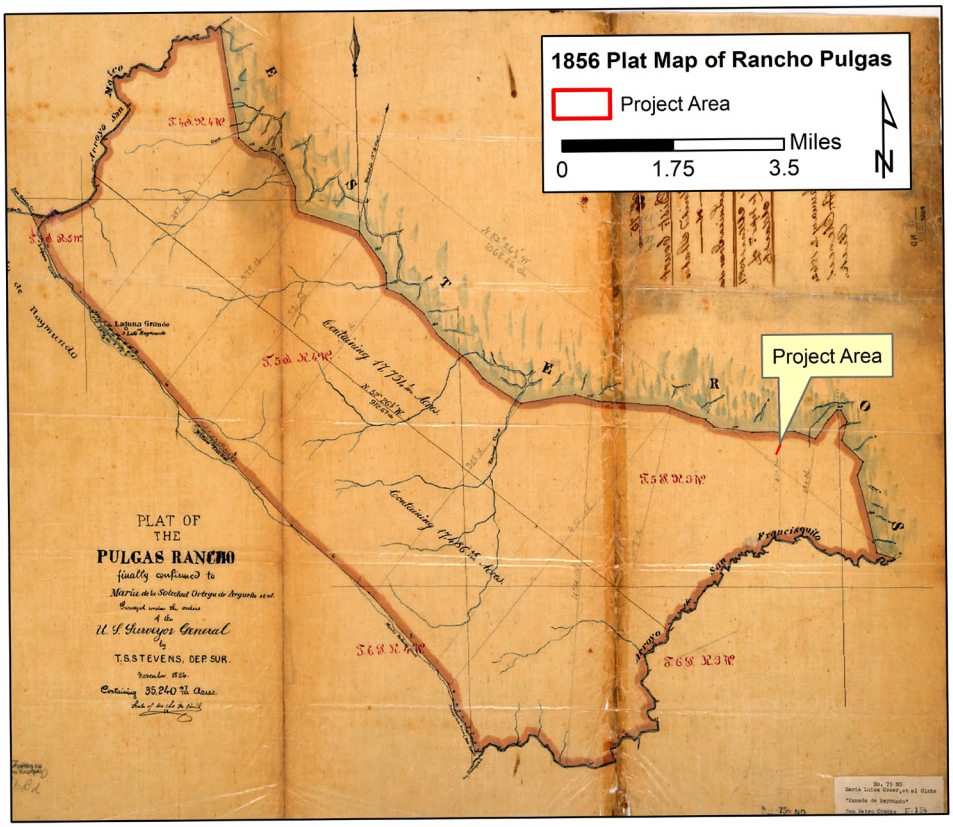

Figure 10: 1856 Map of Rancho de las Pulgas showing Project Area location in red.

3.4.3 American Period (Post 1848)

The beginning of the American Period in California is marked by the end of the Mexican-American War in 1848 when the U.S. signed the Treaty of Guadalupe Hidalgo and took possession of the territories that included California, Arizona, Colorado, Nevada, Utah, Wyoming, and New Mexico. The Treaty of Guadalupe Hidalgo provided the resident Mexicans their American citizenship and guaranteed title to land granted to them in the Mexican period. However, within weeks of the treaty signing, a massive influx of settlers began to arrive in California due to the discovery of gold in 1848. Once the initial rush (1848 – 1850) was over, there was a high demand for agricultural land, as people realized that money could more easily be made from raising and selling food to satisfy the needs of a rapidly growing population. The ideal growing conditions in California made it a very attractive place to settle and the potential for wealth drew numerous settlers to the state from all over the U.S., as well as Scotland, Ireland, England, Germany, and France. The massive influx of new settlers soon gave rise to land disputes as they began to move onto vacant rancho land that they perceived to be available for settlement. To resolve these disputes, the U.S. Congress passed the California Land Act of 1851 that established a three-member Public Land Commission to determine the validity of prior Spanish and Mexican land grants. It required landowners who claimed title under the Mexican government to file their claim with the Commission within two years. Although the Commission eventually confirmed most of the original Mexican land grants, the cost of litigation to defend their land titles forced many Californios[6] to sell their land and cattle, and more often than not their land was lost to newly arriving American settlers and the lawyers who were hired to defend land title claims (Olmsted 1986).

As required by the Land Act of 1851, a claim for *Rancho de las Pulgas* for twelve square leagues was filed in 1852 with the Public Land Commission by heirs of Luis Antonio Argüello. The Land Commission rejected the claim for twelve square leagues, but confirmed the claim for four square leagues. A claim filed by Gervasio Argüello with the Land Commission in 1852 was rejected; and a claim filed by Mowry W. Smith with the Land Commission in 1853 was rejected as well. In 1857, following the 1856 official survey, the grant was patented to Maria Soledad Ortega de Argüello (one undivided half), Jose Ramon Argüello (one undivided fourth), Luis Antonio Argüello (one undivided tenth), and S. M. Mezes (three undivided twentieths). Simon Monserrat Mezes was the Argüello family's lawyer who handled the land patent process (Bancroft 1886).

3.4.4 History of Menlo Park

During the beginning of the Early American Period (1848-1880), the California Gold Rush was in full swing and settlers that made their way to California began squatting on the vast and mostly unoccupied ranchos lands. Many of the new settlers occupied and improved these lands and then petitioned the courts for legal ownership. In some cases, these legal challenges proved exceedingly difficult and costly for the owners of the land grants, and as a result many Californios lost their land to newly arriving

[6] Spanish-speaking residents of Alta California during the Spanish and Mexican era (1769-1848).

settlers. By the time gold fever had slowed, the Argüello land had become an attractive place for settlers who were drawn to the area by the prospering logging industry.

In 1851, two settlers by the names of Dennis J. Oliver and Daniel McGlynn purchased 1,700 acres (conflicting documentation by the Menlo Park Historical Association states that the purchase may have been only 640 acres) of *Rancho de las Pulgas* land from the Argüello family. The land was situated along an area that bordered near the El Camino Real and within present-day Menlo Park. Oliver and McGlynn each built a house on the land and constructed an arched gate along the main entrance of their cattle ranch (https://sites.google.com/site/mphistorical/). At the top of the gate was written the words, *Menlo Park*, which was the name given to the land in honor of the men's hometown of Menlough, County Galway, Ireland.

By the early 1860s, there was talk about a peninsula railroad line that would run from San Francisco to San Jose, making a stop along the way just north of the San Francisquito Creek near the Menlo Park arch. In 1863, the Southern Pacific Railroad (SPRR) was built and the new railroad station was given the name "Menlo Park" (City of Menlo Park 2013). The SPRR station was constructed across and along present day Merrill Street. Menlo Park was soon a favorite stop for weekend city dwellers and folks that were seeking a mild climate. As a result, many residents from San Francisco built grand estates for their summer residences (https://sites.google.com/site/mphistorical/). During this same period the planned area of Menlo Park began in a development along Oak Grove Avenue between the railroad station and El Camino Real. By 1870, only twelve buildings were located in what was known as downtown Menlo Park near the railroad station, El Camino Real, and Oak Grove Avenue, which included two general stores, three hotels, livery stables, saloons, and three blacksmith shops. The first store in Menlo Park was on the corner of Oak Grove Avenue and El Camino Real. The first hotel in town was known as the Menlo Park Hotel, located on Oak Grove Avenue near the railroad tracks. The *Menlo Park* sign was reconstructed at least twice, once in 1886 after the first one blew down, then again in 1905; the sign was finally destroyed in 1922 during an automobile accident. By the early 1900s, the population in Menlo Park remained low and was estimated to be only 400 citizens.

In 1905, electric lights arrived in Menlo Park, and in 1916 a new San Mateo County library opened in the new Central Public School. However, Menlo Park's population had changed very little since the turn of the century, and the area was still considered a farming town with less than 2,300 people during this time. That all changed in 1917 when the U.S. entered World War I (WWI) and the U.S. Military chose Menlo Park as a location to train solders. The 1,000-acre Johnson Dairy farm was the location picked to set-up the training camp, called Camp Fremont; however, the government eventually leased 25,000 acres of land, 1,300 acres of which were used for tent billets and nearly 1,000 buildings for mess halls, storage, headquarters, and recreational facilities. Approximately 40,000 soldiers trained at the camp. The camp was generally bounded by El Camino Real, Valpariso, Santa Cruz Avenue, and San Francisquito Creek (Menlo Park Historical Association 2019). The arrival of the military brought sudden changes and growth to Menlo Park.

In 1917, the El Camino Real was paved for the first time, construction was also completed on Menlo Park's first gas and water services, and there was a significant increase in businesses to facilitate the

thousands of soldiers that trained at Camp Fremont during WWI. After the armistice in 1918, Camp Fremont was dismantled and most of all the materials, including steel from buildings, was sold off as scrap metal (https://www.youtube.com/watch?v=15M3_BbWJ6s).

In 1927, Menlo Park was incorporated within a 1.2 square mile radius and with a population of 2,200 (www.ancestory.com). By 1940 the population was growing steady, but again slowed when it had reached approximately 3,200 citizens. After the end of WWII, like in many areas, rapid growth occurred in Menlo Park and the population rose to 8,000, and the City's boundaries doubled to 2.1 square miles. Today Menlo Park covers an area that is 9.8 square miles and includes 7.6 square mile of water that is considered part of Menlo Park. As of 2015, the population of Menlo Park was 33,449 (www.ancestory.com).

4.0 RECORDS SEARCH AND REVIEW

A record search was conducted that included a review of information available at the Northwest Information Center (NWIC) of the California Historical Resources Information Systems (CHRIS), and a review of historic maps and geoarchaeological, soils and geologic data for the Project Area. The purpose of the NWIC record search was to determine if the Project Area has been previously evaluated for cultural resources, and to review previous cultural resource studies conducted within 0.25-miles of the Project Area as well as records pertaining to archaeological resources located within one mile of the Project Area. Historic maps, soils reports, geoarchaeological studies, and geologic maps were reviewed to assess the potential for archaeological resources to be present below the existing buildings and pavement. The results of the record search and review are presented below.

4.1 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

EDS Principal Archaeologist, Sally Evans, M.A, RPA completed a record search at the NWIC on July 17, 2019 (NWIC File No. 19-0107). According to information on file at the NWIC, the Project Area has not been previously surveyed for cultural resources; however, there have been eight (8) cultural resource studies previously completed within 0.25-miles of the Project Area that include those listed in Table 2 below.

Table 2: Previous Cultural Resource Studies Completed within 0.25-Miles of the Project Area.

NWIC	Year	Title	Authors
3021	1976	An archaeological reconnaissance of the 100.6 acre Raychem Corporation properties in Menlo Park, California (letter report)	Dietz, Stephen A.
4866	1978	The Subsurface, Secondary Testing of the Hiller Site, SMA-160.	Cartier, Robert
7346	1985	Archaeological Survey Report landscaping project along Routes 84 and 101 in San Mateo and Alameda Counties, 04-SM/Ala-101, 84, 04253-033231 (Caltrans).	Offermann, Janis K.

NWIC	Year	Title	Authors
19711	1996	The Hiller Site: CA-SMA-160, Archaeological Burial Recovery Program Willow Park VIII in the City of Menlo Park.	Cartier, Robert
20692	1997	Archaeological Field Inspection of the Proposed Willow Avenue at Hamilton Retail Center, Menlo Park, San Mateo County, California.	Miley Paul Holman
36481	2009	Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California.	Adrian Whitaker, Phil Kiajankoski, and Jack Meyer
37241a		Historic Property Survey Report (HPSR) for the Proposed Metalbeam Guardrail Upgrade Project at Various Locations across San Mateo County, California.	Benjamin J. Harris
37241b	2010	Archaeological Survey Report (ASR) for the Proposed Metalbeam Guardrail Upgrade Project at Various Locations across San Mateo County, California.	Benjamin J. Harris
37241c	2010	Environmentally Sensitive Area (ESA) and Archaeological Monitoring Area (AMA) Action Plan for Two Location Along State Route 1, San Mateo County, California.	Benjamin J. Harris
37241d	2010	Extended Phase I Testing at CA-SMA-97 for the Proposed Metalbeam Guardrail I-5 Upgrade Project, San Mateo County, California.	Benjamin J. Harris
38063	2009	Smart Corridors Geoarchaeological Sensitivity Research.	Neal Kaptain

4.1.1 Known Archaeological Resources in the Vicinity

The records search conducted at the NWIC revealed the presence of ten cultural resources within one mile of the Project Area, including nine prehistoric archaeological sites, one of which also has a historic-period component, and one historic district. These resources are listed in Table 3 below and shown on the map in Figure 11.

Table 3: Archaeological Sites in the Vicinity of the Project Area.

Primary	Trinomial	Description	Distance from Project Area
P-41-000080	CA-SMA-77	Prehistoric Archaeological Site (University Village): habitation site with human burials and artifacts such as charmstones, mortars, pestles, sinkers, chert points, etc. Site found within a buried context.	0.9 miles east
P-41-000160	CA-SMA-160	Prehistoric Archaeological Site (Hiller Mound): habitation site with human burials and artifacts such as red Franciscan chert, ground stone, fire-cracked rock, pestles, shellfish fragments, etc.	600 feet northeast
P-41-000233	CA-SMA-235	Prehistoric Archaeological Site: site with artifacts such	0.5 miles

Primary	Trinomial	Description	Distance from Project Area
		as an obsidian projectile point, bowl mortar fragment, burnt clay, burned and unburnt bone, chert flakes, and shellfish, including oyster (*Ostera luridia*), California horn snail (*Cerithidea californica*), mussel (*Mytilus edulis*), and clam (*Protothaca staminea*).	east
P-41-000244	CA-SMA-248	Prehistoric Archaeological Site (Tarlton Site): habitation site with dark friable midden soil containing artifacts such as FCR, projectile points, chert flakes, and shellfish, including California horn snail (*Cerithidea californica*) and oyster (*Ostera luridia*).	0.47 miles east/northeast
P-41-000258	CA-SMA-262	Prehistoric Archaeological Site (Glen Way): site containing at least one human burial found within an ashy grey midden soil. Artifacts found in association with the burial include two abalone (*Haliotis rufescens)* shell pendants, fragment of unworked abalone shell, one Olivella shell bead, baked clay with basketry impression, and a fragment of fire-cracked ground stone.	0.78 miles southeast
P-41-00263	CA-SMA-267	Prehistoric Archaeological Site: site containing at least one human burial. Artifacts found in association with the burial include one Franciscan cert flake tool.	0.61 miles southeast
P-41-002076	CA-SMA-386/H	Archaeological Site that has both a historic and prehistoric component. Historic component includes two historic refuse dumps likely associated with the Carnduff farmstead, and the prehistoric component includes a habitation site marked by a moderate scatter of debitage, bifaces, ground stone, and shell (mostly *Cerithidea*, but also some *Mytilus*, and *Macoma* noted). Possible middle prehistoric period occupation.	0.56 miles northeast
P-41-002143	CA-SMA-375	Prehistoric Archaeological Site (Bay Road Courtyard Site): site containing at least one human burial and marked by sparse scatter of shell (*Cerithidea*) and one pestle.	0.9 miles east/southeast
P-41-002292	-	Prehistoric Archaeological Site (Willow Road Shell Scatter): site consist of a scatter of shell fragments and one bone fragment.	0.24 miles south
P-41-002351	-	Historic District (Ravenswood Salt Works District): seven remnant salt ponds associated with the Ravenswood Salt Works with a period of significance from 1910s to 1953.	0.22 miles north

Figure 11: Archaeological Sites in the Vicinity of the Project Area.

4.2 ARCHAEOLOGICAL SENSITIVITY

A review of historic maps, aerial photographs, as well as geoarchaeological, soils and geologic data for the Project Area was conducted to better understand the potential for the Project Area to contain archaeological resources.

4.2.1 Prehistoric Archaeological Site Sensitivity

According to the record search information presented above, there are at least nine prehistoric archaeological sites that have been identified within one mile of the Project Area, five of which are known to contain human burials; and these sites have been found in an environmental setting that is similar to the Project Area, namely due to being in close proximity to the historical margins of the San Francisco Bay and its marshlands.

While most archaeological sites located within one mile of the Project Area display surficial evidence of prehistoric occupation, at least one site (CA-SMA-77) was found within a buried context. Therefore, information about the geology and soils associated with the Project Area was reviewed to identify the potential for buried prehistoric archaeological resources to be present. Determining the geologic age is important because Holocene-age landforms commonly contain Holocene-age buried soils (i.e., former land surfaces, also known as paleosols) that have the potential to contain buried prehistoric archaeological resources; and certain landforms such as alluvial fans, floodplains, and areas along rivers and streams, are more likely to contain buried prehistoric archaeological sites than other types of landforms (Meyer and Rosenthal 2007).

According to the geologic map of the Palo Alto 30' x 60' Quadrangle (Brabb et al 2000), the Project Area is located on Holocene-age (post 11,700 years before the present) basin deposit (Unit: Qhb) consisting of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to bay mud (Brabb et al. 2000). The soil within the Project Area includes urban land-Orthents, reclaimed complex, 0 to 2 percent slopes, which appears to be artificial fill soil (USDA 2019). According a geoarchaeological overview of the nine Bay Area counties (Meyer and Rosenthal 2007), large areas of artificial cut/fill soils are mapped in San Mateo County along the margins of San Francisco Bay. The cut or fill areas were formed during the historic or modern period (i.e., <150 years) as a result of urban development; thus, archaeological sites of almost any age may have been destroyed through artificial cutting, redeposited by artificial filling, or completely buried by artificial fill deposits (Meyer and Rosenthal 2007).

Due to the Project Area's environmental setting, the presence of several prehistoric archaeological sites in the vicinity of the Project Area, and the potential for the Project Area to contain buried prehistoric archaeological resources, the Project Area appears to have a high prehistoric archaeological site sensitivity.

4.2.2 Historic Archaeological Site Sensitivity

The following historic maps and aerial photographs were reviewed to determine the potential for historic-era archaeological resources to be located within the Project Area.

- 1856 Plat Map of Rancho Pulgas
- 1894 Official Map of San Mateo County, California
- 1899 Palo Alto, Calif. [Quadrangle] Topographic map, 15-minute series.
- 1943 United States War Department, Corps of Engineers Palo Alto, Calif. [Quadrangle]. Topographic map, 15-minute series.
- 1948 United States Department of the Army, Corps of Engineers Palo Alto, Calif. [Quadrangle] Topographic map, 15-minute series
- 1961 Palo Alto, Calif. Quadrangle map, 7.5-minute series.
- Aerial photograph from 1930, 1941, 1956, 1965

Two of the earliest maps of the area, including the 1894 and 1899 maps (Figure 12 and Figure 13) do not indicate any development within the Property in the late nineteenth century. The first historic land use activity within the Project Area appears on the 1930 aerial, which shows what appear might be hay bales and three unknown type structures within the Project Area (Figure 14); however, agricultural use of the Project Area of the Project Area is not indicated on the 1941 aerial, nor are any buildings or structures shown as having been present in 1941 (Figure 15). Furthermore, no buildings or structures are depicted within the Project Area on the 1943 or 1948 USGS 15' Palo Alto topographic maps. However, according to an aerial from 1955, six of the 17 buildings that make up the current 82-unit development within the Project Area were present (Figure 16), which appears to have been completed by 1965 (Figure 17).

The review of historic maps and aerials indicates that the existing residential development, which appears to have been constructed in the mid-to-late 1950s, was the first development to occur within the Project Area. Prior to the 1950s, the Project Area appears to have been used for agricultural purposes. Due to the lack of development within the Project Area prior to the 1950s, the Project Area appears to have a low historic archaeological site sensitivity.

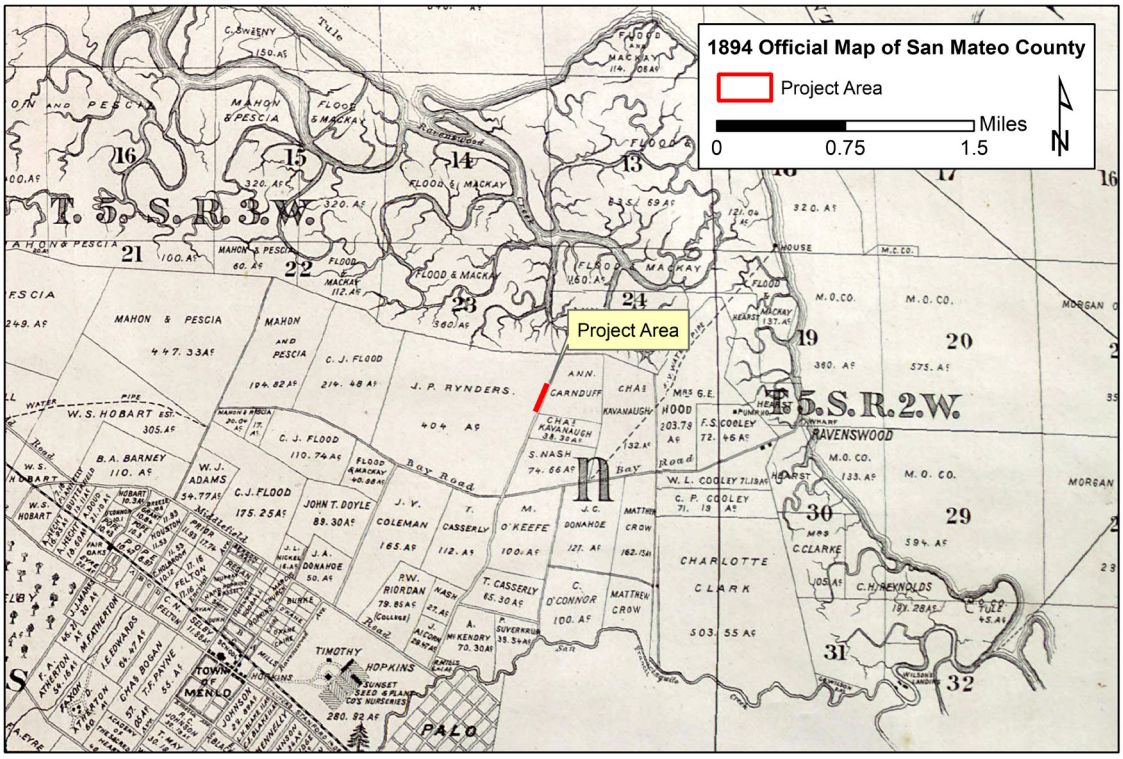

Figure 12: 1894 Official Map of San Mateo County showing the Project Area in red.

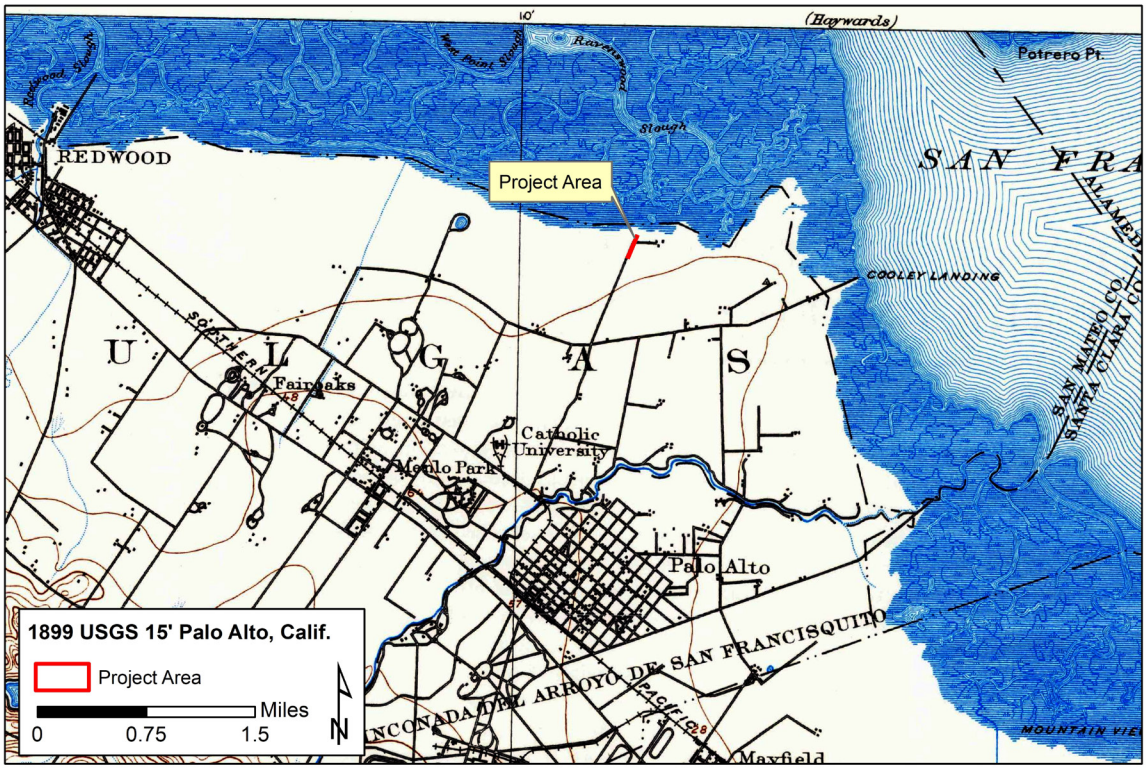

Figure 13: 1899 USGS 15-minute Palo Alto topographic map showing Project Area in red.

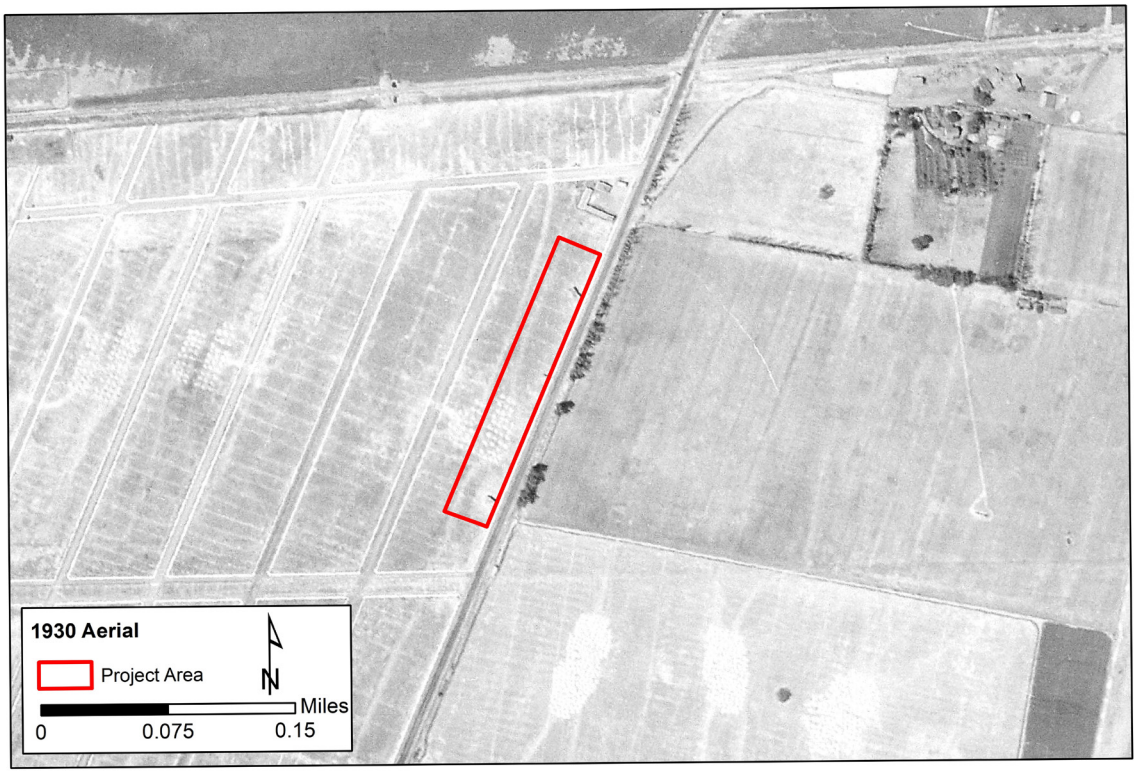

Figure 14: June 1930 aerial (UC Santa Barbara, Catalog # C-1025).

Figure 15: April 1941 aerial showing Project Area in red (UC Santa Barbara, Catalog #C-7065).

Figure 16: December 1955 aerial showing Project Area in red (UC Santa Barbara, Catalog #CIV-1956).

Figure 17: April 1965 aerial showing Project Area in red (UC Santa Barbara, Catalog #CAS-65-130).

5.0 RESEARCH DESIGN

This research design follows the Secretary of Interior's Guidelines for Archaeological Documentation. Its purpose is to describe research themes and address the types of anticipated artifacts, probable depth of cultural deposits, previous disturbances, and NRHP-eligibility. This research design has been prepared in the event that potentially significant archaeological resources are discovered during excavation associated with the Project Area.

Scientific or scholarly research values are judged within the context of a research design that provides the framework for examining variability and change in the archaeological record. A research design outlines the topics or questions that could be asked, given the kinds of data that a particular property type is likely to contain, and evaluates whether that information can be gained from other sources.

Based on the archaeological sensitivity of the Project Area, it is possible that prehistoric resources might be encountered. When resources are discovered during earth-disturbing activities or construction, and if they cannot be avoided, EDS will develop a more comprehensive research design, appropriate to the discovered resource. To preclude the need for additional time spent in review once construction begins, a preliminary Research Design is included below that also includes a research design for historic period archaeological resources even though the potential for historic-period archaeological resources to be present within the Project Area is low. Discussion of potential research values that might be important if associated deposits are identified are reflected as broad, modest themes based on archaeological data for the Project Area and its surroundings.

5.1 RESEARCH ORIENTATION

A fundamental premise of archaeological research is that behavior and social practices of individuals and communities are in some way represented in the material record of past human activities. The study of the patterning in the material record allows us to construct interpretations of how people lived in the past and adapted to their changing environments. The material record comprises artifacts, features, and ecofacts. By definition, an artifact is a movable object transformed by a human being, such as a projectile point; a feature is a non-portable remnant of human activity, such as a hearth, road, or house. Lastly, an ecofact is any floral or faunal material, that has not been altered by people, but that nonetheless has cultural relevance. An archaeological site is any concentration of artifacts, ecofacts, and features manufactured or modified by humans.

In conducting Cultural Resource Management (CRM)-based research, it is important to understand that small archaeological assemblages may not be able to provide substantive information by themselves, but when aggregated together with the date derived from other assemblages, they may reveal interesting and important patterns about the past. Furthermore, archaeological sites almost always have integrity when previous disturbance has not occurred; however, previous disturbance does not preclude an archaeological resource from meeting eligibility requirements.

5.2 RESEARCH DESIGN

This section describes the types of archaeological resources that may be encountered within the Project Area and the types of research questions that can be addressed if such resources are identified.

5.2.1 Cultural Resource Property Types

Cultural resources relate to remains and sites associated with human activities and include prehistoric and ethnohistoric Native American sites, historic cultural resource sites, historic buildings, and elements or areas of the natural landscape that have traditional cultural significance. Significant prehistoric cultural resources are defined as human burials, features or other groupings of materials modified or used by Native American peoples in the past. Indicators of prior cultural occupation by Native Americans include artifacts and burials of human remains, soil discoloration, faunal bone, shell, modified cobbles, ashy areas, and baked or vitrified clays. Materials may include human bone, artifacts of chipped stone such as projectile points, groundstone artifacts, such as mortars and pestles, and bone and shell artifacts. Various features and samples may be encountered including hearths of fire-affected rock, baked and vitrified clay, unmodified faunal and shellfish remains; these characteristics may permit dietary reconstruction, and other evidence, such as differences in compaction in house floors.

Historic cultural materials in the region may have occurred anytime in the last two hundred years, between the late eighteenth through the twentieth centuries. These materials may include structural remains, such as portions of walls and foundations, or glass bottles, metal cans or other manufactured artifacts found in refuse deposits, privies, and wells.

5.2.2 Site Formation Process

It is essential to understand the processes by which cultural and natural strata are formed in order to interpret cultural resource data and to evaluate their importance. The formation of layers and the creation of new feature interfaces create archaeological strata that represent the sequence of events that have occurred at a particular site. Cultural resource deposits reflect periods of continuous use, as well as intervals of transition in site occupation and use. Continuous use of a site creates a gradually accumulated layer of deposition, such as sheet refuse or an ash layer, over a period of months, years, or thousands of years. Deposits of these types allow archaeologists to examine research issues including those that relate to change over time (i.e. diachronic changes). In contrast, other cultural resource deposits are created during events of transition. Catastrophic occurrences, such as floods or fires, and human activity, such as digging a hole or filling a pit, mark intervals of transition. Knowing this allows for the assessment of the integrity of a site. If a site has lost its integrity and its contents have been mixed or disturbed, then the site has limited interpretive value because archaeological interpretations are based on the associations between a site's constituents and its depositional context.

5.2.3 Context of Evaluation

This research design is based on a contextual approach, which emphasizes the specific historical, social, and cultural behaviors contributing to the creation of cultural resource sites. Through this approach, an

archaeologist can examine cultural processes on a small scale, at the level of the mundane and day-to-day activities and experiences that together form a society's broader patterns of development. Use of a contextual approach requires the development of an historic context within which to place the activities that have led to the creation of a cultural resources site. A historic context for a cultural resource deposit might include information about specific characteristics of an individual or group, such as ethnicity and profession, as well as information about the political, social, and economic climate of the larger society, and it may address technological trends relating to site formation processes and site components.

5.2.4 Objectives

The objectives of archaeological investigations for this Project may include determining site boundaries, function, data potential and evaluating the historical significance of archaeological resources, if present. Research topics for prehistoric archaeological resources may revolve around the following themes: refining cultural chronology, site formation processes, and the prehistoric adaptations evidenced at the site. Cultural resource research topics for historic archaeological resources revolve around settlement and land use, consumer behavior, and social identity and status.

5.2.5 Refining Cultural Chronology

Refinement of the cultural chronology is an important aspect of archaeological investigations to any area. Since there have been relatively few excavations in the vicinity of the Project Area, it is important to collect any available data that may help to clarify how Native American culture may have changed over time, particularly in reaction to political and environmental changes.

5.2.6 Chronological Data

Collecting chronological data is a prerequisite to analyzing changes in settlement systems. Radiocarbon dating – using charcoal, shell or other organic matter from clearly cultural contexts, such as features or occupation surfaces – is the preferred method of dating a prehistoric archaeological site or component. Cross dating of temporally diagnostic artifacts, such as beads or projectile points, and obsidian hydration analysis can also provide chronological data; although the resolution is typically lower than for radiocarbon dating.

5.2.7 Requisite Data

If archaeological resources are discovered that cannot be avoided, specific information should be recovered during mitigation to facilitate the interpretation process. This information may include, but is not limited to evaluating areas of moderate and high artifact densities; determining the vertical limits of the site; the presence of intact, sub-surface, and/or stratified deposits; site structure; and site formation processes. One of the more traditional and standard means of recovering this information is through the archaeological excavation of test units. Specific data requirements are those related to chronology, lithic technology, tool stone procurement, fauna and archaeobotany. Site or component function can usually

be elucidated through analysis of lithic technology, faunal and archaeobotanical remains, as well as cultural features.

Lithic Data

There are various relationships between lithic technology and land-use strategies. In simplified terms, mobile foragers are expected to employ a formal technology in which bifaces are important for their portability and multiple functions; more sedentary people tend to use a relatively expedient technology. Lithic technological data can be generated through functional, morphological, and technological analyses of debitage and tools; these data form the foundation for other analyses such as measurements of assemblage diversity and other intra- and inter-site comparisons. Reliable analyses are dependent upon sufficient sample sizes.

Faunal Data

Faunal data directly reflects subsistence practices. Numbers of identified species represented per assemblage provides a qualitative measure of animal selection, which, when compared with other sites/components, can indicate spatial or temporal changes in resource selection, seasonability, availability and over-harvesting.

Archaeobotanical Data

Cultural botanical remains provide direct evidence of subsistence and seasonality, and can contribute to understanding site function(s). Flotation of soil samples from cultural features and macrobotanical identification of floral specimens are necessary to acquire this information. Vegetal resources played important roles in many areas; as mobility decreased, use of plant remains intensified and cultural landscapes were more fully maintained.

Osteological Data

Osteological analysis of human remains present within the archaeological site can be used to reconstruct the age and sex composition of a population, their mortality rates for different ages, length of life, population size, effects of nutrition and disease on demography, and exploring changes in diet and health. The mortality rate of a population and documenting evidence of inter-personal violence can also help to understand and interpret the overall health and demography of a population.

5.2.8 Data Collection Methods

Shovel Test Probes (STPs), Excavation Units (EUs), and backhoe trenching may be employed to determine site boundaries. Hand excavation would be used to expose features and human remains. All soils would be screened through 1/4-inch or 1/8-inch hardware mesh depending on the nature of the resource. Wet screening is preferable, but dry screening may be employed as dictated by the deposit or as the situation allows. Samples of bone, shell, charcoal and soils would be collected and submitted for radiocarbon dating, using specific radiocarbon collection strategies. Flotation samples would also be bagged separately. All recovered cultural material, including historic artifacts, faunal remains, ecofacts,

and organic materials, would be inventoried, processed, and analyzed. Cultural artifacts collected for laboratory analysis would be bagged and labeled with the complete excavation provenience (site number, the unit number, grid location, level depth), including the excavator's name and date. All artifacts collected and bagged in the field would be washed and re-bagged according to artifact type prior to being sent to the laboratory for cataloging and analysis. Artifacts would be cataloged, classified, weighed, measured, numbered, and photographed following professional standards.

Historic materials will be cataloged separately from prehistoric materials following functional categories generally accepted for late nineteenth century sites. The assemblages will be analyzed with reference to functional and morphological attributes, enabling chronological indicators and descriptions to be made for classes of artifactual and ecofactual materials. The historical archaeological collection will be cataloged and processed using standard historic material type categories: shell, animal bone, botanical remains, ceramics, glass, metal, architectural debris (brick, concrete, wood, etc.) and miscellaneous small personal items.

Time-sensitive artifacts, such as projectile points, shell beads and historic artifacts with "maker's marks" or a dateable manufacturing process, will be classified following appropriate typological schemes, and summarized by unit and depth. This information in conjunction with other data is used to assess depositional integrity and to define temporal components.

5.2.9 Research Questions

Research questions that can be addressed by data from the potential archaeological sites present within the Project Area are outlined below. Prehistoric archaeological research will revolve around the broad themes of chronology, settlement patterns and land use, site function and demographics. Historic archaeological research will revolve around chronology, settlement and land use, and consumer behavior, social identity and status.

Site Formation Processes- Prehistoric and Historic Periods

What site formation processes have been active on the site? Are features and artifacts in a primary context or have they been disturbed and redeposited?

The identification of context and site formation involves systematic observation during excavation in order to recognize regional and locally specific processes and their effects. An analysis of site formation processes helps to establish site integrity of deposits and features and directly affects all cultural and behavioral interpretations. It is also crucial when evaluating if a cultural resource meets the eligibility requirements of the NRHP.

Chronology- Prehistoric and Historic Periods

What is the temporal range of deposits at the site? How does it relate to others in the region and does it support existing regional chronology?

Chronology is best established through radiocarbon and obsidian hydration dating. Stratigraphic analysis and site formation analysis are used to evaluate the integrity of the results from various tests such as radiocarbon and obsidian hydration dating. X-ray florescence (XRF) to identify obsidian sources allows for each hydration result to be calibrated. Testing material found in primary context and in association with intact features is preferable. The identification of temporally diagnostic artifact types and features also help establish temporal association (e.g., shell beads, projectile points, charmstones, makers' marks on ceramics and glass bottles and their manufacturing process).

Settlement Patterns - Prehistoric Period

Do the sites or features represent variation in the group size or length of occupation?

Datasets necessary to address settlement patterns would include artifact analysis to determine possible increases or decreases in abundance of artifacts and radiocarbon dating using charcoal, faunal bone, and/or shell may help to decipher how long a site was occupied.

Exotic Materials and Trade - Prehistoric Period

Does the presence of shell or lithic artifacts indicate either contact with groups outside the area or travel outside the area? What are the sources of the various materials used on site (e.g., Napa Valley, Konocti, Annadel obsidian)? Did preferences for specific sources vary over time and how does it compare with other sites in the region?

Datasets that include analysis of distinctive artifact types, such as projectile points, beads, ornaments or other exotic materials representative of a particular culture may be useful for indicating trade patterns and practices with other groups. XRF analysis of obsidian can demonstrate where the raw material was obtained. The presence of obsidian temporally distinctive projectile points within a site can be analyzed for possible diachronic changes of obsidian sources.

Dietary Reconstruction - Prehistoric Period

What subsistence patterns can be identified from archaeological deposits? What were the primary dietary resources utilized and do changes in dietary remains suggest change in environment or resource exploitation over time?

Preserved floral and faunal remains offer the best opportunity to examine subsistence strategies and how they may have changed over time. Recovering both floral and faunal remains may require flotation of column samples and requires the identification of macrobotanical and faunal remains and statistical analyses for intrasite comparison. Changes in the quantities of tools (e.g. flaked tools vs. ground stone) within an assemblage and tool use (through lithic tool use-wear studies) can also be beneficial methods to elucidate subsistence questions. This requires analyzing and classifying bone and shell tools and artifacts, and carefully excavating features and screening soil through fine-mesh (e.g., to recover such evidence as obsidian microflakes indicative of knapping). Other datasets that may help to reconstruct diachronic environmental changes include protein residue and pollen and phytolith studies, which can indicate changes in plant and animal species at a site over time.

Demography, Health, and Violence - Prehistoric Period

What is the demographic profile of the population? What was the health of the burial population and how did it change over time? What is the nature of inter-personal violence and did it change over time?

Osteological analysis of human remains present within the archaeological site can reconstruct prehistoric life ways, the age and sex composition of a population, their mortality rates for different ages, length of life, population size and effects of nutrition and disease on demography. Field recording of burial position, orientation and associated features and artifacts is important in evaluating life ways. Making standard laboratory observations of age, sex, and pathology reflect demographics and health status of the population. Recording nonmetric traits can help identify biological distance among and within populations, as well as the effects of the surrounding environment. Metric analysis helps to determine stature, sexual dimorphism, and population differences. The identification of pathologies and trauma also assist in evaluating populations' overall health and inter-personal relations.

Settlement and Land Use - Historic Period

How was the land used in the historic period and did land use change over time?

Addressing these questions would require the identification of discreet features, such a domestic refuse pit, and the analysis of associated artifacts to establish function, and/or landscape features such as fences, roads, trails, pastures or orchards. Integrating feature information to determine land use strategy at different times is also important.

Consumer Behavior, Social Identity and Status - Historic Period

Does the historic artifact assemblage reflect the known availability of various consumer goods during a particular time and at a particular place? Do historical resources provide information on consumer practices of any particular social, economic, or ethnic group?

Shifts in homegrown foods to store-bought foods and other consumer products can best be illustrated by types and quantities of data sets that include faunal and other food remains and historic artifacts that provide evidence of subsistence, including food storage vessels such as bottles, canning jars, tin cans, and ceramic crockery. Domestic items, such as cooking and eating utensils, tableware, and personal items are other important indicators of consumer behavior. Analysis of historic artifacts has the potential to provide information about social and economic status (e.g., the presence of fine porcelain versus plain whiteware tableware). Imported manufactured goods may help to identify ethic identities and supply information on the cultural maintenance within a specific group.

6.0 CULTURAL RESOURCES MONITORING PLAN

Due to Project Areas high prehistoric archaeological sensitivity, archaeological monitoring by a Secretary of Interior-qualified archaeologist is recommended during Project-related earth-disturbing activities that have the potential to encounter such resources.

The following sections outlines the monitoring protocols and procedures that will be implemented during archaeological monitoring and lists the key personnel who will act as EDS Project Manager (PM), Principal Investigator (PI) and archaeological monitors. It also outlines the procedures that will be implemented in the event that human remains are encountered during earth-disturbing activities.

6.1 MONITORING PROTOCOLS AND PROCEDURES

To address the possibility that unidentified but potentially significant archaeological resources may be encountered during Project-related earth-disturbing activities monitoring protocols and procedures have been developed. Monitoring is defined as active observation of earth-moving or work that could adversely affect cultural resources with the Project Area.

An archaeological monitor is recommended during Project-related earth-disturbing activities that have the potential to encounter archaeological resources (i.e. non fill soil), whether previously disturbed or not, to ensure that archaeological resources, if present, are identified and treated following the Secretary of Interior Standards. Archaeological monitoring shall continue until the archeological monitor or PI determines that cultural resources are unlikely to be encountered. The archaeological monitoring program followed throughout the construction process may include a range of procedures including full-time monitoring, part-time monitoring or spot checks.

- Full-time monitoring will occur during the entire workday and continued on a daily basis until the excavation within native soil in a given area has reached a depth at which resources are not likely to occur or until the archaeological monitor or PI determines that full-time archaeological monitoring can be scaled back to part-time monitoring, spot checks, or is no longer warranted.
- Part-time monitoring will occur during part of a workday. Part-time monitoring will be conducted when a specific excavation activity occurring within native soil on any given day has the potential to uncover archaeological resources.
- Spot checks consist of a field inspection of the progress of excavation over the course of the project. During spot checks all spoils, open excavations, recently graded areas, and other soil disturbances are inspected. The frequency and duration of spot checks is based on the relative sensitivity of the exposed soils and active work areas as determined by the archaeological monitor or PI.

Earth-moving activities include all construction ground disturbances, including, but not limited to grading, boring, and trenching. Excavation solely within fill soil (e.g., soil that has been brought onto the Project site for the purpose of development) will not be monitored by an archaeologist.

If the archaeological monitor or PI determines that full-time monitoring is no longer required in specific locations, an e-mail detailing the reasons for changing the level of monitoring shall be provided to the Project construction manager and/or the Client[7].

At a minimum, the monitoring archaeologist, PI or PM shall consult daily or weekly with the Project construction manager and/or Client to confirm area(s) to be worked during the following week until ground disturbance is completed, or it is determined that archaeological monitoring is no longer warranted. The Project construction manager and/or Client shall promptly notify the archaeological monitor or PM of any changes to the scheduling of the construction phases.

Archaeological resource monitoring activities are the responsibility of the PI and the archaeologist assigned to monitor ground-disturbing activities. Any interference with monitoring activities, removal of a monitor from duties assigned by the PI, or direction to a monitor to relocate monitoring activities by anyone other than the PI shall be considered noncompliance.

6.2 MONITORING PERSONNEL AND COMMUNICATION PROCEDURES

6.2.1 Monitoring Personnel

A Secretary of Interior-qualified archaeologist shall monitor project ground-disturbing activities. The role of PI and PM will be assigned to Ms. Sally Evans, M.A., who is a Registered Professional Archaeologist (RPA #29300590) and exceeds the minimum qualifications of the Secretary of Interior standards. Ms. Evans will be supported by Mr. Gilbert Browning M.A. RPA (RPA #36826964). Other individuals on the team, who also exceed the minimum qualifications as archaeological monitors may assist with the Project mitigation and monitoring.

The archaeological monitor(s) will have access to a full complement of supplies that include a GPS unit, hand trowel, pin flags, caution tape, shaker screen, shovel, cell phone, digital camera, maps and all other supplies necessary to effectively complete the construction monitoring task. Hard hats, boots, high visibility reflective vests, ear plugs, gloves, and safety glasses will be part of the monitor's attire.

6.2.2 Work Curtailment Procedures

The archaeologist shall monitor on a full-time basis, initial project-related earth-disturbing activities within the project Area that have the potential to disturb native soil, including, but not limited to grading, boring, trenching, and other earth-disturbing activities within the Project Area that penetrate native soil whether previously disturbed or not. If the archaeological monitor or the PI determines that the level of monitoring requires a different level of intensity, which could include the need for additional monitors or reducing to spot-check monitoring only, then a letter or an email describing justification for the change in monitoring procedures shall be drafted by the PI or PM to the Client for approval.

[7] The Client is the Project applicant or owner who is responsible for the development or in charge of overseeing the development.

The archaeological monitor(s) and PI have the authority to halt construction in the area of a discovery to ensure that an archaeological resource is protected from further impacts. If necessary, the instruction to suspend an activity can be given directly to a heavy equipment operator or to a crew member. If the monitor determines that a potentially significant archaeological resource has been encountered, all work within 25 feet of the discovery area shall be redirected and the excavated area and any back dirt will be secured. In cases where the objects or materials are determined to be non-significant, work will be allowed to resume immediately.

If potentially significant archaeological resources are encountered, as soon as the immediate danger to it is abated, the archaeological monitor will report the discovery of the resource directly to the PI and the appropriate contractor to explain the action taken, why it was necessary, and the subsequent actions to be taken. The PI acts as the party responsible for all cultural resource issues and will immediately report any issues to the Project construction manager and/or the Client.

The halting or redirection of construction activities in a discovery area shall remain in effect until the PI and the Client have conferred and determined if avoidance is possible. If avoidance of the potentially significant archaeological resource is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the NRHP (see Section 2.2 for eligibility requirements). If the deposit is found not eligible, mitigation is not necessary. If the deposit is eligible, adverse impacts on the deposit shall be mitigated. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and a technical data recovery report at a curation facility. Upon completion of the assessment, the archaeologist shall prepare a report to document the methods and results of the assessment. The report shall be submitted to the City of Richmond and the NWIC upon completion of the resource assessment.

If data recovery or other mitigation measures is required, additional archaeological monitors shall continue to monitor construction activities, if needed, while mitigation of the resource is performed. All necessary and required data recovery and other mitigation shall be completed as promptly as possible after the discovery of any previously unknown cultural resource unless all parties agree to additional time.

In the event of an archaeological resource discovery, avoidance measures such as flagging or fencing (or in case of human remains steel plating) will be used to prohibit or otherwise restrict access to sensitive areas.

6.2.3 Procedures for the Discovery of Archaeological Resources

In the event that an archaeological resource is uncovered during construction and the archeological monitor is not on site, employees shall halt work on their own in the vicinity of a potential archaeological resource discovery (all excavation and earth moving activities within 25 feet) and

immediately contact their supervisor or foreman and EDS. The relocation or redirection of work will be determined by the Client and/or construction supervisor and the archaeological monitor or PI.

The archaeological monitor will assess whether the discovery is potentially significant and report to the PI. If the discovery is of a potentially significant archaeological resource, then EDS will follow the procedures in the mitigation plan as summarized in this report and will notify the Project construction manager and/or the Client within 24 hours. The Project construction manager and/or the Client will notify the construction personnel to begin work again in the vicinity of the resource only after mitigation has occurred.

If the discovery is determined by the archaeological monitor or PI[8] to be human remains, the monitor or the PI shall contact the Project construction manager and/or Client immediately. The archaeological monitor or the PA shall contact the Contra Costa County Coroner's Office immediately. The coroner may consult with the archaeological monitor or PI who identified the remains as human. The human remains will be secured immediately with steel plating. The San Mateo County Coroner must be contacted upon each occurrence of human remains identified within the Project Area.

- San Mateo County Coroner: (650) 312-5562
  Robert Faucrault, Coroner
  RFoucrault@smcgov.org
  50 Tower Road, San Mateo, CA 94402

California Health and Safety Code 7050.5 establish intentional disturbance, mutilation or removal of interred human remains as a misdemeanor. It requires that further excavation or disturbance of land, upon discovery of human remains outside of a dedicated cemetery, cease until a county coroner makes a report. It requires the county coroner to contact the Native American Heritage Commission (NAHC) within 24 hours if the coroner determines that the remains are not subject to his or her authority and if the coroner or their consultant recognizes the remains to be those of a Native American.

Native American Heritage Commission and Most Likely Descendants (MLD)

Public Resource Code §5097.98 requires the NAHC, upon notification by a county coroner, to notify the most likely descendants (MLD) regarding the discovery of Native American human remains. It enables the MLD, within 48 hours of notification by the NAHC, to inspect the site of the discovery of Native American human remains and to recommend to the landowner or the person responsible for the excavation work means for treating or disposition, with appropriate dignity, the human remains and any associated grave goods. In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition within 48 hours, or the landowner rejects the recommendation of the descendant, PRC §5097.98 requires the owner of the land to reinter the remains and associated grave

[8] The PI for this project is a bioarchaeologist who is trained on the identification and analysis of human remains in archaeological contexts.

artifacts with appropriate dignity on the property in a location not subject to further disturbance. The re-burial location is to be documented and reported to the NAHC and the NWIC.

If a dispute arises between the landowners and the MLD related to the treatment and disposition of Native American human remains and associated grave artifacts, the NAHC will mediate the dispute. If the landowner does not accept the MLD's recommendations for treatment of the remains, the owner or the MLD may request mediation by the NAHC. The NAHC may also assist landowners in developing agreements with MLDs to ensure protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction, and provide for sensitive treatment and disposition of Native American burials, skeletal remains, and associated grave artifacts in a manner consistent with the planned use of, or the approved project on, the land.

Under SB 447 (Chapter 404, Statutes of 1987) it is a felony to obtain or possess Native American remains or associated grave artifacts except as otherwise provided by law or in accordance with an agreement reached pursuant to PRC §5097.94 or § 5097.98. Any person who removes, without authority of law, any Native American artifacts or human remains from a Native American grave with intent to sell or dissect or with malice or wantonness is guilty of a felony which is punishable by state imprisonment.

Consultation with the MLD, PI, and the Client shall determine the appropriate treatment and level of analysis of any human remains discovered within the Project Area.

6.2.4 Native American Participation

Important prehistoric archaeological materials and Native American human remains could be disturbed if prehistoric archaeological deposits are encountered during project construction. Currently, Native American monitoring is not recommended for the Project. However, the presence of a Native American monitor is recommended if prehistoric resources are encountered during earth-disturbing activities.

If human remains are discovered during monitoring or mitigation activities, then the specific guidelines, protocol, and channels of communication outlined by the California NAHC (1991), and in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resource Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and SB447 (Chapter 44, Statutes of 1987) will be followed. Section 7050.5 (c) will guide the MLD and Native American involvement, in the event of discovery of human remains.

6.2.5 Reporting Procedures - Daily Log, Weekly and Monthly Reports

During the monitoring period, a daily log will be completed for each day that monitoring that is conducted. The log will track earth-moving activities, detail archaeological discoveries, and other actions taken including noncompliance issues.

Cultural Materials Considered Less than 50 Years of Age

All of the cultural materials listed below are less than fifty years of age and, unless of exceptional significance, will not be considered potentially significant cultural resources. The following materials will not be reported unless exceptional:

- Plastic products limited to Styrofoam® and other foamed polystyrene products, Velcro®, Teflon® coated cookware, polyvinylchloride (PVC) pipe, high-density polyethylene, polypropylene, polyimide, thermoplastic polyester, linear low-density polyethylene, liquid crystal polymers, and products marked with resin codes.
- Cans made from aluminum or bi-metal, or those with pull-tab or push-tab (metal or plastic) openings.
- Aluminum foil containers.
- Synthetic tires, car parts.
- Modern electronics (CD players, VCRs, electronic appliances, personal electronics, computers, printers, and associated parts).
- Compact disks, floppy computer disks, magnetic tape media.
- Unidentifiable metal fragments.
- Rubber and rubberized metal.
- Clothing or shoes made of plastic or synthetic materials.
- Modern bottles and other similar containers

Any materials that are found with materials older than 50 years will be reported.

6.3 FIELD RECORDATION AND MITIGATION PLAN

6.3.1 Cultural Materials Considered 50 Years of Age or Older and Not Human Remains

In the event that potentially significant archaeological resources are uncovered during construction the following procedures will be followed:

1. Excavation work or any other earth-moving activities within 25 feet, or greater if deemed necessary by the archaeological monitor to protect the archaeological resource, will halt and be redirected.

2. If there is no archaeological monitor on site, the workers will stop work in the area and notify the site/area supervisor or construction manager who will then immediately notify the PI or PM.

3. If the archaeological monitor or bioarchaeologist determines that the discovery includes human remains, those remains will be treated under the protocol for treatment of human remains (see section 6.2.3).

4. The archaeological monitor will notify the PI of the discovery.

5. If the PI determines the discovery qualifies for prescribed treatment, then the procedures in section 6.3.4 will be followed.

6. If the discovery does not qualify for prescribed treatment, procedures outlined in Section 6.3.5 (below) will be followed. Excavations where archaeological material has been discovered will not be back-filled until the archaeological monitor or PI approves the back-filling. If the area needs to be secured, this will be done by plating, fencing, or other temporary measures approved by the archaeological monitor or PI. Steel plates should be made available by the contractor for this purpose.

6.3.2 Expansive Exposure of Discovered Resources is Possible

In some cases, broad excavations are possible within a linear right of way (ROW) (when ROW is through open land). When discoveries are made in areas where investigations can be made over broad areas the following will be completed:

1. The horizontal and vertical boundaries of the deposit will be defined.

2. The stratigraphic relationships and depth of the deposit will be defined.

3. The content of deposit, i.e., the date range and information potential, will be investigated by means of subsurface testing.

4. Sufficient information will be gathered to make a recommendation of eligibility utilizing the research design outlined in Section 5.0 (refining research design if necessary).

5. The site will be recorded on Department of Parks and Recreation (DPR) 523 forms that will include a location map, a scaled drawing, and a photograph of the resource.

6. An eligibility recommendation will be made for the resource on the form.

7. If the find cannot clearly be recommended as eligible or ineligible for the NRHP, the deposit will be assumed eligible.

8. The PI will develop a data recovery program based on the research design that reflects the information potential identified by the subsurface testing. If the PI determines that the find is eligible for the NRHP, then all mitigation required will be completed prior to continuation of construction in the area of the discovery.

6.3.3 Expansive Exposure of Discovered Resources is Not Possible

When discoveries are made in trenches within public roadways or areas where access is restricted, the possibility of completing a thorough evaluation of a discovery may be limited. Safety considerations may constrain excavation or testing of a cultural resource. Access to resources discovered at depth in a trench should not automatically be considered restricted. If there is a question about whether access is restricted, the PI, Project construction manager and Client will consult and determine if the access is restricted.

In cases where exposure of the resource is limited, evaluation of a portion of a site or deposit for the NRHP may not be sufficient to allow an eligibility recommendation of the entire resource. The following information will be gathered:

1. The horizontal and vertical boundaries of the deposit or resource will be defined to the extent possible.

2. The stratigraphic relationships and the depth of the deposit will be identified by using subsurface testing. The content of the deposit, i.e., the date range and information potential, will be investigated. Where access is limited, the content and the date of the deposit (if possible) will be described, and the information potential will be evaluated, utilizing the research design described herein.

3. The site will be recorded on a Department of Parks and Recreation (DPR) 523 form, including a location map, a scaled drawing, and a photograph of the resource.

4. If horizontal excavation is extremely limited, and the find cannot clearly be recommended as eligible or ineligible for the NRHP, the deposit will be assumed eligible. The deposit will be treated by preparing DPR 523 forms to provide a record of the find, including a location map, a scaled drawing, and a photograph of the resource; and by developing a limited data recovery program based on the research design described herein. All mitigation will be approved by the Client and completed prior to continuation of construction in the area of the discovery.

6.3.4 Prescribed Treatment of Cultural Resource Discoveries

Any discovery that contains human remains will not be subject to this protocol.

For some classes of resources, treatment (mitigation) can be agreed upon before starting construction on the Project. Defining the resource classes and treatments prior to starting any ground disturbing activities can limit delays in the construction schedule. When resources over 50 years of age are discovered, prescribed treatment for the classes of resources listed below consists of the following:

1. Construction is halted in the immediate vicinity of the find, and the archaeological monitor records the find on DPR 523 forms, including a location map and a photograph record.

2. The PI or PM notifies the Project construction manager and the Client of the find within 24 hours.

3. Notification includes a description of the resource, a statement that it qualifies for prescribed treatment, and that the treatment has been completed.

4. Construction can resume when the archaeological monitor completes documentation and all concerning parties have been notified.

Classes of Prehistoric Period Archaeological Resources Eligible for Prescribed Treatment

- Small, sparse (less than 3 pieces per square meter) scatters of lithic debitage that lack depth (less than ten centimeters).
- Sparse occurrences of fragments of fire-affected rock (less than 3 pieces per square meter, with no other cultural constituents).
- Sparse occurrences of fragments of baked or vitrified clay (less than 3 pieces per square meter, with no other cultural constituents).
- Small midden remnants (smaller than 1-meter x 1 meter) that lack depth (less than 10 centimeters). If charcoal, bone or other diagnostic elements are found in the midden, or the deposit is exceptional as determined from associated artifacts, the midden and associated diagnostic elements will be treated following Section 6.3.5.
- Small clusters (less than 1-meter x 1 meter in size) of unidentifiable shell (whole or fragmented). If artifacts, rock material not native to the area (manuport) or other materials are found, the shell and associated deposit will be treated following Section 6.3.5.

Classes of Historic Period Archaeological Cultural Resources Eligible for Prescribed Treatment

- Roadside disposal of debris.
- Small, isolated artifact concentrations (fewer than 20 artifacts or the fragments of fewer than three objects) with no potential for subsurface deposit.
- Concrete, brick, or other building materials that lack structural integrity and are part of a documented disturbed (redeposited) context.
- Metal, concrete, or ceramic pipes, conduits, or culverts that lack structural integrity.

Prescribed Treatment for Diagnostic and Exceptional Isolated Finds

Certain isolated finds are subject to special treatment. They include diagnostic prehistoric artifacts, intact, unusual historic-period artifacts greater than 50 years old, and other exceptional artifacts (high quality, unique, or labeled examples, e.g., mortars, pestles, projectile points, ornaments, embossed bottles, decorated or maker-marked ceramic vessels, or dated/inscribed metal objects). Diagnostic artifacts are defined as items that are indicative of a particular time and/or cultural group.

Examples of diagnostic artifacts include:

	Lithics	Groundstone	Beads/Pendants	Other
Prehistoric Artifacts	Points	Mortars	*Olivella* shell	Baked clay figurines
	Scrapers	Pestles	Abalone shell	Ear spools
	Drills	Mano	Stone	Bone tools
	Blanks	Metate	Bone	Pipes
		Net Sinkers	Other types of shell	Charmstones

	Ceramics	Glass	Identifiable metal	Other
Historic Artifacts	Decorated	Cut	Tools	Buttons
	Rim sherds	Pressed	Gun parts	Marbles
	Basal sherds	Decorated	Machine parts	Pipes
	Maker's marks	Vessels bases and lips	Hinges	Figurine, doll parts
	Complete vessels	Labels	Nails	Saw cut/butchered bone
	Insulators	Complete vessels	Buckles	
		Insulators	Flatware	
			Wagon hardware	
			Horse tack, shoes	

Diagnostic artifacts will be treated as follows:

1. Construction is halted within 25 feet while the archaeological monitor records the find on a DPR 523 form, including a location map and a photograph.
2. The isolate is collected and will be curated.
3. The PI or PM notifies the construction supervisor and/or Client of the find within 24 hours. Notice includes a description of the resource and a description of the steps taken to determine that it was truly spatially isolated and not part of a larger deposit that would be treated according to Section 6.3.5.
4. Construction can resume when the archaeological monitor completes documentation.
5. All isolates will be listed and described in the associated final monitoring report.

6.3.5 Potentially Significant Cultural Resources Not Eligible for Prescribed Treatment and That Warrant Further Evaluation

Except for the materials listed in Section 6.3.4, all other cultural resource materials must be treated individually, as significant or potentially significant discoveries. Individual treatment consists of the following steps:

1. The archaeological monitor halts construction within 25 feet of the find and secures the discovery area and associated back-dirt (spoils).
2. As soon as the immediate danger to it is abated, the archaeological monitor will report the find directly to the PI and the appropriate contractor to explain the action taken, why it was necessary, and the subsequent actions to be taken.
3. The PI or PM notifies the Client of the find within 24 hours.
4. The archaeological monitor records the find on a DPR 523 form, including a location map and a photograph record.
5. The PI provides the Client with a recommendation to avoid impacts to the resource.

6. If avoidance is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the NRHP (see Section 2.2 for eligibility requirements). EDS will provide a scope of work and cost estimate for eligibility testing within 48 hours of the decision that avoidance is not feasible, unless more time is required.

7. If the deposit is found not eligible for the NRHP, mitigation is not necessary, and excavation can resume immediately.

8. If the deposit is determined eligible for the NRHP, adverse impacts on the deposit shall be mitigated via a data recovery plan. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan using standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and report at a curation facility. Construction shall continue to be suspended in the discovery area until any further data recovery and mitigation has been completed.

6.4 CURATION

The Client will assume responsibility for any funding requirements related to the accessioning of archaeological materials and the data recovery report at a curation facility. Artifacts will be cataloged using protocols acceptable to the David A. Fredrickson Archaeological Collections Facility at Sonoma State University, which is the curation facility recommended by EDS for any archaeological discoveries that result from this Project.

6.5 TECHNICAL REPORTING

Ninety (90) business days after the completion of all ground disturbance including landscaping and/or data recovery (if required), and data analyses, a final Cultural Resources Monitoring Report (CRMR) will be produced under the direction of the PI. If data recovery and data analysis occur, the report will comply with the Secretary of the Interior's Standards for Archaeological Documentation. A draft report will be provided to the client for one round of comments. The final report will be submitted to the client and the NWIC. The report will include DPR 523 forms for any newly discovered sites within the Project Area.

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United States Department of Agriculture (USDA)

2019 Natural Resource Conservation Service Web Soil Survey. Electronic application, http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

Preserving America's Heritage

September 27, 2019

Mr. Ken Cole
Director
Department of Housing
County of San Mateo
264 Harbor Blvd. Building A
Belmont, CA 94002-4017

Ref: *Proposed Gateway Family Housing Project located at 1345 Willow Road*
Menlo Park, San Mateo County, California
ACHPConnect Log Number: 014539

Dear Mr. Cole:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Because the ACHP did not respond within 15 days with a decision regarding participation, the ACHP assumes that the consultation to resolve adverse effects has continued.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Programmatic Agreement (PA) developed in consultation with the California State Historic Preservation Office (SHPO) and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the PA and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

If you have any questions or require our further assistance, please contact Mr. Anthony Guy Lopez at 202-517-0220 or via e-mail at alopez@achp.gov.

Sincerely,

LaShavio Johnson

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

DEPARTMENT OF HOUSING
COUNTY OF SAN MATEO

Main Office - Department of Housing
264 Harbor Blvd., Building A, Belmont, CA 94002-4017

Housing & Community Development (HCD)
Tel: (650) 802-5050

Housing Authority of the County of San Mateo (HACSM)
Tel: (650) 802-3300

Board of Supervisors:
Dave Pine
Carole Groom
Don Horsley
Warren Slocum
David Canepa

Director: Ken Cole

August 29, 2019

John M. Fowler, Executive Director
Advisory Council on Historic Preservation
401 F Street NW, Suite 308
Washington, DC, 20001-2637

In re: Notice of Programmatic of Agreement for Section 106 Review – Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California

Dear Director Fowler,

The County of San Mateo, Department of Housing will fund redevelopment of an existing affordable housing site at a higher density by providing on-going rental subsidies to the Gateway Family Housing project located at 1345 Willow Road in Menlo Park, California (APN 055-383-560). The project is currently awarded Project-Based Section 8 Voucher allocations from the U.S. Department of Housing and Urban Development (HUD), as administered by the Housing Authority of the County of San Mateo (HACSM). In brief, the County wishes to redevelop a site that is currently developed and highly sensitive for buried archaeological resources and therefore, identification of historic properties within the Area of Potential Effects is not possible at this time. Due to the developed nature of the site, we are unable to determine if historic properties, as defined in the National Historic Preservation Act ("NHPA") [54 U.S.C. § 300308], exist under current improvements.

Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A part time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room.

As Executive Director, I serve as the Agency Official for Section 106 and as the County's Certifying Officer to HUD for NEPA Review of projects within Sonoma County that qualify for HUD funding. As

Agency Official, I recently entered consultation with the California State Historic Preservation Officer (SHPO) regarding the effects this undertaking could have upon historic properties.

An assessment of effects of the Undertaking upon historic properties cannot be made at this time as the project is unable to identify if buried resources are present and will be affected as a result of the undertaking. As the County wishes to proceed with funding the project, we respectfully request to enter into a project-level Programmatic Agreement ("PA") with the California Office of Historic Preservation. The PA will allow the County to make a finding under the National Environmental Policy Act (NEPA) and HUD's implementing regulations at 24 CFR Part 58. The PA will address ways to avoid adverse impacts in the event of accidental discovery of buried resources during construction.

I am enclosing Summary Documentation required under §800.11(e) for your information. These are all the materials I previously sent for Section 106 Review consultation with Julianne Polanco. Efforts to involve the public will include outreach and noticing to invite comment at either the public comment process under NEPA or if resources are discovered. At this time, there are no Federally-recognized tribes in the County of San Mateo.

Please note, I am not requesting the Council's participation at this time. Pursuant to §800.6(a) (1) (iii), however, please indicate whether you wish the Advisory Council to participate in the preparation of the Programmatic Agreement for this project within 15 days of receipt of this letter. Your immediate attention to this matter is greatly appreciated since time is of the essence to acquire the property. If I have not received a communication from you within that period, I will assume that the Council does not wish to participate in the Programmatic Agreement.

If you wish to respond, please forward all written communication to me at the above address or you can contact me via phone (650) 802-5024 or email kcole@smchousing.org .

Respectfully,

Ken Cole, Director
Department of Housing
County of San Mateo

enclosures:

- Letter dated April 25, 2019 to Julianne Polanco, State Historic Preservation Officer In Re: Request for Section 106 Review of Gateway Family Housing, 1345 Willow Road, Menlo Park, California with all attachments

- Letter dated May 23, 2019 to Ken Cole, Director, County of San Mateo, Department of Housing from Julianne Polanco, State Historic Preservation Officer in re: Gateway Family Housing Redevelopment Project at 1345 Willow Road, Menlo Park, CA

cc: Julianne Polanco, State Historic Preservation Officer c/o Shannon Lauchner

Ying Sham, County of San Mateo, Department of Housing

Nesreen Kawar, MidPen Housing

Cinnamon Crake, AEM Consulting

PROGRAMMATIC AGREEMENT
BETWEEN THE COUNTY OF SAN MATEO
AND THE
CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE GATEWAY FAMILY HOUSING PROJECT LOCATED AT 1345 WILLOW ROAD
MENLO PARK, CALIFORNIA

THIS PROGRAMMATIC AGREEMENT ("PA"), entered into this ____ day of _____, 2019 ("PA Date") by and between the COUNTY OF SAN MATEO, a political subdivision of the State of California, hereinafter called the "County," and the CALIFORNIA STATE HISTORIC PRESERVATION OFFICER hereinafter called "SHPO".

RECITALS

WHEREAS, MidPen Housing Corporation, a California registered 501(c)(3) non-profit organization ("MidPen" or the "Developer"), proposes to construct the Gateway Family Housing project (the "Project") on a 2.96 acre site with 140 affordable housing units in three- and four-story buildings, located at 1345 Willow Road in Menlo Park, California, and operate the property as affordable housing with parking and amenities; and

WHEREAS, the County has determined the Project, is an "Undertaking" as defined in Section 800.16(y) of 36 CFR Part 800 National Historic Preservation Act ("NHPA"); and

WHEREAS, the County, designated to fulfill the requirements of Section 106 of NHPA with respect to the Undertaking, and given the current state of the property as developed with 17 buildings, parking and landscaping, is unable to adequately determine if buried cultural resources exist under the site that may be disturbed during redevelopment of the site; and

WHEREAS, the site is highly sensitive for buried cultural resources that may be eligible for listing on the National Register of Historic Places ("NHRP") and may be affected by the Undertaking, and the presence of such historic properties cannot be determined at this time; and

WHEREAS, the County has consulted with SHPO pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the NHPA (Title 16 U.S.C. § 470), as amended; and

WHEREAS, the County, through the United States Housing Act of 1937, Section 8(c)(9), as amended, for the release of Project-Based Section 8 Vouchers, will be the Agency Official for the Undertaking; and

WHEREAS, the Housing Authority of the County of San Mateo ("HACSM") has conditionally awarded Project-Based Section 8 Vouchers to the Developer, and has also been invited to concur in this PA; and

WHEREAS, the Developer has participated in the consultation and has been invited to concur in this PA; and

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WHEREAS, the County is a Certified Local Government pursuant to Section 101(c)(1) of the NHPA; and

WHEREAS, the County remains responsible for reporting the progress of this Undertaking, as it pertains to the Section 106 consultation process, to SHPO for the duration of this PA; and

WHEREAS, in accordance with the 36 CFR Part 800.6(a)(1), the County has notified the Advisory Council on Historic Preservation ("ACHP") of the Undertaking with specific documentation, and ACHP has chosen not to participate in consultation pursuant to 36 CFR Part 800.6(a)(1)(a)(iii);

NOW, THEREFORE, the County and SHPO agree that the Undertaking shall be implemented in accordance with the following Stipulations in order to take into account the effect of the Undertaking on historic properties.

STIPULATIONS

The County shall ensure that the following measures are carried out:

I. ARCHAEOLOGICAL MONITORING DURING CONSTRUCTION

A *Secretary of the Interior Qualified Archaeologist* shall be retained to in accordance with the Cultural Resources Monitoring Plan (CRMP) in attachment 1 to this PA and provide archaeological monitoring for project-related earth-disturbing activities within the Project Area. The CRMP shall be followed at all times during construction and in the event of accidental discovery of buried cultural resources or human remains.

II. DURATION

This PA will be null and void if its terms are not carried out within five (5) years from PA Date. Prior to such time, the County may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Stipulation VIII below.

III. POST-REVIEW DISCOVERIES

If potential historic properties are discovered or unanticipated effects on historic properties found, the County shall implement the discovery plan included as attachment 1 of this PA.

IV. MONITORING AND REPORTING

Each year following the execution of this PA until it expires or is terminated, the County shall provide all parties to this PA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in County's efforts to carry out the terms of this PA.

V. DISPUTE RESOLUTION

Should any signatory or concurring party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, the County shall consult with such

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party to resolve the objection. If the County determines that such objection cannot be resolved, the County will:

A. Forward all documentation relevant to the dispute over the objection, including the County's proposed resolution, to ACHP. ACHP shall provide the County with its written feedback on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the County shall prepare a written response that incorporates any timely feedback or comments regarding the dispute from ACHP, signatories and concurring parties, and provide them with a copy of this written response. The County will then proceed accordingly with its final decision.

B. If ACHP does not provide any feedback regarding the dispute within the thirty (30) day time period, the County may make a final decision to resolve the dispute over the objection and proceed accordingly. Prior to reaching such a final decision, the County shall prepare a written response that takes into account any timely feedback or comments regarding the dispute over the objection from the signatories and concurring parties to the PA, and provide them and ACHP with a copy of such written response.

C. The County's responsibility to carry out all other actions pursuant to the terms of this PA that are not the subject of the dispute over the objection remain unchanged.

VI. AMENDMENTS

This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VII. TERMINATION

If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VIII above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.

Once the PA is terminated, and prior to work continuing on the Undertaking, the County must either (a) execute a PA pursuant to 36 CFR § 800.6 or (b) solicit and incorporate, and respond to any comments of ACHP under 36 CFR § 800.7. The County shall notify the signatories as to the course of action that it will pursue.

Execution of this PA by the County and SHPO and implementation of its terms evidence that the County has considered the impact of this Undertaking on historic properties and afforded ACHP an opportunity to comment on the same.

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SIGNATORIES:

County of San Mateo

By: _____ Date: _____

Kenneth Cole, Director

California State Historic Preservation Officer

By: _____ Date: _____

Julianne Polanco, State Historic Preservation Officer

CONCURRING PARTIES:

Housing Authority of the County of San Mateo

By: _____ Date: _____

Kenneth Cole, Executive Director

MidPen Housing Corporation

By: _____ Date: _____

Matt Franklin, President and Chief Executive Officer

DRAFT

EVANS & DE SHAZO
ARCHAEOLOGY HISTORIC PRESERVATION

ARCHAEOLOGICAL SITE SENSITIVITY STUDY AND CULTURAL RESOURCE MONITORING PLAN FOR THE PROPOSED GATEWAY FAMILY HOUSING REDEVELOPMENT PROJECT, MENLO PARK, SAN MATEO COUNTY, CALIFORNIA

PREPARED FOR:

Cinnamon Crake, Associate
AEM Consulting

PREPARED BY:

Sally Evans, M.A., RPA
Principal Archaeologist
sally@evans-deshazo.com

August 6, 2019

Evans & De Shazo, Inc.
1141 Gravenstein Highway South
Sebastopol, CA 95472
707-812-7400
www.evans-deshazo.com

MANAGEMENT SUMMARY

Evans & De Shazo Inc. (EDS) completed an archaeological site sensitivity study and based on the results of the study developed a Cultural Resources Monitoring Plan (CRMP) for the proposed Gateway Family Housing Redevelopment Project (Project) located within a 2.6-acre site located at 1345 Willow Road, Menlo Park, San Mateo County, California (Project Area) that currently contains 82 multifamily units in 17 buildings and associated infrastructure. The scope of the archaeological site sensitivity study was to assess the potential for historic or prehistoric period archaeological resources to be present within the Project Area, and the scope of the CRMP is to outline procedures that will allow for the identification, evaluation, treatment, and protection of archaeological resources that may be encountered by ground disturbing activities associated with the Project. The CRMP will serve as an agreement document that will govern the actions to be taken if historic properties are discovered during the implementation of the Project.

The archaeological site sensitivity study determined that the prehistoric archaeological sensitivity of the Project Area is high, and that the historic archaeological sensitivity of the Project Area is low. Due to the potential for the Project Area to contain either surficial or buried prehistoric archaeological resources, archaeological monitoring by a Secretary of Interior-qualified archaeologist is during Project-related earth-disturbing activities that have the potential to encounter archaeological resources.

The CRMP outlines the procedures to be followed should archaeological resources be encountered within the Project Area during archaeological monitoring, and includes a research design to follow in the event that potentially significant archaeological resources are discovered during excavation associated with the Project.

The archaeological site sensitivity study and CRMP presented herein includes the following sections:

- A description of the Project and its location;
- A regulatory setting;
- A natural and cultural overview;
- A record search and review that includes a summary of known archaeological resources in the area, and an archaeological site sensitivity analysis;
- A research design; and,
- A monitoring plan to be followed during all ground disturbing activities, including routine monitoring protocols, discovery plans including treatment plans for discovery of any human remains in accordance with the state law, and curation and reporting requirements.

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1.0 INTRODUCTION

In April 2019, AEM Consulting prepared a Historic & Cultural Resources Evaluation for the Gateway Family Housing project that was provided to the State Historic Preservation Officer (SHPO) for review. The SHPO concurred with the delineation of the Area of Potential Effect (APE), which included the Project Area and 25 surrounding properties (26 properties total), as well as the finding that the built-environment resources within the APE are not eligible for listing in the National Register of Historic Places (NRHP); however, the SHPO recommended conducting an archaeological field study, or the preparation of a programmatic agreement document for the undertaking.

EDS has prepared this archaeological site sensitivity study and CRMP at the request of AEM Consulting for the proposed Gateway Family Housing Redevelopment project to assess the potential for historic or prehistoric period archaeological resources to be present within the Project Area, and to outline procedures to allow for the identification, evaluation, treatment and protection of significant archaeological resources that may be unearthed during Project-related earth-disturbing activities within the Project Area. The archaeological site sensitivity study and CRMP was prepared to serve as the programmatic agreement document for the undertaking.

The archaeological site sensitivity study and CRMP identifies the potential for archaeological resources to be discovered within the Project Area and outlines the mitigation measures that will be followed to ensure that adverse impacts to historic properties resulting from Project-related earth-disturbing activities within the Project Area are identified and mitigated following the Secretary of Interior's Standards for Archaeological Documentation.

1.1 PROJECT DESCRIPTION

The Project Area currently contains 82 multifamily units in 17 buildings. Mid-Pen Housing is proposing to temporarily relocate the current occupants of the units, demolish the existing buildings, abandon an existing easement at the site frontage, and construct a new 140-unit affordable housing project with onsite parking, community room and amenities. The unit mix will include 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. The Project will utilize funds from the U.S. Department of Urban Development (HUD), and is therefore subject to review under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800.

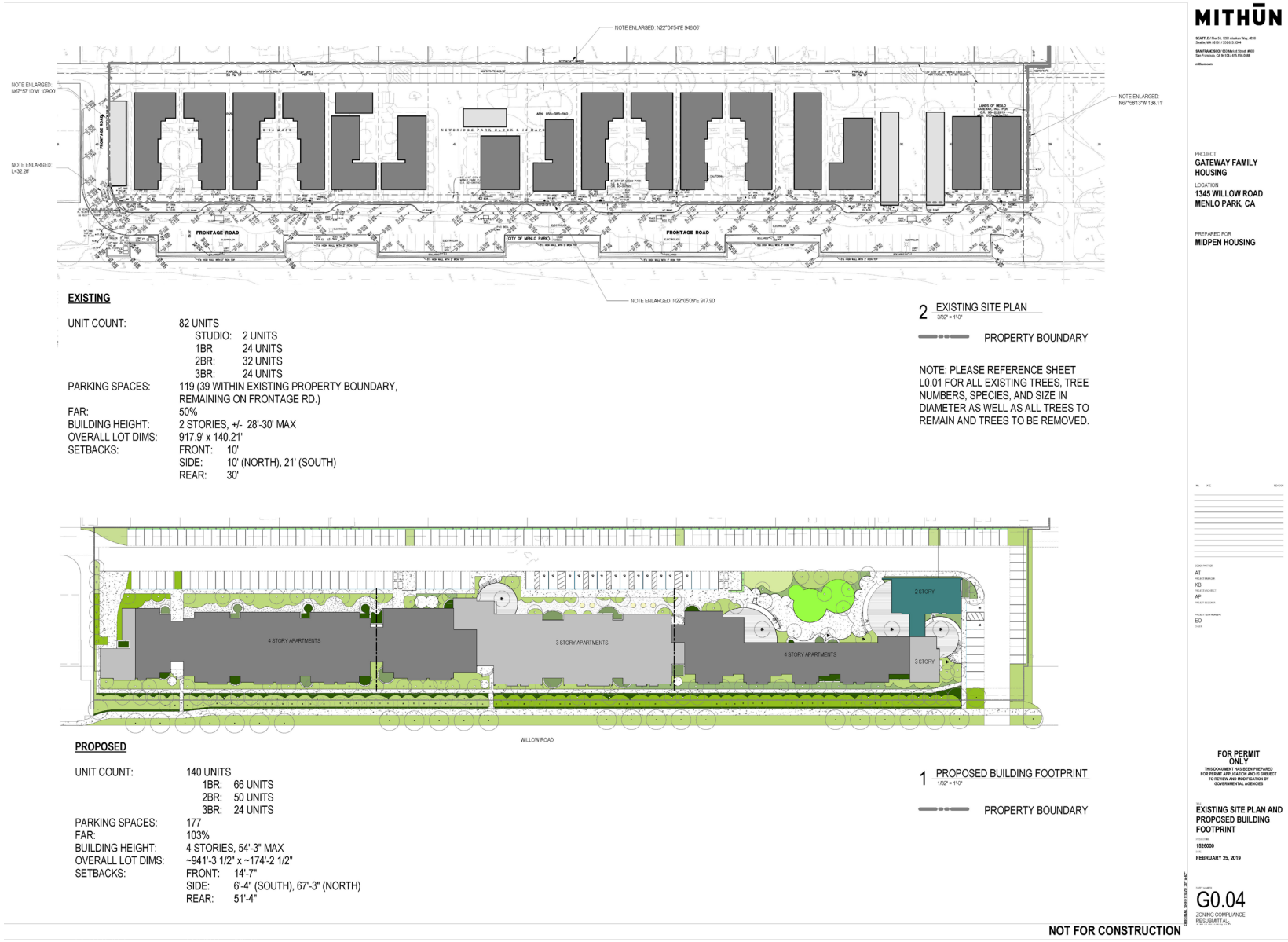

Figure 1: Existing Site Plan and Proposed Building Footprint. Prepared by Mithūn, 2/25/2019.

1.2 PROJECT LOCATION

The Project Area is located at 1345 Willow Road, Menlo Park, San Mateo County, California within Assessor Parcel Number (APN) 055-383-560 (Project Area) that is 2.6-acres in size (Figure 2). The Project Area is bound on the north by the Chevron Station, on the east by Willow Road, also known as State Route 114, which is an arterial roadway connecting Highway 101 and the Bayshore Freeway, on the south by Soleska Market and Ivy Drive, and on the east by single-family homes.

On the USGS 7.5' Palo Alto, California quadrangle (1991), the Project Area lies in Township 5 South, Range 3 West, Mount Diablo Meridian (Figure 3). The Universal Transverse Mercator (UTM) grid coordinates at the approximate center of the Project Area are: 4148238 meters North and 574933 meters East, Zone 10.

1.3 AREA OF POTENTIAL EFFECT

The regulations implementing the Section 106 review process requires that an APE be defined for the Project (36 CFR 800.16(d)) that takes into consideration direct and indirect effects to historic properties. The APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking".

The area within which the Project has the potential to directly affect historic properties includes the 2.6-acre Project Area (Figure 4). Indirect affects to historic properties were also considered as part of the Historic & Cultural Resources Evaluation prepared by AEM Consulting in April 2019 that included 25 surrounding properties, none of which were found to contain historic properties that could be indirectly affected by the proposed Project.

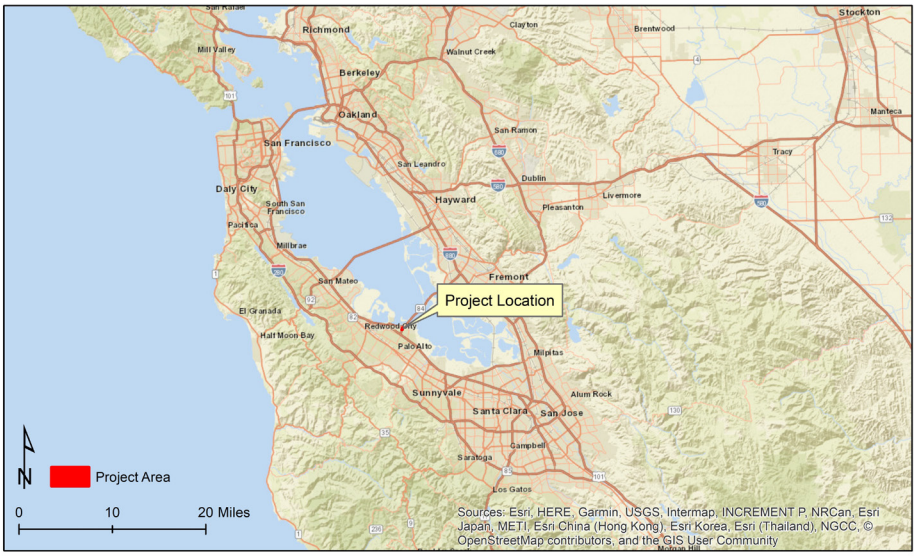

Figure 2: Project vicinity.

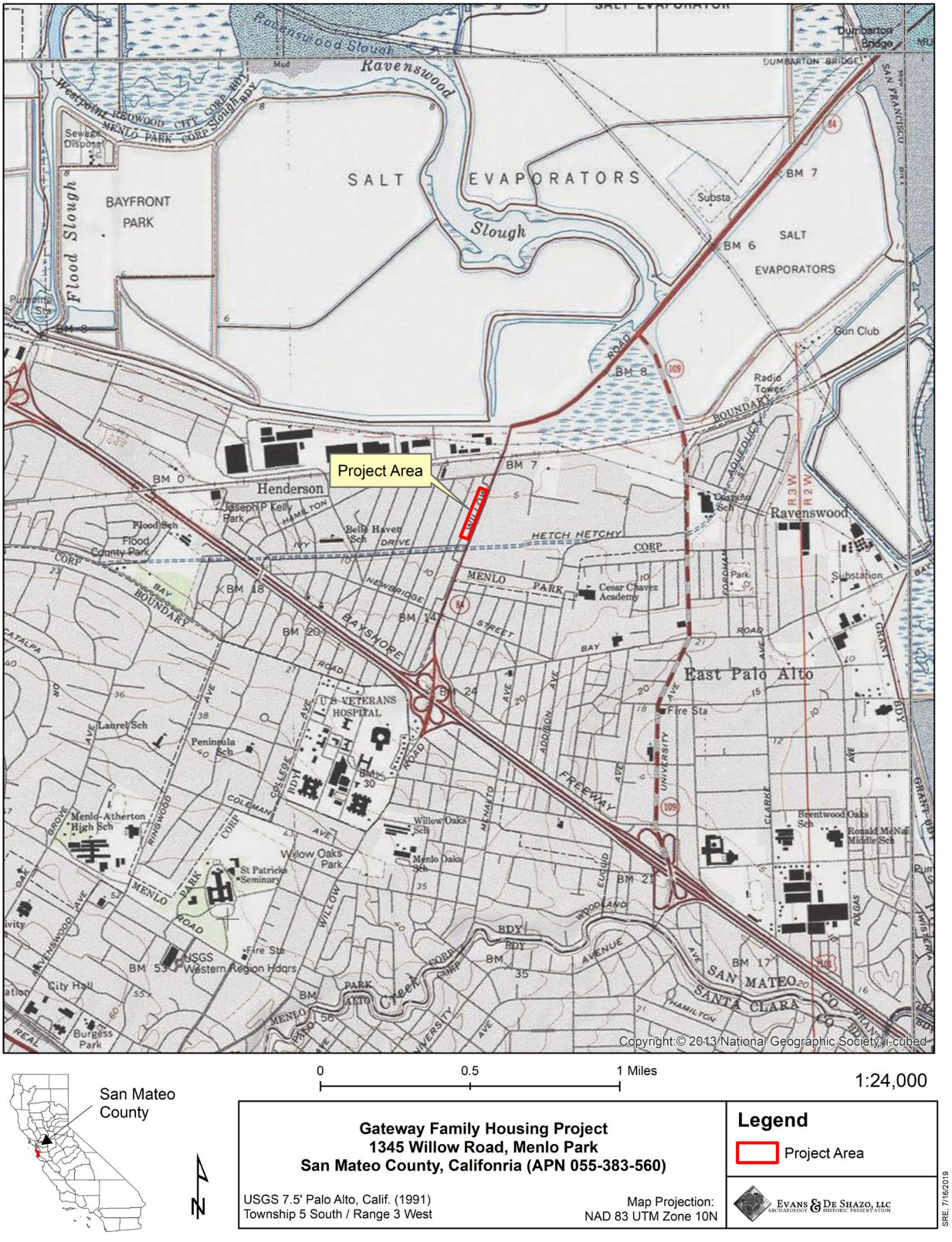

Figure 3: Project Area location map.

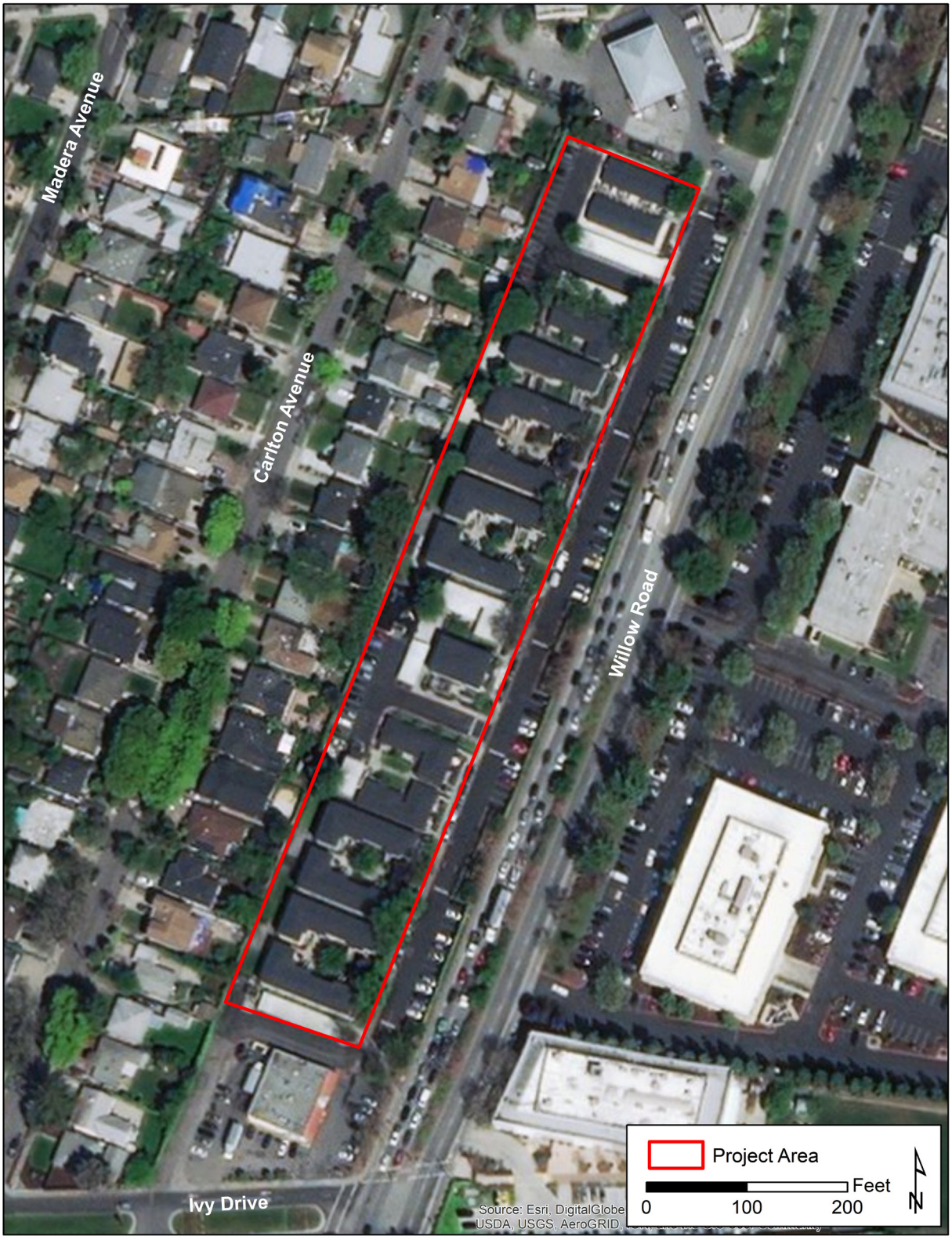

Figure 4: Aerial view of Project Area.

2.0 REGULATORY SETTING

Federal, state and local laws, ordinances, regulations and statures protect cultural resources. Federal laws and regulations related to significant cultural resources would apply only if the project is wholly or partially funded, either direct or indirectly by a federal agency or federal permits or licenses are involved, or if project impacts occur on federally owned or managed lands. The proposed Project is considered an undertaking subject to NEPA and Section 106 of the NHPA review due to financial assistance being provided by HUD for the Project. These regulations, as they pertain to cultural resources, are outlined below.

2.1 THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA [42 U.S.C. 4321 et seq.] establishes national environmental policies and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the Federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

The term "cultural resources" is not defined in NEPA. NEPA address the "human" — social and cultural — aspects of the environment. Culturally valued aspects of the environment generally include historic properties (as defined by the NHPA), sacred sites, archaeological sites not eligible for the NRHP and archaeological collections. The cultural use of natural resources and such "intangible" socio-cultural attributes as social cohesion, social institutions, life ways, religious practices, and other cultural institutions are typically evaluated under the "social impact" category. This HPS will identify the potential adverse and beneficial effects on historic and cultural resources (i.e. historic properties), sacred sites and archaeological sites not eligible for the NRHP that result from implementation of the Project.

2.2 NATIONAL HISTORIC PRESERVATION ACT (NHPA) - SECTION 106

Section 106 of the NHPA pertains to Federal “undertakings”. A Federal undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. The NHPA directs federal agencies to take into account (through identification, recordation and mitigation) the effects of proposed activities on historic properties and give the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Historic properties are properties that are included in the NRHP or that meet the criteria for the National Register.

2.2.1 National Register of Historic Places

Historic properties are districts, sites, buildings, structures, and objects listed or found eligible for listing in the NRHP. Unlisted properties are evaluated against the National Register criteria to determine eligibility for listing, in consultation with the SHPO or Tribal Historic Preservation Officer (THPO) and any Native American Tribe that may attach religious or cultural importance to them.

The five property types are:

- **Building**: A structure created principally to shelter or assist in carrying out any form of human activity. A "building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.
- **Structure**: A construction made for a functional purpose rather than creating human shelter. Examples include mines, bridges, and tunnels.
- **Object**: Construction primarily artistic in nature or relatively small in scale and simply constructed. It may be movable by nature or design or made for a specific setting or environment. Objects should be in a setting appropriate to their significant historic use or character. Examples include fountains, monuments, maritime resources, sculptures and boundary markers.
- **Site**: The location of a significant event. A prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event and if no buildings, structures, or objects marked it at that time. Examples include trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs.
- **District**: Unified geographic entities which contain a concentration of historic buildings, structures, or sites united historically, culturally, or architecturally.

In order to be included or qualify for the National Register, a building, structure, object, site or district must possess significance in American history, architecture, archaeology, engineering or culture, and must be associated with an important historic context and retain historic integrity of those features necessary to convey its significance. The resource should possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet any of the following criteria:

A. Is associated with events that have made a significant contribution to the broad patterns of our history; or

B. Is associated with the lives of persons important in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or,

D. Has yielded, or may be likely to yield, information important in prehistory or history.

3.0 NATURAL AND CULTURAL OVERVIEW

This section describes the natural and cultural setting of the Project Area and vicinity. The natural setting focuses on climate, topography, geology, and soil of the current and past environments. The cultural setting considers the prehistoric, Native American ethnographic and historic contexts associated with the Project Area. These contexts provide the basis for understanding the nature of historic properties and other cultural resources located within the Project Area.

3.1 ENVIRONMETNAL SETTING

The Project Area is located in the City of Menlo Park, which is a densely populated urban environment at the eastern edge of San Mateo County that has an estimated population of approximately 34,500 people. Located in the southeastern region of the San Francisco Bay Area, Menlo Park borders the cities of East Palo Alto, Palo Alto, and Stanford to the south, Atherton, North Fair Oaks, and Redwood City to the west, and the San Francisco Bay on the north and east.

The City of Menlo Park has a warm and temperate climate characterized by cool winters and moderate summers. According to the Western Regional Climate Center, Menlo Park's average annual temperatures range from about 71 degrees Fahrenheit (F) to 47.1 degrees F. Annual rainfall averages about 19.16 inches per year, with most rainfall occurring between October and April.

The Project Area is situated within a topographically flat area at the eastern edge of Menlo Park at approximately five feet above mean sea level (amsl), and is bordered on the north, west and south by single family houses, and on the east by Willow Road and the Facebook campus. The Hetch Hetchy aqueduct is located approximately 150 feet to the south of the Project Area. The Project Area is also located approximately 1.6 miles south of the San Francisco Bay; however, prior to development of the salt evaporation ponds along the southwestern bay shore, the reclamation of marshlands, and subsequent urban development, the Project Area was situated approximately 850 feet south of the historical tidal marsh and bay lands boundary. The nearest creek is San Francisquito Creek located 1.3 miles to the south (Figure 5).

According to the Geologic Map and Map Database of the Palo Alto 30' x 60' Quadrangle (Brabb et al 2000), the Project Area is situated on a landform that consist of Holocene-age (post 11,700 years before the present) basin deposit (Unit: Qhb) consisting of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to the bay mud, and also contains unconsolidated, locally organic, plastic silt and silty clay deposited in very flat valley floors (Brabb et al. 2000). According to the U.S. Department of Agricultura (USDA) Natural resources Conservation Services (NRCS) soil survey, the soil within the Project Area includes urban land-Orthents, reclaimed complex, 0 to 2 percent slopes, which is soil that occurs on tidal flats and has a variable surface profile (H1 – 0 to 40 inches) followed by silty clay (H2 – 40 to 60 inches) (USDA 2019).

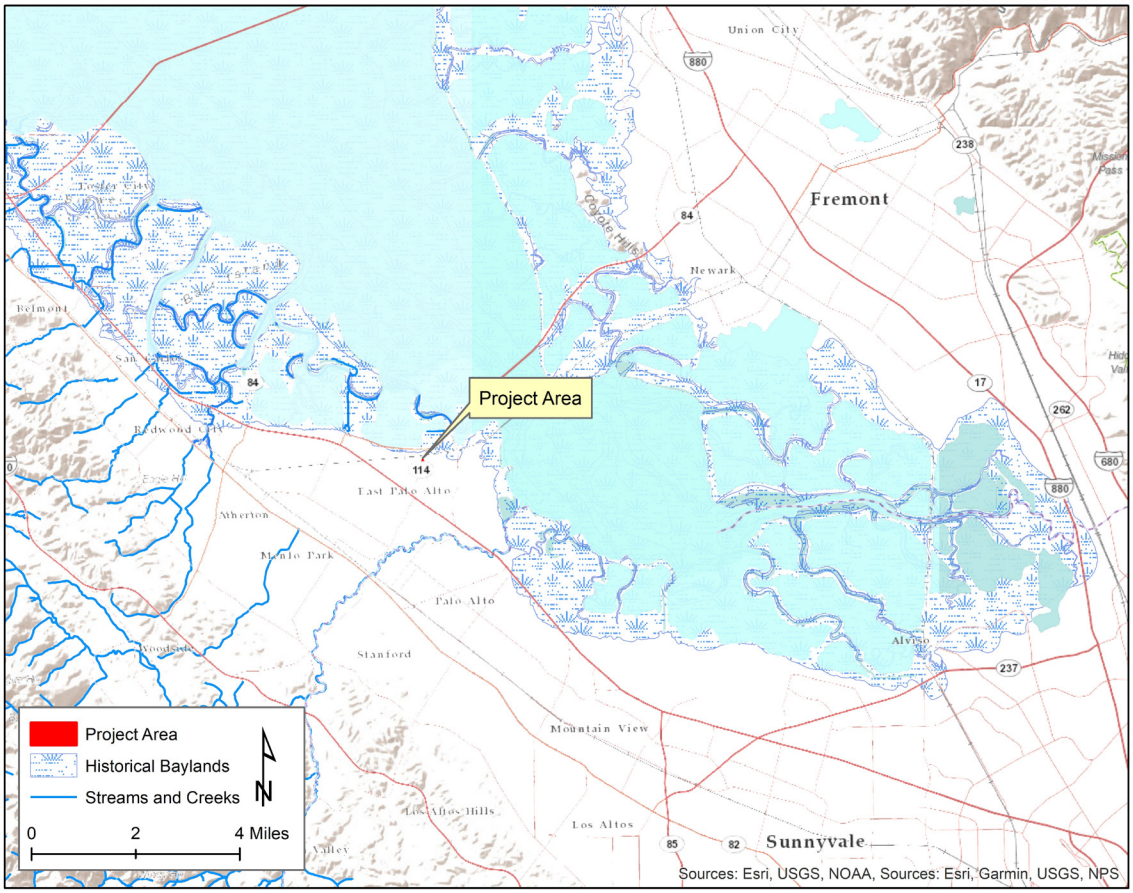

Figure 5: Environmental setting of the Project Area.

3.1.1 Paleo-environmental Setting

The paleo-environmental setting describes changes that have occurred in California's climate, vegetation and landscapes since the terminal Pleistocene. During the Terminal Pleistocene (13,500 - 11,700 cal BP[1]) there was a dramatic shift in vegetation as the climate became warmer compared to the previous period and temperate taxa such as alder, Douglas fir, oak and tanoak appeared. This was immediately followed by a major cooling trend, known as the Younger Dryas at about ca. 12,800 and 11,500 BP, at which time oak woodland and chaparral began to replace coniferous forest species. Also, during this time many of the large herbivores like mammoth, bison, ground sloth, horse and camel, as well as many large carnivores became extinct.

The San Francisco Bay formed after the onset of the Holocene (post 11,700 cal BP) due to a global warming trend that led to glacial melt and a global rise in sea level (Walker et al. 2009). During the Pleistocene, when it was colder, and more water was locked up in ice, the ocean level was lower than current levels and the California shoreline was located much farther to the west than it is today. At the

[1] cal BP denotes calibrated years before the present, with "present" defined as 1950.

time, the San Francisco Bay did not exist, and the Sacramento and San Joaquin Rivers converged before cutting through the Diablo range and the Golden Gate before draining into the Pacific Ocean near the Farallones Islands (Milliman and Emery 1968).

In the Early Holocene (11,700 – 8200 cal BP) cooler and drier conditions continued, but as temperatures rapidly increased, redwood and chemise chaparral taxa expanded, and pines and other conifers diminished. During this time, the ocean waters reached the Golden Gate and began filling the San Francisco Bay (Figure 6). The rise in the water level was rapid at first, but slowed after about 5,000 BP (Parsons 2003). The rising of the bay caused many of the rivers and streams that empty into the bay to aggrade their valleys by depositing sediment, gradually building up the ground surface and burying former surfaces. This process also buried most evidence of human occupation around the San Francisco Bay shoreline prior to this time (Parsons 2003).

The Middle Holocene (8200 – 4200 cal BP) was characterized by lower precipitation and greater temperatures, with warm and dry summers and increased seasonability (Adam and West 1983). As a result, pines, herbs and oak increased while redwood and cedar declined and retreated. Oaks expanded their overall range and moved upslope. The sea level stabilized and rich tidal marshes and extensive mudflats formed around the San Francisco Bay margin (Pestrong 1972).

In the Late Holocene (post 4200 cal BP) climatic conditions were cooler and dryer, but there were frequent shifts from cold to warm and enhanced ENSO[2] cycles that resulted in increased fluvial discharge, lower salinity levels and the formation of new marshes in the San Francisco Bay circa 3800 – 2450 BP (Goman et al. 2008; Starratt and Barron 2010). Beginning about 4,000 BP there was a rise in conifer-dominated assemblages and a decrease in oaks, due to an increase in moisture, but this trend reversed between about 1,300 to 700 BP due to an onset of warmer, dryer conditions, which characterized the Medieval Climatic Anomaly (MCA) that lasted from about 1150 - 600 BP. The MCA was marked by two severe drought periods separated by a period of greater precipitation (Schwitalla 2013), and was followed by the Little Ice Age (ca. 650-150 BP) that featured cool wet conditions (Schwitalla 2013), cooler sea surface temperatures (Hendy 2010), and an influx of sediment into the San Francisco Bay (Malamud-Roam and Ingram 2010). The extensive alluvial deposition that occurred during wet periods also buried archaeological sites that existed along the flood plains of creeks and rivers during this time (Lightfoot and Luby 2002).

In historic times (ca. 250 BP to present) the introduction of non-native plant species, the cessation of Native American land-management practices, including fire management, the onset of crop production and animal husbandry, industrialization, and urban growth and development have all contributed greatly to a changed landscape that no longer reflects the landscape inhabited by human populations that existed in prehistoric times.

[2] El Niño-Southern Oscillation (ENSO) is an irregularly periodic variation in winds and sea surface temperatures over the tropical eastern Pacific Ocean. The warming phase of the sea temperature is known as El Niño and the cooling phase as La Niña.

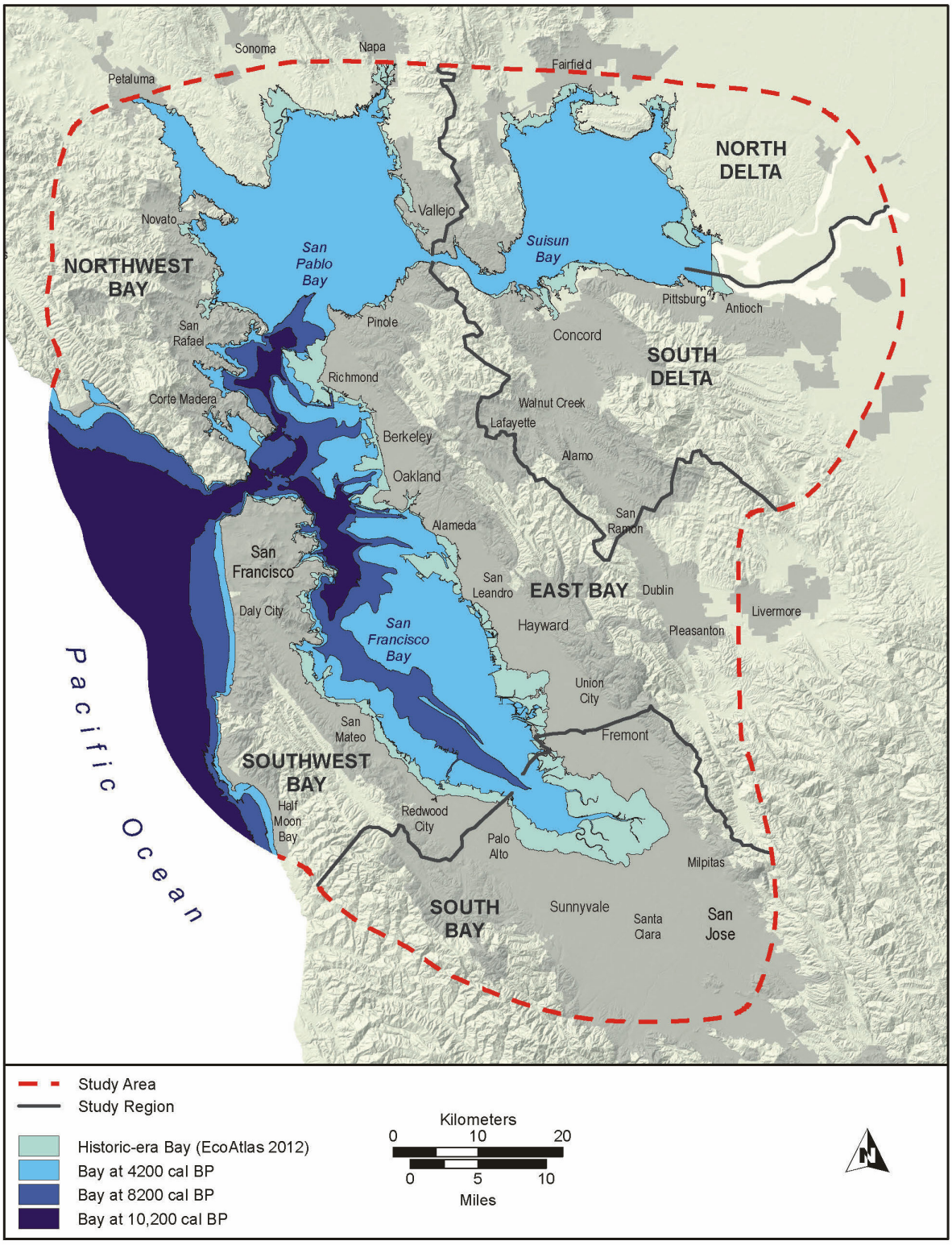

Figure 6: Evolution of the San Francisco Bay (after Meyer et al. 2013) (Byrd et al. 2017).

3.2 PREHISTORIC CULTURAL SETTING

The formation of the San Francisco Bay in the Middle Holocene allowed for dense populations to settle along the Bay Shore and neighboring areas because the freshwater marshes, salt marshes, mud flats and open waters of the San Francisco Bay were extremely productive in natural resources during prehistoric times (Lightfoot and Luby 2002). The marshlands and mudflats supported clams, mussels, oysters, crabs, and several fish species, and the open water supported green and white sturgeon, Chinook and Coho salmon, bat rays, thresher and leopard sharks, surf perch, jack smelt and marine mammals, such as sea otters, harbor seals, and sea lions. There were also numerous migratory water birds and shorebirds present, like ducks, geese, cormorants, loons and grebes (Lightfoot and Luby 2002). The surrounding terrestrial landscape contained extensive grassland and oak woodland that supported a variety of plant and animal resources. From these areas, Native Americans gathered a variety of nuts, seeds, berries, greens and tubers, and hunted large terrestrial animals like deer, elk and pronghorn antelope, as well as smaller fauna like jackrabbit, brush rabbit, squirrel, wood rat and quail (Lightfoot and Luby 2002; Moratto 1984). Historically, the Project Area was situated approximately 850 feet south of the historical tidal marsh and bay lands boundary and consisted of grassland-bay marsh ecotones that would have been favorable for human occupation.

3.2.1 Central California Taxonomic System (CCTS)

The Central California Taxonomic System (CCTS) is a scheme that chronologically classifies archaeological manifestations observed in central California. The CCTS is a sequence represented by broad spatial and temporal levels. It was initially based on archaeological research conducted in the Delta and Lower Sacramento Valley regions of California (Lillard et al. 1939; Lillard and Purves 1936; Heizer and Fenenga 1939), and was later expanded to include the Bay Area using information from earlier archaeological excavations at the Emeryville Shellmound (CA-ALA-309) in Alameda County, as well as the Ellis Landing Shellmound (CA-CCO-295) and Fernandez Site (CA-CCO-295) in Contra Costa County (Beardsley 1954). B.A. Gerow and others criticized the CCTS for being too rigid in its chronological sequence and for failing to separate cultural and temporal dimensions (Gerow 1954, 1974; Gerow with Force 1968). To address this problem, Fredrickson (1973, 1994) proposed a new taxonomic system for the North Coast Ranges, the San Francisco Bay, including some interior Contra Costa sites, and the lower Sacramento Valley using a cultural sequence based on Patterns, Phases and Aspects[3]. Within the San Francisco Bay area, three main cultural patterns are recognized: Windmiller, Berkeley (Lower, Upper and Meganos Aspect) and Augustine. In the past, Archaeologists conducting work in the San Francisco Bay Area used the CCTS, but Archaeologists conducting work in the northern Bay Area tended to use Fredrickson's Archaic-Emergent temporal sequence. However, a hybrid classification has emerged for the San Francisco Bay Area that uses the Early-Middle-Late Period sequence of the CCTS and the pattern-aspect-phase cultural sequence

[3] Patterns are units of culture having similar economic and technical manifestations, mortuary patterns, concepts of wealth, and trade practices. Phases are cultural manifestations within a Pattern bounded by time and region. Aspects are cultural units bounded regionally, but not temporally (Fredrickson 1973, 1974).

developed by Fredrickson, but is anchored in time by two radiocarbon-based sequences known as Scheme D and Scheme D2 (Groza 2002; Groza et al. 2011; Milliken et al. 2007). The current Scheme D is based on stylistic temporal variations in well-dated and widely traded shell bead types (Groza et al. 2011).

The following summary is a cultural chronology for the San Francisco Bay-Delta region that is based on the hybrid classification system organized by geologic time segments that include the Terminal Pleistocene (13,500 – 11,700 cal BP), Early Holocene (11,700 – 8200 cal BP), Middle Holocene (8200 – 4200 can BP), and Late Holocene (post 4200 can BP). The Late Holocene is further divided into shorter time periods using the Late Holocene Scheme D chronological sequence for the San Francisco Bay Area (Table 1) that is divided into the following time periods: Early Period (4200–2550 cal BP), Early/Middle Transition Period (2550–2150 cal BP), Middle Period (2150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), Late Period (685–180 cal BP), and Historic/Mission period (180-115 cal BP).

Table 1. Late Holocene Scheme D Chorological Sequence for San Francisco Bay-Delta Area following Groza et al. 2011 (Byrd et al. 2017: 3-20, Table 3).

CAL BP	EXTENT (YEARS)	CALENDAR YEARS	DATING SCHEME D (GROZA ET AL. 2011)		CULTURAL PATTERN [c]
			TEMPORAL PERIODS [a]	ARRAY OF DIAGNOSTIC *OLIVELLA* BEAD TYPES [b]	
180–115	65	AD 1770–1835	Historic/Mission (H)	Needle drilled (H)	na
430–180	250	AD 1520–1770	Late 2 (L2)	Lipped (Class E)	Augustine
685–430	255	AD 1265–1520	Late 1 (L1)	Normal sequin (M1a) Pendant (M2) Callus cupped (K1) End-ground (B2)	
930–685	245	AD 1020–1265	Middle/Late Transition (MLT)	Normal sequin (M1a) Split drilled/oval (C2/3) Split punched (Class D) Split amorphous (C7) Tiny saucer (G1) Wide sequin, occasional (M1d)	
1200–930	270	AD 750–1020	Middle 4 (M4)	Normal narrow saddle (F3a) Rectanguloid/Oval saddle-smooth edges (F4c/d) Full saddle-smooth edges (F4a/b)	Upper Berkeley
1365–1200	165	AD 585–750	Middle 3 (M3)	Small narrow saddle (F3b) Normal narrow saddle (F3a) Irregular saucer (occasional; G5)	
1530–1365	165	AD 420–585	Middle 2 (M2) [c]	Normal narrow saddle (F3a) Rectanguloid/Oval saddle-chipped edges (F2c/d) Full/Round saddle-chipped edges (F2a/b) Full saddle-smooth edges (F4)	
2150–1530	620	200 BC–AD 420	Middle 1 (M1)	Saucer (Class G) Split-drilled/oval (C2/3) Oval saddle (F1)	
2550–2150	400	600–200 BC	Early/Middle Transition (EMT)	Split beveled (?) – no wall beads? (C1)	
+4050–2550	1,500+	+2100–600 BC	Early (E)	Thick rectangle (Class L)	Lower Berkeley

Notes: [a] Periods are based on temporal duration of diagnostic shell bead styles; abbreviations in parentheses; [b] Listed by relative predominance; [c] Fredrickson (1994). Groza et al. (2011:Figure 3) has inconsistent start dates for EMT and Late 2 (but see page 7-15 and Figure 37 for revised start date for EMT)

3.2.2 Terminal Pleistocene (13,500 – 11,700 cal BP)

Solid evidence of human occupation in California during the Terminal Pleistocene (13,500 – 11,700 cal BP) is scarce and poorly understood; however, there have been some discoveries of isolated fluted projectile points California that are thought to be similar in cultural affiliation and age as the fluted points associated with the Clovis tradition dating to around 11,500 cal BP. While fluted points are rare in California, they have been documented at the Borax Lake site (CA-Lak-36) in Lake County (Meighan and Haynes 1970; Moratto 1984:82–85), at Tracey Lake in the Delta (Heizer 1938), at the Wolfsen mound (CA-MER-215) along the middle San Joaquin River in Merced County (Peak and Weber 1978), and in the Mojave Desert and coastal southern California (Byrd et al. 2017). No fluted points or archaeological deposits dating to the Terminal Pleistocene have been documented in the San Francisco Bay Area (Byrd et al. 2017). The paucity of Terminal Pleistocene archaeological remains is, in part, because populations were small, highly mobile, and left little evidence of their activities on the landscape. Furthermore, landscape changes, including sea level rise, erosion and localized subsidence along the coast has buried evidence of these sites (Byrd et al. 2017).

3.2.3 Early Holocene (11,700 - 8200 cal BP)

During the Early Holocene (11,700 – 8200 cal BP) semi-mobile hunter-gatherers utilized a wide range of plant and animal foods from marine, lacustrine, and terrestrial environments (Erlandson et al. 2007; Jones et al. 2002; Meyer and Rosenthal 1995; Moratto 2002). Populations that emerged in the San Francisco Bay-Delta region were mobile foragers, characterized by a "Millingstone culture" that used milling slabs and handstones, crude cores and core tools, and various types of large wide-stemmed and leaf-shaped projectile points (Milliken et al. 2007:114; Wiberg 2010:31). The settlement pattern is thought to be based on high residential mobility and limited exchange (Wiberg 2010:31). There are only four Early Holocene-age archaeological deposits documented in the San Francisco Bay-Delta region, including two at Los Vaqueros Reservoir (CA-CCO-696 and CA-CCO-637) in eastern Contra Costa County (Meyer and Rosenthal 1997, 1998), one in Solano County (P-48-000897) (Hildebrandt et al. 2012), and one in Alameda County (P-01-011556) (Meyer 2015), all of which were found in a buried context.

3.2.4 Middle Holocene (8200 – 4200 cal BP)

There is more direct evidence of occupation in the San Francisco Bay-Delta region during the Middle Holocene than in previous periods, as indicated by the 60 plus sites that have been documented in the San Francisco Bay-Delta region dating to this period (Byrd et al. 2017). Artifacts found in sites dating to this period include a variety of ground stone tools (mortars/pestles and metates/manos), side-notched dart points, cobble tools, and a variety of shell beads and ornaments (Fitzgerald 1993; Meyer and Rosenthal 1998). The presence of an extensive trade network by at least 5200 cal BP is indicated by the Type N *Olivella* shell beads that are found in sites across a large region, and obsidian from sources located the Napa Valley and eastern Sierra Nevada (Casa Diablo and Bodie Hills sources) that are found in sites located throughout the San Francisco Bay-Delta region (Byrd et al. 2017). The first evidence for use of the San Francisco Bay's estuarine resources is also indicated during this period by the presence of shell midden deposits in Marin County (CA-MRN-17), Contra Costa County (CA-CCO-474/H), and in San

Mateo County (CA-SMA-40) that date between 6300 and 5000 cal BP, and at least two sites in Alameda County (CA-ALA-307 and CA-ALA-566) that date to 4900 cal BP and ca. 5000 cal BP, respectively (Blake 2016; Byrd et al. 2017). Faunal remains indicate reliance on seasonal waterfowl, anadromous and freshwater fish, as well a variety of nuts and small seeds, including acorn, gray pine, bay, buckeye, red maids, goosefoot, farewell-to-spring, juniper, and manzanita berry (Wohlgemuth 2010), which suggest that a wide range of habitats were exploited throughout the year (Byrd et al. 2017), consistent with a mobile foraging pattern. In addition, a human skeleton identified within a site in east-central San Mateo County (CA-SMA-273) dating to the Middle Holocene was uncovered 3.7 meters (12 feet) below the surface of San Francisco Bay during dredging operations off Coyote Point (Leventhal 1987), thus indicating that sites from this period located along the Bay Shore may be buried under Holocene-age alluvium.

3.2.5 Late Holocene (4200 – 180 cal BP)

Due to the greater number of archaeological sites that have produced stylistic artifacts and radiocarbon dates, there is more information about Late Holocene occupation than in earlier periods, and as such the Late Holocene can be subdivided into more specific time periods. As such, the Late Holocene is generally divided into the Early Period (4200–2550 cal BP), Early/Middle Transition Period (2550–2150 cal BP), Middle Period (2150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), and Late Period (685–180 cal BP). "The Late Holocene is very well-documented in the Bay-Delta Area, with more than 240 radiocarbon-dated sites reflecting widespread occupation" (Milliken et al. 2007).

Early Period (4200 – 2550 cal BP)

The Early Period (4200–2550 cal BP) marks a shift from a mobile foraging pattern to a sedentary and semi-sedentary land use pattern along the Bay Shore and interior valleys (Milliken et al. 2007). This more sedentary way of life seems to have been in response to the availability new resources as the San Francisco Bay estuary matured, and an increased dietary reliance on acorns rather than hard seeds. As a result, populations in the San Francisco Bay region increased in number, and the social organization became more complex, which is evidenced by mortuary practices and an increase in ornamental grave associations, regional symbolic integration and the establishment of trade networks. "Bay margin sites reveal a strong emphasis on marine shellfish, marine fishes, and marine mammals…In contrast, interior sites emphasized freshwater fish and shellfish along with terrestrial mammals. Nuts, berries, and small seeds appear to have been particularly important plant foods" (Byrd et al. 2017). Cultural patterns that emerged in the San Francisco Bay region during this period include Windmiller in the Delta Region and Lower Berkeley along the Bay Shore. Artifacts that typify the Early Period include corner-notched, concave-based, lanceolate, and side-notched style projectile points, cut marine shell (*Olivella* sp.) beads that are often found in a mortuary context, mortars and pestles, and more obsidian from Napa Valley sources than Annadel obsidian from Sonoma County (Milliken et al. 2007). The Early Period was also marked by significant climatic changes during which warmer and drier conditions led to desiccation of lake basins in southern California (Schwitalla 2013).

Middle Period (2150–930 cal BP)

The Middle Period (2150–930 cal BP) is marked by a population increase and a greater level of sedentism, as indicated by evidence of permanent villages used most of the year (Milliken et al. 2007). The population increase led to restricted mobility, which in turn led to resource intensification, increased cooperation and a greater level of social complexity (Milliken et al. 2007). In the latter half of the Middle Period and the Middle/Late Period Transition (930–685 cal BP), a dramatic cultural disruption occurred, marked by changes in shell bead types, settlement patterns and food resources (Milliken et al. 2007). The Berkeley Pattern, which developed from the preceding Lower Berkeley Pattern, was well established by the Middle Period (Moratto 1984). Berkeley Pattern traits typically include tightly flexed burials, with fewer grave offerings and no preference toward orientation. Cremations are occasionally encountered and are associated with more grave goods than flexed burials, a mortuary treatment suggesting differentiation in wealth or status. Burial artifacts typically include *Olivella* saddle and saucer beads and *Haliotis* pendants. Berkeley Pattern sites are also characterized by utilitarian objects that include numerous mortars and pestles, which imply greater reliance on nuts and seeds, as well as a highly-developed bone tool industry. New types of bone tools, such as the single-barbed bone fish spear, indicate a greater reliance on fish and marine mammals like sea otter, seal and sea lion (Elsasser 1978; Hildebrandt and Jones 1992). Shellfish collecting was also very important. This is indicated by the deposition of large quantities of shell, mostly mussel, which make up a good portion of shellmound constituents. Hunting is implied by spear and dart-sized projectile points, which were propelled using an atlatl, as well as high frequencies of deer and elk remains (Beardsley 1954; Hildebrandt and Jones 1992).

Middle/Late Transition Period (930–685 cal BP)

Starting at the end of the Middle Period and continuing in the Middle/Late Period Transition many Bay Shore residential sites were abandoned and new residential sites were established (Eerkens and Bartlink 2019; Lightfoot and Luby 2002). The reasons postulated for the abandonment of shellmound sites along the Bay include variable climate conditions and the availability of marine resources due to the MCA, a shift towards greater reliance on acorns rather than shellfish, intrusion of Patwin speaking people into the North Bay, or the return to a semisedentary settlement system whereby year-round occupation of shellmounds gave way to seasonal use of interior localities (Ingram 1998; Lightfoot and Luby 2002; Schwitalla 2013). It is notable that there appears to have been major cultural changes happening throughout central California during this time that include increases in population density, shifts in the nature of interpersonal violence, a decrease in the average age of weaning, and changes in settlement patterns (Eerkens and Bartlink 2019).

Late Period (685–180 cal BP)

Occupation during the Late Period (685–180 cal BP) is well-documented in the San Francisco Bay-Delta region, and is thought to be associated with a new level of sedentism, status ascription, an increase in ceremonialism, and regional trade. It appears that an economic relationship was maintained among the many small autonomous socio-political groups called tribelets, and trade was frequent between coastal

groups, valley groups and Bay Shore groups (Hylkema 2002). Sites from this time period are associated with the Augustine Pattern and artifacts typically include large, well-formed mortars, pestles and hopper mortars that indicate a continued reliance on acorns, flanged steatite smoking pipes, toggle harpoons, baked clay figurines, clamshell disk beads, small projectile points such as the Rattlesnake corner-notched and Desert side-notched points that suggest the use of the bow-and-arrow (use of the bow and arrow is first documented in the region circa 700 cal BP) in oppose to the atlatl that was used previously in conjunction with spear points, steatite and magnesite beads and tubes, *Olivella* callus cup beads, and *Haliotis* banjo shaped pendants. The manufacture of clamshell disk beads, which were used as exchange currency with a standardized value, seems to have centered primarily on the Santa Rosa Plain in Sonoma County and within the Napa Valley. The burial practice of cremation was also introduced in the North Bay during this time (Milliken et al. 2007). These shifts in technology, artifact types and mortuary practices appear to indicate that another upward cycle of regional integration took place during this period. However, this cycle was stopped short by Spanish colonization and missionization of Native populations.

3.3 ETHNO-HISTORIC SETTING

The Project Area is situated within a territory that was occupied by the Costanoan (also known as Ohlone[4]). The first instance of European contact with Costanoan people occurred in late 1769 when Gaspar de Portola "discovered" the San Francisco Bay, the initiating event of European colonization of the area (Milliken 1995). Early accounts documented that there were approximately 10,000 Costanoan people living around the Bay. However, with the arrival of the Spanish came the establishment of missions with a concerted effort to convert the Native population to Catholicism and the introduction of European disease for which the Natives had no immunity, and these factors quickly led to the demise of Bay Area populations (Milliken 1995). According to mission records, the Costanoan organization was severely disrupted by 1810, and by 1832 only 2,000 Costanaon people had survived (Cook 1943). Much of the ethno-historic literature pertaining to the Costanoan comes from the diaries of early Spanish explorers describing their incursions into the San Francisco Bay region between the years 1769 and 1776. This information is supplemented by early ethnographers who located Native informants and obtained information about language, territory, material cultural, political and social organization and subsistence practices.

The word *Costanoan* is from the Spanish word Costaños, which means "coast people," and refers to a language family not a political entity. Modern descendants of the Costanoan prefer to be called Ohlone, a name derived from a Native coastal village by that name (Heizer and Elsasser 1980). The two names (Costanoan and Ohlone) are used interchangeably in much of the ethnographic literature. The Costanoans spoke a language considered one of the major subdivisions of the Miwok-Costanoan, which belonged to the Utian family within the Penutian language stock (Shipley 1978). It has been postulated

[4] Modern descendants of the Costanoan prefer to be called Ohlone, a name derived from a Native coastal village by that name (Heizer and Elsasser 1980).

that Penutian-speaking ancestral Costanoans moved into the region and replaced or assimilated with an earlier Hokan-speaking population as early as 4,500 B.P. (Moratto 1984).

Costanoan denotes a family of eight languages, four of which were spoken by people occupying the San Francisco Bay area (Figure 7). Each language group was subdivided into smaller village communities or tribelets (Figure 8). These independent political entities occupied specific territories, eight to twelve miles across and defined by physiographic features (Milliken 1995). Each tribelet controlled access to the natural resources within its territory, which typically required that there be one or more primary villages and numerous smaller villages used seasonally for resource procurement. Usually, a common language was shared with one or more neighboring tribelets (Heizer and Elsasser 1980). The San Francisco peninsula, including the area of Menlo Park was occupied by the *Ramaytush*, who numbered about 1,400 and consisted of about twelve tribelets, including the *Lamchin* who occupied the area that extended from Belmont south to Redwood City and included interior valleys to the west (Levy 1978:485; Milliken 1995:246-247). Five *Lamchin* villages are mentioned in historic mission records, the most important of which was "Cachanigtrac, alias Las Pulgas" that was located on Pulgas Creek in the present-day city of San Carlos. The other villages included Ussete, Guloinsisac, Oromstac, and Ssupichom (Milliken 1995:247).

The largest village in a tribelet area was occupied by a chief (Heizer and Elsasser 1980). Both men and women acted as chief, who was responsible for organizing activities; however, "Costanoan ideas of personal freedom precluded the existence of any type of institutionalized coercive power" (Levy 1978).

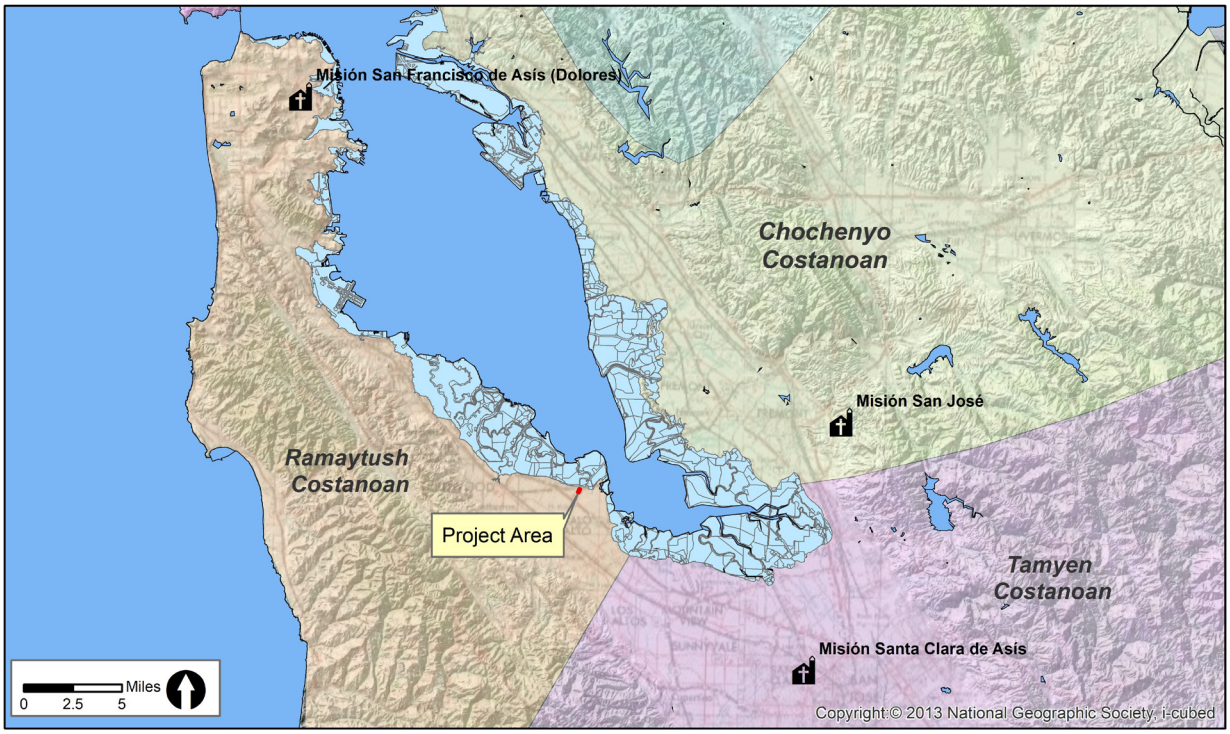

Figure 7: Ethno-historic tribal communities in the vicinity of the Project Area.

Figure 8: Tribelets occupying the southwest area of the San Francisco Bay at the time of Spanish settlement in 1776 (adapted from Milliken 1995, and East Bay Regional Park District map of tribal territories).

The Costanoan were successful hunter/gatherers who utilized a wide range of resources in a very favorable environment. They practiced specialized horticultural techniques, including the use of fire, that increased the numbers and health of the numerous plants and animals on which they relied. A variety of plant foods were gathered on a seasonal basis. Important plant foods included the nuts of coast live oak, valley oak, California black oak, tanbark oak, buckeye, California laurel and hazelnuts. The acorns from oaks were the most important plant food, and were collected in large quantities and stored. They were processed by removing the hard-exterior shells, pulverizing the inner nut in a mortar bowl (basketry, wood, and stone mortars of various types were used), then leaching with water to remove the tannins. Buckeyes were made edible in much the same way. Seeds that were roasted before consumption included dock, tarweed, chia, and gray pine. Hazelnuts and California laurel nuts were also eaten, as well as seeds from a number of other plants. Many types of berries, including blackberries, elderberries, strawberries, Manzanita berries, gooseberries, madrone berries, grapes and toyon berries were also collected and eaten, as well as a number of tubers and roots such as wild onions, cattail roots, amole, hog fennel and wild and tubers (Levy 1978). In the hills and valleys some mammals that were hunted included deer, elk, antelope, bear, rabbit, squirrel, woodrat, mouse and mole.

The bow-and-arrow constituted a part of the hunting technology. Both unbacked and sinew backed bows ranging from 3 to 4½ feet long were used to launch arrows fitted with lithic or bone points. Bowstrings were manufactured from animal sinew or vegetal fibers. The typical arrow was a compound arrow consisting of a cane shaft fletched with three feathers and a hardwood foreshaft to which a

projectile point was usually, but not necessarily, attached. Hunting arrows seem to have been rather long in comparison to war arrows. Asphaltum was used as the adhesive for fletching (Levy 1978; Switzer 1974).

Basketry was a well-developed craft and baskets were used for the collection, preparation and storage of food, and for a variety of other reasons. Other kinds of baskets included mush bowls, cooking baskets, parching trays, storage baskets, sifters, fish traps, trinket containers, canteens, and possibly cradles (Levy 1978). The Costanoan also constructed "balsa" boats using about twenty bundles of tule reeds, also called bulrushes, tied together with cordage made from milkweed, Indian hemp or nettle, that were stabilized with Willow poles. They were propelled using double-bladed wooded paddles and anchored with stones tied to a rope (Font 1930; Levy 1978). Boats were used to navigate the Bay and major river systems, and during hunting and gathering forays. The presence of archaeological sites on islands in San Francisco Bay suggest the use of balsa boats as early as 3,400 BP (Morgan and Dexter 2008).

3.4 HISTORIC SETTING

The following historic setting is intended to provide an overview of the broader historic themes, as well as specific historic contexts potentially associated with any archaeological resources that could be located within the Project Area.

3.4.1 Spanish Period (1772 - 1821)

The discovery of San Francisco Bay was due to the determination of King Carlos III of Spain to occupy and colonize "Alta California"[5], and was the joint work of both church and state. The Spanish entered present-day San Mateo County as early as 1769 with the Portola expedition, and was likely the first historic contact with the native people who occupied the peninsula. The expedition encountered *Lamchin* men, but may not have passed through any *Lamchin* villages (Milliken 1995:34). The Portola expedition was soon followed by the Fages-Crespi expedition in 1772 that traveled from Monterey up the Santa Clara Valley then along the Fremont Plain, east of the San Francisco Bay, to the delta area before heading back to Monterey through the San Ramon Valley and Pleasanton areas (Cook 1957). The expedition of Juan Bautista de Anza accompanied by Father Pedro Font (Anza-Font expedition) traveled through the same area four years later, in 1776; however, this expedition visited a small *Lamchin* settlement in present-day Belmont on Laurel Creek (Milliken 1995:52-53). The Anza-Font expedition consisted of Lieutenant Jose Moraga, Father Crespi, eleven soldiers and two servants (Mildred et al. 2002). These expeditions resulted in establishment of the Presidio of San Francisco and Mission San Francisco de Asis (1776) in present-day San Francisco, Mission Santa Clara de Asis (1777) in present-day Santa Clara, and the Mission San Jose de Guadalupe (1797) located in present-day City of Fremont. The arrival of the Spanish and the establishment of missions led to the rapid demise of the Costanoan

[5] *Alta California* was a polity of New Spain founded in 1769 and became a territory of Mexico after the end of the Mexican War of Independence on 1821.

population and culture, as efforts to missionize the Natives were strong, and diseases were introduced by early explorers and missionaries for which the Natives had no immunity.

During this time, the Project Area was included in a 35,240-acre land grant, called *Rancho de las Pulgas*, that was given in 1795 by Spanish Governor of Alta California, Diego de Borica, to José Darío Argüello who was the commanding officer of the Monterey, San Francisco, and Santa Barbara presidios. The rancho known as "Las Pulgas" appears to have obtained its name due to an incident that happened on October 27, 1769 when the Portola Expedition camped near the ocean shore in an abandoned Indian village at the mouth of Purisima Creek. According to a diary written by Miguel Costanso, the Army Engineer with the Portola Expedition, the campsite was infested with "las pulgas," which when translated means fleas (Miguel Costansó 1770). The *de las Pulgas* land grant was bounded by San Mateo Creek on the north and San Francisquito Creek on the south, and encompassed present-day cities of San Mateo, Belmont, San Carlos, Redwood City, Atherton, and Menlo Park.

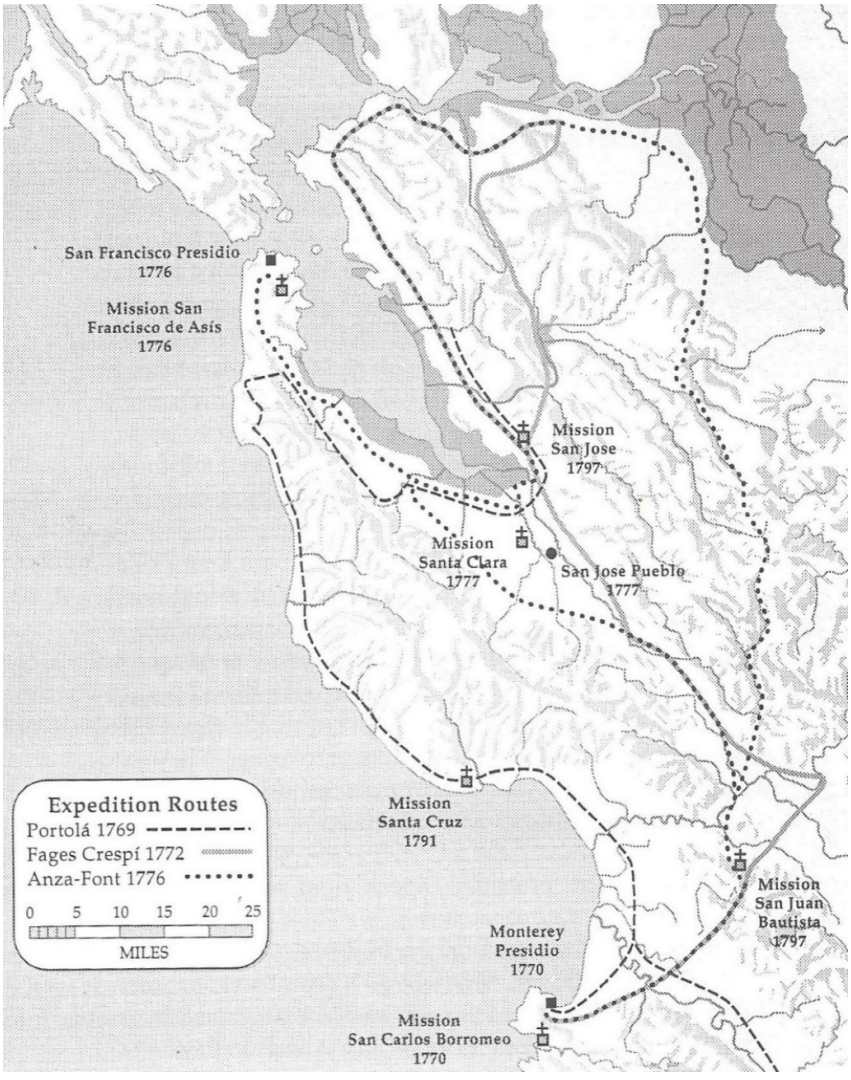

Figure 9: Routes of three key Spanish incursions into the San Francisco Bay Area between 1769 and 1776, and the locations of Spanish settlements through 1810 (Milliken 1995:33).

3.4.2 Mexican Period (1821 – 1848)

In 1821, Mexico won its independence from Spain with the signing of the Treaty of Córdoba and took possession of Alta California, marking the end of the Spanish period and the beginning of the Mexican period in Alta California. Many changes occurred throughout California under Mexican rule due to the lack of strong oversight and military rule imposed by the Spanish. Under the new Mexican Republic, missions were secularized, which resulted in Mission land and property being dissolved. New opportunities for trade also arose, as foreign ships that had previously been held off by Spanish guarded military ports were allowed to dock and sell tea and coffee, as well as manufactured goods; and the taxes on these imported goods became the main source of revenue for the Mexican government in Alta California. Likewise, products produced in Alta California were exported, which bolstered the hide and tallow trade, which became the primary business activity in Alta California during this time. The Mexican colonial authorities also permitted and encouraged foreigners to relocate and settle in Alta California and as a result the population of Euro-Americans increased. As the population grew, and the hide and tallow trade became a main source of revenue, ranchos were established that included large tracks of land given to politically prominent Mexican citizens and military leaders.

In 1835, Mexican Governor José Castro granted four square leagues of the original *Rancho de las Pulgas* to José Darío Argüello's family that included Maria Soledad Ortega de Argüello and Don Luis Antonio, who was the son of José Darío Argüello (Bancroft 1886).

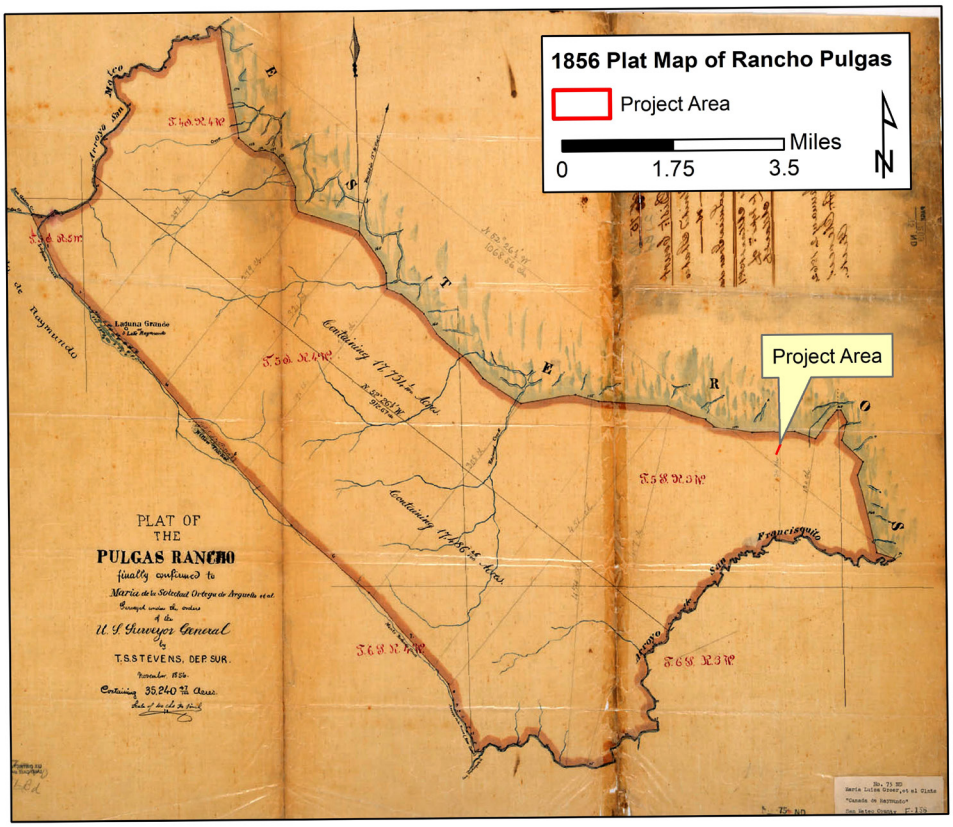

Figure 10: 1856 Map of Rancho de las Pulgas showing Project Area location in red.

3.4.3 American Period (Post 1848)

The beginning of the American Period in California is marked by the end of the Mexican-American War in 1848 when the U.S. signed the Treaty of Guadalupe Hidalgo and took possession of the territories that included California, Arizona, Colorado, Nevada, Utah, Wyoming, and New Mexico. The Treaty of Guadalupe Hidalgo provided the resident Mexicans their American citizenship and guaranteed title to land granted to them in the Mexican period. However, within weeks of the treaty signing, a massive influx of settlers began to arrive in California due to the discovery of gold in 1848. Once the initial rush (1848 – 1850) was over, there was a high demand for agricultural land, as people realized that money could more easily be made from raising and selling food to satisfy the needs of a rapidly growing population. The ideal growing conditions in California made it a very attractive place to settle and the potential for wealth drew numerous settlers to the state from all over the U.S., as well as Scotland, Ireland, England, Germany, and France. The massive influx of new settlers soon gave rise to land disputes as they began to move onto vacant rancho land that they perceived to be available for settlement. To resolve these disputes, the U.S. Congress passed the California Land Act of 1851 that established a three-member Public Land Commission to determine the validity of prior Spanish and Mexican land grants. It required landowners who claimed title under the Mexican government to file their claim with the Commission within two years. Although the Commission eventually confirmed most of the original Mexican land grants, the cost of litigation to defend their land titles forced many Californios[6] to sell their land and cattle, and more often than not their land was lost to newly arriving American settlers and the lawyers who were hired to defend land title claims (Olmsted 1986).

As required by the Land Act of 1851, a claim for *Rancho de las Pulgas* for twelve square leagues was filed in 1852 with the Public Land Commission by heirs of Luis Antonio Argüello. The Land Commission rejected the claim for twelve square leagues, but confirmed the claim for four square leagues. A claim filed by Gervasio Argüello with the Land Commission in 1852 was rejected; and a claim filed by Mowry W. Smith with the Land Commission in 1853 was rejected as well. In 1857, following the 1856 official survey, the grant was patented to Maria Soledad Ortega de Argüello (one undivided half), Jose Ramon Argüello (one undivided fourth), Luis Antonio Argüello (one undivided tenth), and S. M. Mezes (three undivided twentieths). Simon Monserrat Mezes was the Argüello family's lawyer who handled the land patent process (Bancroft 1886).

3.4.4 History of Menlo Park

During the beginning of the Early American Period (1848-1880), the California Gold Rush was in full swing and settlers that made their way to California began squatting on the vast and mostly unoccupied ranchos lands. Many of the new settlers occupied and improved these lands and then petitioned the courts for legal ownership. In some cases, these legal challenges proved exceedingly difficult and costly for the owners of the land grants, and as a result many Californios lost their land to newly arriving

[6] Spanish-speaking residents of Alta California during the Spanish and Mexican era (1769-1848).

settlers. By the time gold fever had slowed, the Argüello land had become an attractive place for settlers who were drawn to the area by the prospering logging industry.

In 1851, two settlers by the names of Dennis J. Oliver and Daniel McGlynn purchased 1,700 acres (conflicting documentation by the Menlo Park Historical Association states that the purchase may have been only 640 acres) of *Rancho de las Pulgas* land from the Argüello family. The land was situated along an area that bordered near the El Camino Real and within present-day Menlo Park. Oliver and McGlynn each built a house on the land and constructed an arched gate along the main entrance of their cattle ranch (https://sites.google.com/site/mphistorical/). At the top of the gate was written the words, *Menlo Park*, which was the name given to the land in honor of the men's hometown of Menlough, County Galway, Ireland.

By the early 1860s, there was talk about a peninsula railroad line that would run from San Francisco to San Jose, making a stop along the way just north of the San Francisquito Creek near the Menlo Park arch. In 1863, the Southern Pacific Railroad (SPRR) was built and the new railroad station was given the name "Menlo Park" (City of Menlo Park 2013). The SPRR station was constructed across and along present day Merrill Street. Menlo Park was soon a favorite stop for weekend city dwellers and folks that were seeking a mild climate. As a result, many residents from San Francisco built grand estates for their summer residences (https://sites.google.com/site/mphistorical/). During this same period the planned area of Menlo Park began in a development along Oak Grove Avenue between the railroad station and El Camino Real. By 1870, only twelve buildings were located in what was known as downtown Menlo Park near the railroad station, El Camino Real, and Oak Grove Avenue, which included two general stores, three hotels, livery stables, saloons, and three blacksmith shops. The first store in Menlo Park was on the corner of Oak Grove Avenue and El Camino Real. The first hotel in town was known as the Menlo Park Hotel, located on Oak Grove Avenue near the railroad tracks. The *Menlo Park* sign was reconstructed at least twice, once in 1886 after the first one blew down, then again in 1905; the sign was finally destroyed in 1922 during an automobile accident. By the early 1900s, the population in Menlo Park remained low and was estimated to be only 400 citizens.

In 1905, electric lights arrived in Menlo Park, and in 1916 a new San Mateo County library opened in the new Central Public School. However, Menlo Park's population had changed very little since the turn of the century, and the area was still considered a farming town with less than 2,300 people during this time. That all changed in 1917 when the U.S. entered World War I (WWI) and the U.S. Military chose Menlo Park as a location to train solders. The 1,000-acre Johnson Dairy farm was the location picked to set-up the training camp, called Camp Fremont; however, the government eventually leased 25,000 acres of land, 1,300 acres of which were used for tent billets and nearly 1,000 buildings for mess halls, storage, headquarters, and recreational facilities. Approximately 40,000 soldiers trained at the camp. The camp was generally bounded by El Camino Real, Valpariso, Santa Cruz Avenue, and San Francisquito Creek (Menlo Park Historical Association 2019). The arrival of the military brought sudden changes and growth to Menlo Park.

In 1917, the El Camino Real was paved for the first time, construction was also completed on Menlo Park's first gas and water services, and there was a significant increase in businesses to facilitate the

thousands of soldiers that trained at Camp Fremont during WWI. After the armistice in 1918, Camp Fremont was dismantled and most of all the materials, including steel from buildings, was sold off as scrap metal (https://www.youtube.com/watch?v=15M3_BbWJ6s).

In 1927, Menlo Park was incorporated within a 1.2 square mile radius and with a population of 2,200 (www.ancestory.com). By 1940 the population was growing steady, but again slowed when it had reached approximately 3,200 citizens. After the end of WWII, like in many areas, rapid growth occurred in Menlo Park and the population rose to 8,000, and the City's boundaries doubled to 2.1 square miles. Today Menlo Park covers an area that is 9.8 square miles and includes 7.6 square mile of water that is considered part of Menlo Park. As of 2015, the population of Menlo Park was 33,449 (www.ancestory.com).

4.0 RECORDS SEARCH AND REVIEW

A record search was conducted that included a review of information available at the Northwest Information Center (NWIC) of the California Historical Resources Information Systems (CHRIS), and a review of historic maps and geoarchaeological, soils and geologic data for the Project Area. The purpose of the NWIC record search was to determine if the Project Area has been previously evaluated for cultural resources, and to review previous cultural resource studies conducted within 0.25-miles of the Project Area as well as records pertaining to archaeological resources located within one mile of the Project Area. Historic maps, soils reports, geoarchaeological studies, and geologic maps were reviewed to assess the potential for archaeological resources to be present below the existing buildings and pavement. The results of the record search and review are presented below.

4.1 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

EDS Principal Archaeologist, Sally Evans, M.A, RPA completed a record search at the NWIC on July 17, 2019 (NWIC File No. 19-0107). According to information on file at the NWIC, the Project Area has not been previously surveyed for cultural resources; however, there have been eight (8) cultural resource studies previously completed within 0.25-miles of the Project Area that include those listed in Table 2 below.

Table 2: Previous Cultural Resource Studies Completed within 0.25-Miles of the Project Area.

NWIC	Year	Title	Authors
3021	1976	An archaeological reconnaissance of the 100.6 acre Raychem Corporation properties in Menlo Park, California (letter report)	Dietz, Stephen A.
4866	1978	The Subsurface, Secondary Testing of the Hiller Site, SMA-160.	Cartier, Robert
7346	1985	Archaeological Survey Report landscaping project along Routes 84 and 101 in San Mateo and Alameda Counties, 04-SM/Ala-101, 84, 04253-033231 (Caltrans).	Offermann, Janis K.

NWIC	Year	Title	Authors
19711	1996	The Hiller Site: CA-SMA-160, Archaeological Burial Recovery Program Willow Park VIII in the City of Menlo Park.	Cartier, Robert
20692	1997	Archaeological Field Inspection of the Proposed Willow Avenue at Hamilton Retail Center, Menlo Park, San Mateo County, California.	Miley Paul Holman
36481	2009	Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California.	Adrian Whitaker, Phil Kiajankoski, and Jack Meyer
37241a		Historic Property Survey Report (HPSR) for the Proposed Metalbeam Guardrail Upgrade Project at Various Locations across San Mateo County, California.	Benjamin J. Harris
37241b	2010	Archaeological Survey Report (ASR) for the Proposed Metalbeam Guardrail Upgrade Project at Various Locations across San Mateo County, California.	Benjamin J. Harris
37241c	2010	Environmentally Sensitive Area (ESA) and Archaeological Monitoring Area (AMA) Action Plan for Two Location Along State Route 1, San Mateo County, California.	Benjamin J. Harris
37241d	2010	Extended Phase I Testing at CA-SMA-97 for the Proposed Metalbeam Guardrail I-5 Upgrade Project, San Mateo County, California.	Benjamin J. Harris
38063	2009	Smart Corridors Geoarchaeological Sensitivity Research.	Neal Kaptain

4.1.1 Known Archaeological Resources in the Vicinity

The records search conducted at the NWIC revealed the presence of ten cultural resources within one mile of the Project Area, including nine prehistoric archaeological sites, one of which also has a historic-period component, and one historic district. These resources are listed in Table 3 below and shown on the map in Figure 11.

Table 3: Archaeological Sites in the Vicinity of the Project Area.

Primary	Trinomial	Description	Distance from Project Area
P-41-000080	CA-SMA-77	Prehistoric Archaeological Site (University Village): habitation site with human burials and artifacts such as charmstones, mortars, pestles, sinkers, chert points, etc. Site found within a buried context.	0.9 miles east
P-41-000160	CA-SMA-160	Prehistoric Archaeological Site (Hiller Mound): habitation site with human burials and artifacts such as red Franciscan chert, ground stone, fire-cracked rock, pestles, shellfish fragments, etc.	600 feet northeast
P-41-000233	CA-SMA-235	Prehistoric Archaeological Site: site with artifacts such	0.5 miles

Primary	Trinomial	Description	Distance from Project Area
		as an obsidian projectile point, bowl mortar fragment, burnt clay, burned and unburnt bone, chert flakes, and shellfish, including oyster (*Ostera luridia*), California horn snail (*Cerithidea californica*), mussel (*Mytilus edulis*), and clam (*Protothaca staminea*).	east
P-41-000244	CA-SMA-248	Prehistoric Archaeological Site (Tarlton Site): habitation site with dark friable midden soil containing artifacts such as FCR, projectile points, chert flakes, and shellfish, including California horn snail (*Cerithidea californica*) and oyster (*Ostera luridia*).	0.47 miles east/northeast
P-41-000258	CA-SMA-262	Prehistoric Archaeological Site (Glen Way): site containing at least one human burial found within an ashy grey midden soil. Artifacts found in association with the burial include two abalone (*Haliotis rufescens)* shell pendants, fragment of unworked abalone shell, one Olivella shell bead, baked clay with basketry impression, and a fragment of fire-cracked ground stone.	0.78 miles southeast
P-41-00263	CA-SMA-267	Prehistoric Archaeological Site: site containing at least one human burial. Artifacts found in association with the burial include one Franciscan cert flake tool.	0.61 miles southeast
P-41-002076	CA-SMA-386/H	Archaeological Site that has both a historic and prehistoric component. Historic component includes two historic refuse dumps likely associated with the Carnduff farmstead, and the prehistoric component includes a habitation site marked by a moderate scatter of debitage, bifaces, ground stone, and shell (mostly *Cerithidea*, but also some *Mytilus*, and *Macoma* noted). Possible middle prehistoric period occupation.	0.56 miles northeast
P-41-002143	CA-SMA-375	Prehistoric Archaeological Site (Bay Road Courtyard Site): site containing at least one human burial and marked by sparse scatter of shell (*Cerithidea*) and one pestle.	0.9 miles east/southeast
P-41-002292	-	Prehistoric Archaeological Site (Willow Road Shell Scatter): site consist of a scatter of shell fragments and one bone fragment.	0.24 miles south
P-41-002351	-	Historic District (Ravenswood Salt Works District): seven remnant salt ponds associated with the Ravenswood Salt Works with a period of significance from 1910s to 1953.	0.22 miles north

Figure 11: Archaeological Sites in the Vicinity of the Project Area.

4.2 ARCHAEOLOGICAL SENSITIVITY

A review of historic maps, aerial photographs, as well as geoarchaeological, soils and geologic data for the Project Area was conducted to better understand the potential for the Project Area to contain archaeological resources.

4.2.1 Prehistoric Archaeological Site Sensitivity

According to the record search information presented above, there are at least nine prehistoric archaeological sites that have been identified within one mile of the Project Area, five of which are known to contain human burials; and these sites have been found in an environmental setting that is similar to the Project Area, namely due to being in close proximity to the historical margins of the San Francisco Bay and its marshlands.

While most archaeological sites located within one mile of the Project Area display surficial evidence of prehistoric occupation, at least one site (CA-SMA-77) was found within a buried context. Therefore, information about the geology and soils associated with the Project Area was reviewed to identify the potential for buried prehistoric archaeological resources to be present. Determining the geologic age is important because Holocene-age landforms commonly contain Holocene-age buried soils (i.e., former land surfaces, also known as paleosols) that have the potential to contain buried prehistoric archaeological resources; and certain landforms such as alluvial fans, floodplains, and areas along rivers and streams, are more likely to contain buried prehistoric archaeological sites than other types of landforms (Meyer and Rosenthal 2007).

According to the geologic map of the Palo Alto 30' x 60' Quadrangle (Brabb et al 2000), the Project Area is located on Holocene-age (post 11,700 years before the present) basin deposit (Unit: Qhb) consisting of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to bay mud (Brabb et al. 2000). The soil within the Project Area includes urban land-Orthents, reclaimed complex, 0 to 2 percent slopes, which appears to be artificial fill soil (USDA 2019). According a geoarchaeological overview of the nine Bay Area counties (Meyer and Rosenthal 2007), large areas of artificial cut/fill soils are mapped in San Mateo County along the margins of San Francisco Bay. The cut or fill areas were formed during the historic or modern period (i.e., <150 years) as a result of urban development; thus, archaeological sites of almost any age may have been destroyed through artificial cutting, redeposited by artificial filling, or completely buried by artificial fill deposits (Meyer and Rosenthal 2007).

Due to the Project Area's environmental setting, the presence of several prehistoric archaeological sites in the vicinity of the Project Area, and the potential for the Project Area to contain buried prehistoric archaeological resources, the Project Area appears to have a high prehistoric archaeological site sensitivity.

4.2.2 Historic Archaeological Site Sensitivity

The following historic maps and aerial photographs were reviewed to determine the potential for historic-era archaeological resources to be located within the Project Area.

- 1856 Plat Map of Rancho Pulgas
- 1894 Official Map of San Mateo County, California
- 1899 Palo Alto, Calif. [Quadrangle] Topographic map, 15-minute series.
- 1943 United States War Department, Corps of Engineers Palo Alto, Calif. [Quadrangle]. Topographic map, 15-minute series.
- 1948 United States Department of the Army, Corps of Engineers Palo Alto, Calif. [Quadrangle] Topographic map, 15-minute series
- 1961 Palo Alto, Calif. Quadrangle map, 7.5-minute series.
- Aerial photograph from 1930, 1941, 1956, 1965

Two of the earliest maps of the area, including the 1894 and 1899 maps (Figure 12 and Figure 13) do not indicate any development within the Property in the late nineteenth century. The first historic land use activity within the Project Area appears on the 1930 aerial, which shows what appear might be hay bales and three unknown type structures within the Project Area (Figure 14); however, agricultural use of the Project Area of the Project Area is not indicated on the 1941 aerial, nor are any buildings or structures shown as having been present in 1941 (Figure 15). Furthermore, no buildings or structures are depicted within the Project Area on the 1943 or 1948 USGS 15' Palo Alto topographic maps. However, according to an aerial from 1955, six of the 17 buildings that make up the current 82-unit development within the Project Area were present (Figure 16), which appears to have been completed by 1965 (Figure 17).

The review of historic maps and aerials indicates that the existing residential development, which appears to have been constructed in the mid-to-late 1950s, was the first development to occur within the Project Area. Prior to the 1950s, the Project Area appears to have been used for agricultural purposes. Due to the lack of development within the Project Area prior to the 1950s, the Project Area appears to have a low historic archaeological site sensitivity.

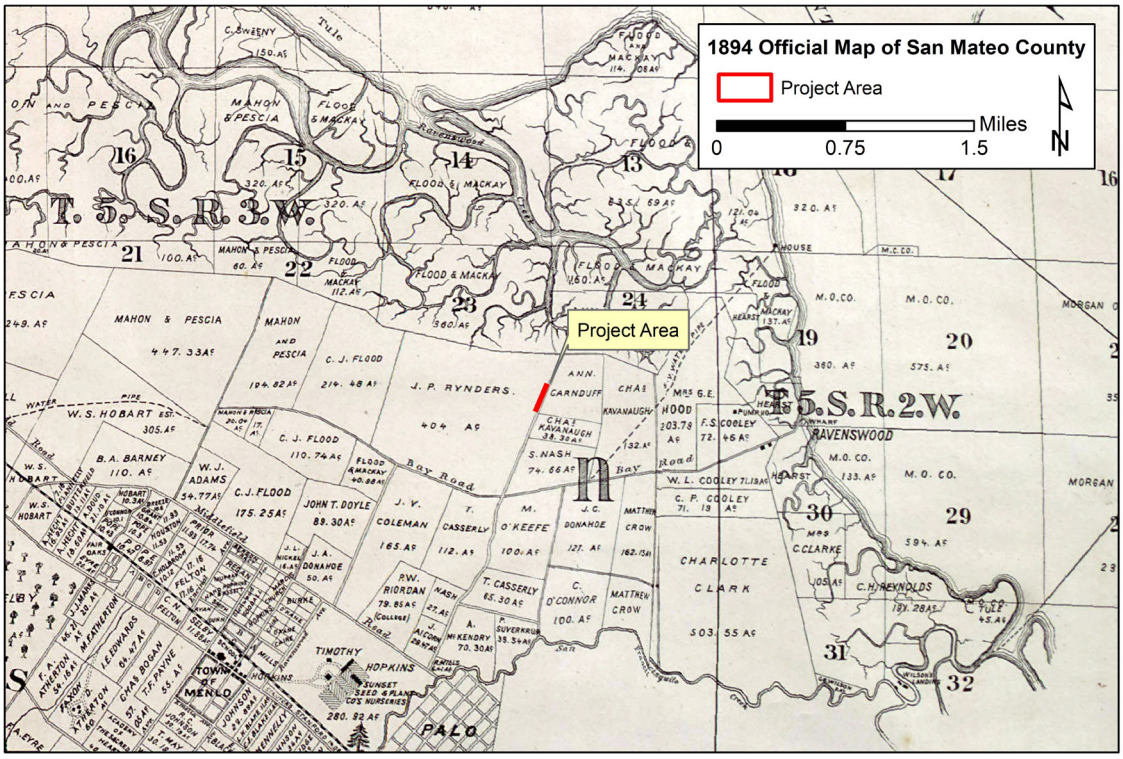

Figure 12: 1894 Official Map of San Mateo County showing the Project Area in red.

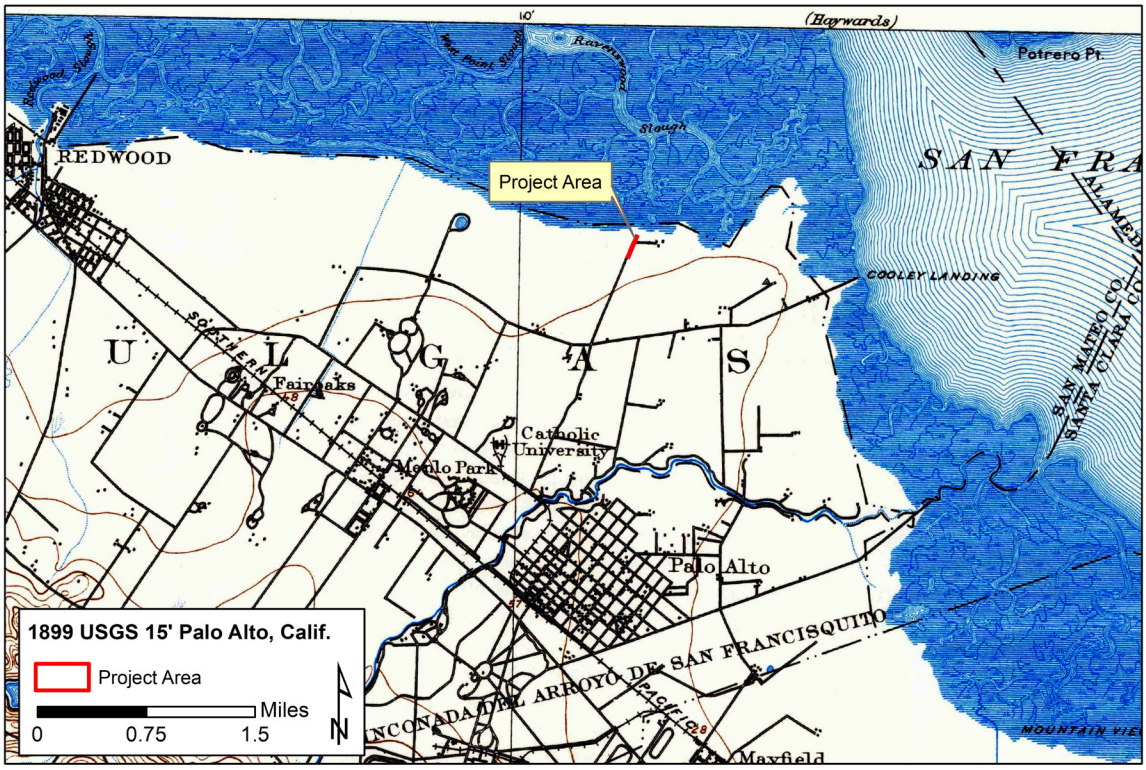

Figure 13: 1899 USGS 15-minute Palo Alto topographic map showing Project Area in red.

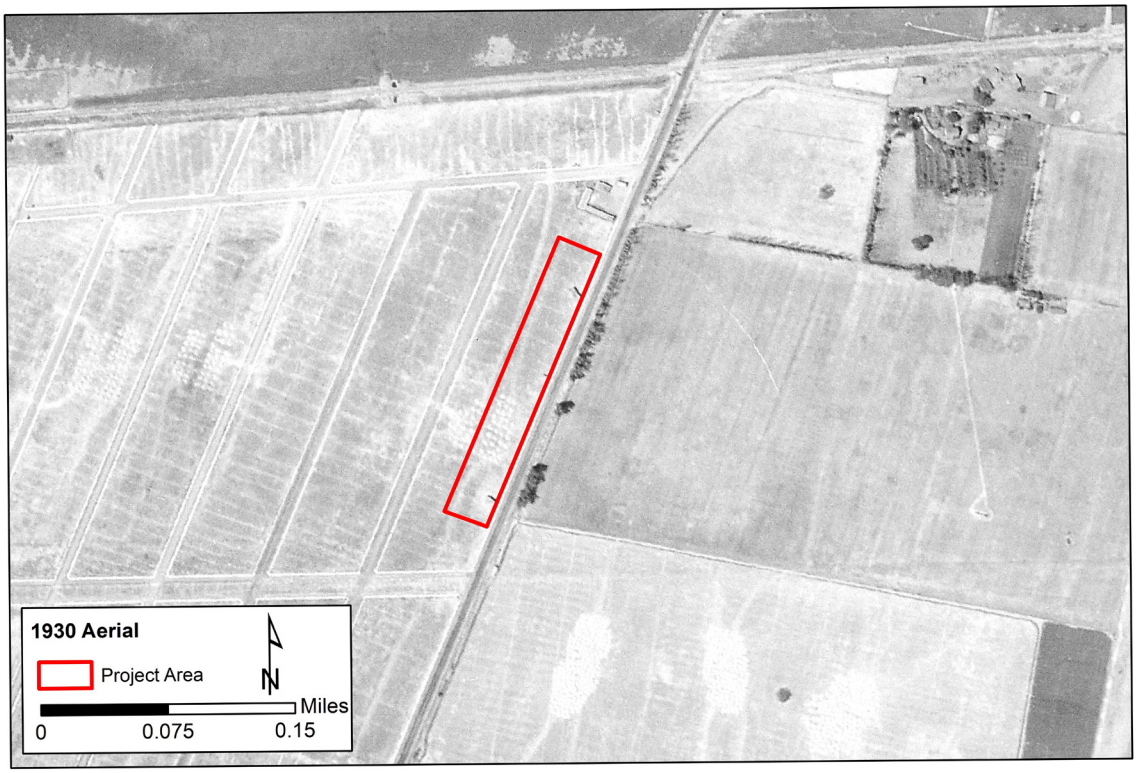

Figure 14: June 1930 aerial (UC Santa Barbara, Catalog # C-1025).

Figure 15: April 1941 aerial showing Project Area in red (UC Santa Barbara, Catalog #C-7065).

Figure 16: December 1955 aerial showing Project Area in red (UC Santa Barbara, Catalog #CIV-1956).

Figure 17: April 1965 aerial showing Project Area in red (UC Santa Barbara, Catalog #CAS-65-130).

5.0 RESEARCH DESIGN

This research design follows the Secretary of Interior's Guidelines for Archaeological Documentation. Its purpose is to describe research themes and address the types of anticipated artifacts, probable depth of cultural deposits, previous disturbances, and NRHP-eligibility. This research design has been prepared in the event that potentially significant archaeological resources are discovered during excavation associated with the Project Area.

Scientific or scholarly research values are judged within the context of a research design that provides the framework for examining variability and change in the archaeological record. A research design outlines the topics or questions that could be asked, given the kinds of data that a particular property type is likely to contain, and evaluates whether that information can be gained from other sources.

Based on the archaeological sensitivity of the Project Area, it is possible that prehistoric resources might be encountered. When resources are discovered during earth-disturbing activities or construction, and if they cannot be avoided, EDS will develop a more comprehensive research design, appropriate to the discovered resource. To preclude the need for additional time spent in review once construction begins, a preliminary Research Design is included below that also includes a research design for historic period archaeological resources even though the potential for historic-period archaeological resources to be present within the Project Area is low. Discussion of potential research values that might be important if associated deposits are identified are reflected as broad, modest themes based on archaeological data for the Project Area and its surroundings.

5.1 RESEARCH ORIENTATION

A fundamental premise of archaeological research is that behavior and social practices of individuals and communities are in some way represented in the material record of past human activities. The study of the patterning in the material record allows us to construct interpretations of how people lived in the past and adapted to their changing environments. The material record comprises artifacts, features, and ecofacts. By definition, an artifact is a movable object transformed by a human being, such as a projectile point; a feature is a non-portable remnant of human activity, such as a hearth, road, or house. Lastly, an ecofact is any floral or faunal material, that has not been altered by people, but that nonetheless has cultural relevance. An archaeological site is any concentration of artifacts, ecofacts, and features manufactured or modified by humans.

In conducting Cultural Resource Management (CRM)-based research, it is important to understand that small archaeological assemblages may not be able to provide substantive information by themselves, but when aggregated together with the date derived from other assemblages, they may reveal interesting and important patterns about the past. Furthermore, archaeological sites almost always have integrity when previous disturbance has not occurred; however, previous disturbance does not preclude an archaeological resource from meeting eligibility requirements.

5.2 RESEARCH DESIGN

This section describes the types of archaeological resources that may be encountered within the Project Area and the types of research questions that can be addressed if such resources are identified.

5.2.1 Cultural Resource Property Types

Cultural resources relate to remains and sites associated with human activities and include prehistoric and ethnohistoric Native American sites, historic cultural resource sites, historic buildings, and elements or areas of the natural landscape that have traditional cultural significance. Significant prehistoric cultural resources are defined as human burials, features or other groupings of materials modified or used by Native American peoples in the past. Indicators of prior cultural occupation by Native Americans include artifacts and burials of human remains, soil discoloration, faunal bone, shell, modified cobbles, ashy areas, and baked or vitrified clays. Materials may include human bone, artifacts of chipped stone such as projectile points, groundstone artifacts, such as mortars and pestles, and bone and shell artifacts. Various features and samples may be encountered including hearths of fire-affected rock, baked and vitrified clay, unmodified faunal and shellfish remains; these characteristics may permit dietary reconstruction, and other evidence, such as differences in compaction in house floors.

Historic cultural materials in the region may have occurred anytime in the last two hundred years, between the late eighteenth through the twentieth centuries. These materials may include structural remains, such as portions of walls and foundations, or glass bottles, metal cans or other manufactured artifacts found in refuse deposits, privies, and wells.

5.2.2 Site Formation Process

It is essential to understand the processes by which cultural and natural strata are formed in order to interpret cultural resource data and to evaluate their importance. The formation of layers and the creation of new feature interfaces create archaeological strata that represent the sequence of events that have occurred at a particular site. Cultural resource deposits reflect periods of continuous use, as well as intervals of transition in site occupation and use. Continuous use of a site creates a gradually accumulated layer of deposition, such as sheet refuse or an ash layer, over a period of months, years, or thousands of years. Deposits of these types allow archaeologists to examine research issues including those that relate to change over time (i.e. diachronic changes). In contrast, other cultural resource deposits are created during events of transition. Catastrophic occurrences, such as floods or fires, and human activity, such as digging a hole or filling a pit, mark intervals of transition. Knowing this allows for the assessment of the integrity of a site. If a site has lost its integrity and its contents have been mixed or disturbed, then the site has limited interpretive value because archaeological interpretations are based on the associations between a site's constituents and its depositional context.

5.2.3 Context of Evaluation

This research design is based on a contextual approach, which emphasizes the specific historical, social, and cultural behaviors contributing to the creation of cultural resource sites. Through this approach, an

archaeologist can examine cultural processes on a small scale, at the level of the mundane and day-to-day activities and experiences that together form a society's broader patterns of development. Use of a contextual approach requires the development of an historic context within which to place the activities that have led to the creation of a cultural resources site. A historic context for a cultural resource deposit might include information about specific characteristics of an individual or group, such as ethnicity and profession, as well as information about the political, social, and economic climate of the larger society, and it may address technological trends relating to site formation processes and site components.

5.2.4 Objectives

The objectives of archaeological investigations for this Project may include determining site boundaries, function, data potential and evaluating the historical significance of archaeological resources, if present. Research topics for prehistoric archaeological resources may revolve around the following themes: refining cultural chronology, site formation processes, and the prehistoric adaptations evidenced at the site. Cultural resource research topics for historic archaeological resources revolve around settlement and land use, consumer behavior, and social identity and status.

5.2.5 Refining Cultural Chronology

Refinement of the cultural chronology is an important aspect of archaeological investigations to any area. Since there have been relatively few excavations in the vicinity of the Project Area, it is important to collect any available data that may help to clarify how Native American culture may have changed over time, particularly in reaction to political and environmental changes.

5.2.6 Chronological Data

Collecting chronological data is a prerequisite to analyzing changes in settlement systems. Radiocarbon dating – using charcoal, shell or other organic matter from clearly cultural contexts, such as features or occupation surfaces – is the preferred method of dating a prehistoric archaeological site or component. Cross dating of temporally diagnostic artifacts, such as beads or projectile points, and obsidian hydration analysis can also provide chronological data; although the resolution is typically lower than for radiocarbon dating.

5.2.7 Requisite Data

If archaeological resources are discovered that cannot be avoided, specific information should be recovered during mitigation to facilitate the interpretation process. This information may include, but is not limited to evaluating areas of moderate and high artifact densities; determining the vertical limits of the site; the presence of intact, sub-surface, and/or stratified deposits; site structure; and site formation processes. One of the more traditional and standard means of recovering this information is through the archaeological excavation of test units. Specific data requirements are those related to chronology, lithic technology, tool stone procurement, fauna and archaeobotany. Site or component function can usually

be elucidated through analysis of lithic technology, faunal and archaeobotanical remains, as well as cultural features.

Lithic Data

There are various relationships between lithic technology and land-use strategies. In simplified terms, mobile foragers are expected to employ a formal technology in which bifaces are important for their portability and multiple functions; more sedentary people tend to use a relatively expedient technology. Lithic technological data can be generated through functional, morphological, and technological analyses of debitage and tools; these data form the foundation for other analyses such as measurements of assemblage diversity and other intra- and inter-site comparisons. Reliable analyses are dependent upon sufficient sample sizes.

Faunal Data

Faunal data directly reflects subsistence practices. Numbers of identified species represented per assemblage provides a qualitative measure of animal selection, which, when compared with other sites/components, can indicate spatial or temporal changes in resource selection, seasonability, availability and over-harvesting.

Archaeobotanical Data

Cultural botanical remains provide direct evidence of subsistence and seasonality, and can contribute to understanding site function(s). Flotation of soil samples from cultural features and macrobotanical identification of floral specimens are necessary to acquire this information. Vegetal resources played important roles in many areas; as mobility decreased, use of plant remains intensified and cultural landscapes were more fully maintained.

Osteological Data

Osteological analysis of human remains present within the archaeological site can be used to reconstruct the age and sex composition of a population, their mortality rates for different ages, length of life, population size, effects of nutrition and disease on demography, and exploring changes in diet and health. The mortality rate of a population and documenting evidence of inter-personal violence can also help to understand and interpret the overall health and demography of a population.

5.2.8 Data Collection Methods

Shovel Test Probes (STPs), Excavation Units (EUs), and backhoe trenching may be employed to determine site boundaries. Hand excavation would be used to expose features and human remains. All soils would be screened through 1/4-inch or 1/8-inch hardware mesh depending on the nature of the resource. Wet screening is preferable, but dry screening may be employed as dictated by the deposit or as the situation allows. Samples of bone, shell, charcoal and soils would be collected and submitted for radiocarbon dating, using specific radiocarbon collection strategies. Flotation samples would also be bagged separately. All recovered cultural material, including historic artifacts, faunal remains, ecofacts,

and organic materials, would be inventoried, processed, and analyzed. Cultural artifacts collected for laboratory analysis would be bagged and labeled with the complete excavation provenience (site number, the unit number, grid location, level depth), including the excavator's name and date. All artifacts collected and bagged in the field would be washed and re-bagged according to artifact type prior to being sent to the laboratory for cataloging and analysis. Artifacts would be cataloged, classified, weighed, measured, numbered, and photographed following professional standards.

Historic materials will be cataloged separately from prehistoric materials following functional categories generally accepted for late nineteenth century sites. The assemblages will be analyzed with reference to functional and morphological attributes, enabling chronological indicators and descriptions to be made for classes of artifactual and ecofactual materials. The historical archaeological collection will be cataloged and processed using standard historic material type categories: shell, animal bone, botanical remains, ceramics, glass, metal, architectural debris (brick, concrete, wood, etc.) and miscellaneous small personal items.

Time-sensitive artifacts, such as projectile points, shell beads and historic artifacts with "maker's marks" or a dateable manufacturing process, will be classified following appropriate typological schemes, and summarized by unit and depth. This information in conjunction with other data is used to assess depositional integrity and to define temporal components.

5.2.9 Research Questions

Research questions that can be addressed by data from the potential archaeological sites present within the Project Area are outlined below. Prehistoric archaeological research will revolve around the broad themes of chronology, settlement patterns and land use, site function and demographics. Historic archaeological research will revolve around chronology, settlement and land use, and consumer behavior, social identity and status.

Site Formation Processes- Prehistoric and Historic Periods

What site formation processes have been active on the site? Are features and artifacts in a primary context or have they been disturbed and redeposited?

The identification of context and site formation involves systematic observation during excavation in order to recognize regional and locally specific processes and their effects. An analysis of site formation processes helps to establish site integrity of deposits and features and directly affects all cultural and behavioral interpretations. It is also crucial when evaluating if a cultural resource meets the eligibility requirements of the NRHP.

Chronology- Prehistoric and Historic Periods

What is the temporal range of deposits at the site? How does it relate to others in the region and does it support existing regional chronology?

Chronology is best established through radiocarbon and obsidian hydration dating. Stratigraphic analysis and site formation analysis are used to evaluate the integrity of the results from various tests such as radiocarbon and obsidian hydration dating. X-ray florescence (XRF) to identify obsidian sources allows for each hydration result to be calibrated. Testing material found in primary context and in association with intact features is preferable. The identification of temporally diagnostic artifact types and features also help establish temporal association (e.g., shell beads, projectile points, charmstones, makers' marks on ceramics and glass bottles and their manufacturing process).

Settlement Patterns - Prehistoric Period

Do the sites or features represent variation in the group size or length of occupation?

Datasets necessary to address settlement patterns would include artifact analysis to determine possible increases or decreases in abundance of artifacts and radiocarbon dating using charcoal, faunal bone, and/or shell may help to decipher how long a site was occupied.

Exotic Materials and Trade - Prehistoric Period

Does the presence of shell or lithic artifacts indicate either contact with groups outside the area or travel outside the area? What are the sources of the various materials used on site (e.g., Napa Valley, Konocti, Annadel obsidian)? Did preferences for specific sources vary over time and how does it compare with other sites in the region?

Datasets that include analysis of distinctive artifact types, such as projectile points, beads, ornaments or other exotic materials representative of a particular culture may be useful for indicating trade patterns and practices with other groups. XRF analysis of obsidian can demonstrate where the raw material was obtained. The presence of obsidian temporally distinctive projectile points within a site can be analyzed for possible diachronic changes of obsidian sources.

Dietary Reconstruction - Prehistoric Period

What subsistence patterns can be identified from archaeological deposits? What were the primary dietary resources utilized and do changes in dietary remains suggest change in environment or resource exploitation over time?

Preserved floral and faunal remains offer the best opportunity to examine subsistence strategies and how they may have changed over time. Recovering both floral and faunal remains may require flotation of column samples and requires the identification of macrobotanical and faunal remains and statistical analyses for intrasite comparison. Changes in the quantities of tools (e.g. flaked tools vs. ground stone) within an assemblage and tool use (through lithic tool use-wear studies) can also be beneficial methods to elucidate subsistence questions. This requires analyzing and classifying bone and shell tools and artifacts, and carefully excavating features and screening soil through fine-mesh (e.g., to recover such evidence as obsidian microflakes indicative of knapping). Other datasets that may help to reconstruct diachronic environmental changes include protein residue and pollen and phytolith studies, which can indicate changes in plant and animal species at a site over time.

Demography, Health, and Violence - Prehistoric Period

What is the demographic profile of the population? What was the health of the burial population and how did it change over time? What is the nature of inter-personal violence and did it change over time?

Osteological analysis of human remains present within the archaeological site can reconstruct prehistoric life ways, the age and sex composition of a population, their mortality rates for different ages, length of life, population size and effects of nutrition and disease on demography. Field recording of burial position, orientation and associated features and artifacts is important in evaluating life ways. Making standard laboratory observations of age, sex, and pathology reflect demographics and health status of the population. Recording nonmetric traits can help identify biological distance among and within populations, as well as the effects of the surrounding environment. Metric analysis helps to determine stature, sexual dimorphism, and population differences. The identification of pathologies and trauma also assist in evaluating populations' overall health and inter-personal relations.

Settlement and Land Use - Historic Period

How was the land used in the historic period and did land use change over time?

Addressing these questions would require the identification of discreet features, such a domestic refuse pit, and the analysis of associated artifacts to establish function, and/or landscape features such as fences, roads, trails, pastures or orchards. Integrating feature information to determine land use strategy at different times is also important.

Consumer Behavior, Social Identity and Status - Historic Period

Does the historic artifact assemblage reflect the known availability of various consumer goods during a particular time and at a particular place? Do historical resources provide information on consumer practices of any particular social, economic, or ethnic group?

Shifts in homegrown foods to store-bought foods and other consumer products can best be illustrated by types and quantities of data sets that include faunal and other food remains and historic artifacts that provide evidence of subsistence, including food storage vessels such as bottles, canning jars, tin cans, and ceramic crockery. Domestic items, such as cooking and eating utensils, tableware, and personal items are other important indicators of consumer behavior. Analysis of historic artifacts has the potential to provide information about social and economic status (e.g., the presence of fine porcelain versus plain whiteware tableware). Imported manufactured goods may help to identify ethic identities and supply information on the cultural maintenance within a specific group.

6.0 CULTURAL RESOURCES MONITORING PLAN

Due to Project Areas high prehistoric archaeological sensitivity, archaeological monitoring by a Secretary of Interior-qualified archaeologist is recommended during Project-related earth-disturbing activities that have the potential to encounter such resources.

The following sections outlines the monitoring protocols and procedures that will be implemented during archaeological monitoring and lists the key personnel who will act as EDS Project Manager (PM), Principal Investigator (PI) and archaeological monitors. It also outlines the procedures that will be implemented in the event that human remains are encountered during earth-disturbing activities.

6.1 MONITORING PROTOCOLS AND PROCEDURES

To address the possibility that unidentified but potentially significant archaeological resources may be encountered during Project-related earth-disturbing activities monitoring protocols and procedures have been developed. Monitoring is defined as active observation of earth-moving or work that could adversely affect cultural resources with the Project Area.

An archaeological monitor is recommended during Project-related earth-disturbing activities that have the potential to encounter archaeological resources (i.e. non fill soil), whether previously disturbed or not, to ensure that archaeological resources, if present, are identified and treated following the Secretary of Interior Standards. Archaeological monitoring shall continue until the archeological monitor or PI determines that cultural resources are unlikely to be encountered. The archaeological monitoring program followed throughout the construction process may include a range of procedures including full-time monitoring, part-time monitoring or spot checks.

- Full-time monitoring will occur during the entire workday and continued on a daily basis until the excavation within native soil in a given area has reached a depth at which resources are not likely to occur or until the archaeological monitor or PI determines that full-time archaeological monitoring can be scaled back to part-time monitoring, spot checks, or is no longer warranted.
- Part-time monitoring will occur during part of a workday. Part-time monitoring will be conducted when a specific excavation activity occurring within native soil on any given day has the potential to uncover archaeological resources.
- Spot checks consist of a field inspection of the progress of excavation over the course of the project. During spot checks all spoils, open excavations, recently graded areas, and other soil disturbances are inspected. The frequency and duration of spot checks is based on the relative sensitivity of the exposed soils and active work areas as determined by the archaeological monitor or PI.

Earth-moving activities include all construction ground disturbances, including, but not limited to grading, boring, and trenching. Excavation solely within fill soil (e.g., soil that has been brought onto the Project site for the purpose of development) will not be monitored by an archaeologist.

If the archaeological monitor or PI determines that full-time monitoring is no longer required in specific locations, an e-mail detailing the reasons for changing the level of monitoring shall be provided to the Project construction manager and/or the Client[7].

At a minimum, the monitoring archaeologist, PI or PM shall consult daily or weekly with the Project construction manager and/or Client to confirm area(s) to be worked during the following week until ground disturbance is completed, or it is determined that archaeological monitoring is no longer warranted. The Project construction manager and/or Client shall promptly notify the archaeological monitor or PM of any changes to the scheduling of the construction phases.

Archaeological resource monitoring activities are the responsibility of the PI and the archaeologist assigned to monitor ground-disturbing activities. Any interference with monitoring activities, removal of a monitor from duties assigned by the PI, or direction to a monitor to relocate monitoring activities by anyone other than the PI shall be considered noncompliance.

6.2 MONITORING PERSONNEL AND COMMUNICATION PROCEDURES

6.2.1 Monitoring Personnel

A Secretary of Interior-qualified archaeologist shall monitor project ground-disturbing activities. The role of PI and PM will be assigned to Ms. Sally Evans, M.A., who is a Registered Professional Archaeologist (RPA #29300590) and exceeds the minimum qualifications of the Secretary of Interior standards. Ms. Evans will be supported by Mr. Gilbert Browning M.A. RPA (RPA #36826964). Other individuals on the team, who also exceed the minimum qualifications as archaeological monitors may assist with the Project mitigation and monitoring.

The archaeological monitor(s) will have access to a full complement of supplies that include a GPS unit, hand trowel, pin flags, caution tape, shaker screen, shovel, cell phone, digital camera, maps and all other supplies necessary to effectively complete the construction monitoring task. Hard hats, boots, high visibility reflective vests, ear plugs, gloves, and safety glasses will be part of the monitor's attire.

6.2.2 Work Curtailment Procedures

The archaeologist shall monitor on a full-time basis, initial project-related earth-disturbing activities within the project Area that have the potential to disturb native soil, including, but not limited to grading, boring, trenching, and other earth-disturbing activities within the Project Area that penetrate native soil whether previously disturbed or not. If the archaeological monitor or the PI determines that the level of monitoring requires a different level of intensity, which could include the need for additional monitors or reducing to spot-check monitoring only, then a letter or an email describing justification for the change in monitoring procedures shall be drafted by the PI or PM to the Client for approval.

[7] The Client is the Project applicant or owner who is responsible for the development or in charge of overseeing the development.

The archaeological monitor(s) and PI have the authority to halt construction in the area of a discovery to ensure that an archaeological resource is protected from further impacts. If necessary, the instruction to suspend an activity can be given directly to a heavy equipment operator or to a crew member. If the monitor determines that a potentially significant archaeological resource has been encountered, all work within 25 feet of the discovery area shall be redirected and the excavated area and any back dirt will be secured. In cases where the objects or materials are determined to be non-significant, work will be allowed to resume immediately.

If potentially significant archaeological resources are encountered, as soon as the immediate danger to it is abated, the archaeological monitor will report the discovery of the resource directly to the PI and the appropriate contractor to explain the action taken, why it was necessary, and the subsequent actions to be taken. The PI acts as the party responsible for all cultural resource issues and will immediately report any issues to the Project construction manager and/or the Client.

The halting or redirection of construction activities in a discovery area shall remain in effect until the PI and the Client have conferred and determined if avoidance is possible. If avoidance of the potentially significant archaeological resource is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the NRHP (see Section 2.2 for eligibility requirements). If the deposit is found not eligible, mitigation is not necessary. If the deposit is eligible, adverse impacts on the deposit shall be mitigated. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and a technical data recovery report at a curation facility. Upon completion of the assessment, the archaeologist shall prepare a report to document the methods and results of the assessment. The report shall be submitted to the City of Richmond and the NWIC upon completion of the resource assessment.

If data recovery or other mitigation measures is required, additional archaeological monitors shall continue to monitor construction activities, if needed, while mitigation of the resource is performed. All necessary and required data recovery and other mitigation shall be completed as promptly as possible after the discovery of any previously unknown cultural resource unless all parties agree to additional time.

In the event of an archaeological resource discovery, avoidance measures such as flagging or fencing (or in case of human remains steel plating) will be used to prohibit or otherwise restrict access to sensitive areas.

6.2.3 Procedures for the Discovery of Archaeological Resources

In the event that an archaeological resource is uncovered during construction and the archeological monitor is not on site, employees shall halt work on their own in the vicinity of a potential archaeological resource discovery (all excavation and earth moving activities within 25 feet) and

immediately contact their supervisor or foreman and EDS. The relocation or redirection of work will be determined by the Client and/or construction supervisor and the archaeological monitor or PI.

The archaeological monitor will assess whether the discovery is potentially significant and report to the PI. If the discovery is of a potentially significant archaeological resource, then EDS will follow the procedures in the mitigation plan as summarized in this report and will notify the Project construction manager and/or the Client within 24 hours. The Project construction manager and/or the Client will notify the construction personnel to begin work again in the vicinity of the resource only after mitigation has occurred.

If the discovery is determined by the archaeological monitor or PI[8] to be human remains, the monitor or the PI shall contact the Project construction manager and/or Client immediately. The archaeological monitor or the PA shall contact the Contra Costa County Coroner's Office immediately. The coroner may consult with the archaeological monitor or PI who identified the remains as human. The human remains will be secured immediately with steel plating. The San Mateo County Coroner must be contacted upon each occurrence of human remains identified within the Project Area.

- San Mateo County Coroner: (650) 312-5562
  Robert Faucrault, Coroner
  RFoucrault@smcgov.org
  50 Tower Road, San Mateo, CA 94402

California Health and Safety Code 7050.5 establish intentional disturbance, mutilation or removal of interred human remains as a misdemeanor. It requires that further excavation or disturbance of land, upon discovery of human remains outside of a dedicated cemetery, cease until a county coroner makes a report. It requires the county coroner to contact the Native American Heritage Commission (NAHC) within 24 hours if the coroner determines that the remains are not subject to his or her authority and if the coroner or their consultant recognizes the remains to be those of a Native American.

Native American Heritage Commission and Most Likely Descendants (MLD)

Public Resource Code §5097.98 requires the NAHC, upon notification by a county coroner, to notify the most likely descendants (MLD) regarding the discovery of Native American human remains. It enables the MLD, within 48 hours of notification by the NAHC, to inspect the site of the discovery of Native American human remains and to recommend to the landowner or the person responsible for the excavation work means for treating or disposition, with appropriate dignity, the human remains and any associated grave goods. In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition within 48 hours, or the landowner rejects the recommendation of the descendant, PRC §5097.98 requires the owner of the land to reinter the remains and associated grave

[8] The PI for this project is a bioarchaeologist who is trained on the identification and analysis of human remains in archaeological contexts.

artifacts with appropriate dignity on the property in a location not subject to further disturbance. The re-burial location is to be documented and reported to the NAHC and the NWIC.

If a dispute arises between the landowners and the MLD related to the treatment and disposition of Native American human remains and associated grave artifacts, the NAHC will mediate the dispute. If the landowner does not accept the MLD's recommendations for treatment of the remains, the owner or the MLD may request mediation by the NAHC. The NAHC may also assist landowners in developing agreements with MLDs to ensure protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction, and provide for sensitive treatment and disposition of Native American burials, skeletal remains, and associated grave artifacts in a manner consistent with the planned use of, or the approved project on, the land.

Under SB 447 (Chapter 404, Statutes of 1987) it is a felony to obtain or possess Native American remains or associated grave artifacts except as otherwise provided by law or in accordance with an agreement reached pursuant to PRC §5097.94 or § 5097.98. Any person who removes, without authority of law, any Native American artifacts or human remains from a Native American grave with intent to sell or dissect or with malice or wantonness is guilty of a felony which is punishable by state imprisonment.

Consultation with the MLD, PI, and the Client shall determine the appropriate treatment and level of analysis of any human remains discovered within the Project Area.

6.2.4 Native American Participation

Important prehistoric archaeological materials and Native American human remains could be disturbed if prehistoric archaeological deposits are encountered during project construction. Currently, Native American monitoring is not recommended for the Project. However, the presence of a Native American monitor is recommended if prehistoric resources are encountered during earth-disturbing activities.

If human remains are discovered during monitoring or mitigation activities, then the specific guidelines, protocol, and channels of communication outlined by the California NAHC (1991), and in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resource Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and SB447 (Chapter 44, Statutes of 1987) will be followed. Section 7050.5 (c) will guide the MLD and Native American involvement, in the event of discovery of human remains.

6.2.5 Reporting Procedures - Daily Log, Weekly and Monthly Reports

During the monitoring period, a daily log will be completed for each day that monitoring that is conducted. The log will track earth-moving activities, detail archaeological discoveries, and other actions taken including noncompliance issues.

Cultural Materials Considered Less than 50 Years of Age

All of the cultural materials listed below are less than fifty years of age and, unless of exceptional significance, will not be considered potentially significant cultural resources. The following materials will not be reported unless exceptional:

- Plastic products limited to Styrofoam® and other foamed polystyrene products, Velcro®, Teflon® coated cookware, polyvinylchloride (PVC) pipe, high-density polyethylene, polypropylene, polyimide, thermoplastic polyester, linear low-density polyethylene, liquid crystal polymers, and products marked with resin codes.
- Cans made from aluminum or bi-metal, or those with pull-tab or push-tab (metal or plastic) openings.
- Aluminum foil containers.
- Synthetic tires, car parts.
- Modern electronics (CD players, VCRs, electronic appliances, personal electronics, computers, printers, and associated parts).
- Compact disks, floppy computer disks, magnetic tape media.
- Unidentifiable metal fragments.
- Rubber and rubberized metal.
- Clothing or shoes made of plastic or synthetic materials.
- Modern bottles and other similar containers

Any materials that are found with materials older than 50 years will be reported.

6.3 FIELD RECORDATION AND MITIGATION PLAN

6.3.1 Cultural Materials Considered 50 Years of Age or Older and Not Human Remains

In the event that potentially significant archaeological resources are uncovered during construction the following procedures will be followed:

1. Excavation work or any other earth-moving activities within 25 feet, or greater if deemed necessary by the archaeological monitor to protect the archaeological resource, will halt and be redirected.

2. If there is no archaeological monitor on site, the workers will stop work in the area and notify the site/area supervisor or construction manager who will then immediately notify the PI or PM.

3. If the archaeological monitor or bioarchaeologist determines that the discovery includes human remains, those remains will be treated under the protocol for treatment of human remains (see section 6.2.3).

4. The archaeological monitor will notify the PI of the discovery.

5. If the PI determines the discovery qualifies for prescribed treatment, then the procedures in section 6.3.4 will be followed.

6. If the discovery does not qualify for prescribed treatment, procedures outlined in Section 6.3.5 (below) will be followed. Excavations where archaeological material has been discovered will not be back-filled until the archaeological monitor or PI approves the back-filling. If the area needs to be secured, this will be done by plating, fencing, or other temporary measures approved by the archaeological monitor or PI. Steel plates should be made available by the contractor for this purpose.

6.3.2 Expansive Exposure of Discovered Resources is Possible

In some cases, broad excavations are possible within a linear right of way (ROW) (when ROW is through open land). When discoveries are made in areas where investigations can be made over broad areas the following will be completed:

1. The horizontal and vertical boundaries of the deposit will be defined.

2. The stratigraphic relationships and depth of the deposit will be defined.

3. The content of deposit, i.e., the date range and information potential, will be investigated by means of subsurface testing.

4. Sufficient information will be gathered to make a recommendation of eligibility utilizing the research design outlined in Section 5.0 (refining research design if necessary).

5. The site will be recorded on Department of Parks and Recreation (DPR) 523 forms that will include a location map, a scaled drawing, and a photograph of the resource.

6. An eligibility recommendation will be made for the resource on the form.

7. If the find cannot clearly be recommended as eligible or ineligible for the NRHP, the deposit will be assumed eligible.

8. The PI will develop a data recovery program based on the research design that reflects the information potential identified by the subsurface testing. If the PI determines that the find is eligible for the NRHP, then all mitigation required will be completed prior to continuation of construction in the area of the discovery.

6.3.3 Expansive Exposure of Discovered Resources is Not Possible

When discoveries are made in trenches within public roadways or areas where access is restricted, the possibility of completing a thorough evaluation of a discovery may be limited. Safety considerations may constrain excavation or testing of a cultural resource. Access to resources discovered at depth in a trench should not automatically be considered restricted. If there is a question about whether access is restricted, the PI, Project construction manager and Client will consult and determine if the access is restricted.

In cases where exposure of the resource is limited, evaluation of a portion of a site or deposit for the NRHP may not be sufficient to allow an eligibility recommendation of the entire resource. The following information will be gathered:

1. The horizontal and vertical boundaries of the deposit or resource will be defined to the extent possible.

2. The stratigraphic relationships and the depth of the deposit will be identified by using subsurface testing. The content of the deposit, i.e., the date range and information potential, will be investigated. Where access is limited, the content and the date of the deposit (if possible) will be described, and the information potential will be evaluated, utilizing the research design described herein.

3. The site will be recorded on a Department of Parks and Recreation (DPR) 523 form, including a location map, a scaled drawing, and a photograph of the resource.

4. If horizontal excavation is extremely limited, and the find cannot clearly be recommended as eligible or ineligible for the NRHP, the deposit will be assumed eligible. The deposit will be treated by preparing DPR 523 forms to provide a record of the find, including a location map, a scaled drawing, and a photograph of the resource; and by developing a limited data recovery program based on the research design described herein. All mitigation will be approved by the Client and completed prior to continuation of construction in the area of the discovery.

6.3.4 Prescribed Treatment of Cultural Resource Discoveries

Any discovery that contains human remains will not be subject to this protocol.

For some classes of resources, treatment (mitigation) can be agreed upon before starting construction on the Project. Defining the resource classes and treatments prior to starting any ground disturbing activities can limit delays in the construction schedule. When resources over 50 years of age are discovered, prescribed treatment for the classes of resources listed below consists of the following:

1. Construction is halted in the immediate vicinity of the find, and the archaeological monitor records the find on DPR 523 forms, including a location map and a photograph record.

2. The PI or PM notifies the Project construction manager and the Client of the find within 24 hours.

3. Notification includes a description of the resource, a statement that it qualifies for prescribed treatment, and that the treatment has been completed.

4. Construction can resume when the archaeological monitor completes documentation and all concerning parties have been notified.

Classes of Prehistoric Period Archaeological Resources Eligible for Prescribed Treatment

- Small, sparse (less than 3 pieces per square meter) scatters of lithic debitage that lack depth (less than ten centimeters).
- Sparse occurrences of fragments of fire-affected rock (less than 3 pieces per square meter, with no other cultural constituents).
- Sparse occurrences of fragments of baked or vitrified clay (less than 3 pieces per square meter, with no other cultural constituents).
- Small midden remnants (smaller than 1-meter x 1 meter) that lack depth (less than 10 centimeters). If charcoal, bone or other diagnostic elements are found in the midden, or the deposit is exceptional as determined from associated artifacts, the midden and associated diagnostic elements will be treated following Section 6.3.5.
- Small clusters (less than 1-meter x 1 meter in size) of unidentifiable shell (whole or fragmented). If artifacts, rock material not native to the area (manuport) or other materials are found, the shell and associated deposit will be treated following Section 6.3.5.

Classes of Historic Period Archaeological Cultural Resources Eligible for Prescribed Treatment

- Roadside disposal of debris.
- Small, isolated artifact concentrations (fewer than 20 artifacts or the fragments of fewer than three objects) with no potential for subsurface deposit.
- Concrete, brick, or other building materials that lack structural integrity and are part of a documented disturbed (redeposited) context.
- Metal, concrete, or ceramic pipes, conduits, or culverts that lack structural integrity.

Prescribed Treatment for Diagnostic and Exceptional Isolated Finds

Certain isolated finds are subject to special treatment. They include diagnostic prehistoric artifacts, intact, unusual historic-period artifacts greater than 50 years old, and other exceptional artifacts (high quality, unique, or labeled examples, e.g., mortars, pestles, projectile points, ornaments, embossed bottles, decorated or maker-marked ceramic vessels, or dated/inscribed metal objects). Diagnostic artifacts are defined as items that are indicative of a particular time and/or cultural group.

Examples of diagnostic artifacts include:

	Lithics	Groundstone	Beads/Pendants	Other
Prehistoric Artifacts	Points	Mortars	*Olivella* shell	Baked clay figurines
	Scrapers	Pestles	Abalone shell	Ear spools
	Drills	Mano	Stone	Bone tools
	Blanks	Metate	Bone	Pipes
		Net Sinkers	Other types of shell	Charmstones

	Ceramics	Glass	Identifiable metal	Other
Historic Artifacts	Decorated	Cut	Tools	Buttons
	Rim sherds	Pressed	Gun parts	Marbles
	Basal sherds	Decorated	Machine parts	Pipes
	Maker's marks	Vessels bases and lips	Hinges	Figurine, doll parts
	Complete vessels	Labels	Nails	Saw cut/butchered bone
	Insulators	Complete vessels	Buckles	
		Insulators	Flatware	
			Wagon hardware	
			Horse tack, shoes	

Diagnostic artifacts will be treated as follows:

1. Construction is halted within 25 feet while the archaeological monitor records the find on a DPR 523 form, including a location map and a photograph.
2. The isolate is collected and will be curated.
3. The PI or PM notifies the construction supervisor and/or Client of the find within 24 hours. Notice includes a description of the resource and a description of the steps taken to determine that it was truly spatially isolated and not part of a larger deposit that would be treated according to Section 6.3.5.
4. Construction can resume when the archaeological monitor completes documentation.
5. All isolates will be listed and described in the associated final monitoring report.

6.3.5 Potentially Significant Cultural Resources Not Eligible for Prescribed Treatment and That Warrant Further Evaluation

Except for the materials listed in Section 6.3.4, all other cultural resource materials must be treated individually, as significant or potentially significant discoveries. Individual treatment consists of the following steps:

1. The archaeological monitor halts construction within 25 feet of the find and secures the discovery area and associated back-dirt (spoils).
2. As soon as the immediate danger to it is abated, the archaeological monitor will report the find directly to the PI and the appropriate contractor to explain the action taken, why it was necessary, and the subsequent actions to be taken.
3. The PI or PM notifies the Client of the find within 24 hours.
4. The archaeological monitor records the find on a DPR 523 form, including a location map and a photograph record.
5. The PI provides the Client with a recommendation to avoid impacts to the resource.

6. If avoidance is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the NRHP (see Section 2.2 for eligibility requirements). EDS will provide a scope of work and cost estimate for eligibility testing within 48 hours of the decision that avoidance is not feasible, unless more time is required.

7. If the deposit is found not eligible for the NRHP, mitigation is not necessary, and excavation can resume immediately.

8. If the deposit is determined eligible for the NRHP, adverse impacts on the deposit shall be mitigated via a data recovery plan. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan using standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and report at a curation facility. Construction shall continue to be suspended in the discovery area until any further data recovery and mitigation has been completed.

6.4 CURATION

The Client will assume responsibility for any funding requirements related to the accessioning of archaeological materials and the data recovery report at a curation facility. Artifacts will be cataloged using protocols acceptable to the David A. Fredrickson Archaeological Collections Facility at Sonoma State University, which is the curation facility recommended by EDS for any archaeological discoveries that result from this Project.

6.5 TECHNICAL REPORTING

Ninety (90) business days after the completion of all ground disturbance including landscaping and/or data recovery (if required), and data analyses, a final Cultural Resources Monitoring Report (CRMR) will be produced under the direction of the PI. If data recovery and data analysis occur, the report will comply with the Secretary of the Interior's Standards for Archaeological Documentation. A draft report will be provided to the client for one round of comments. The final report will be submitted to the client and the NWIC. The report will include DPR 523 forms for any newly discovered sites within the Project Area.

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State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

May 23, 2019

Refer to HUD_2019_0426_002

Mr. Ken Cole, Director
Department of Housing
County of San Mateo
264 Harbor Boulevard, Building A
Belmont, CA 94002-4017

Re: Gateway Family Housing Redevelopment Project at 1345 Willow Road, Menlo Park, CA

The California State Historic Preservation Officer (SHPO) received the above referenced submittal for our review and comment pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations found at 36 CFR Part 800. The regulations and advisory material are located at www.achp.gov.

Undertaking
You have informed us that the County of San Mateo and the MidPen Housing Corporation (MidPen) intend to use Project-Based Section 8 Vouchers from the U.S. Department of Housing & Urban Development (HUD) to demolish 17 existing buildings containing 82-units of affordable housing and redevelop the 2.96 acre site with a new 140 unit affordable housing property.

Area of Potential Effects (APE)
The County defined the APE for this undertaking as the subject parcel and adjacent parcels. We believe the County has defined a reasonable APE for the undertaking.

Identification of Historic Properties
The County utilized documentation prepared by AEM Consulting for this Section 106 consultation. AEM conducted a survey of the built environment for the APE. Documentation provided in the AEM survey evaluated eighteen single-family residential properties within the APE for listing in the National Register. Based on the report prepared by AEM, the County determined all eighteen buildings ineligible for listing. We concur with the County's determination that following Menlo Park properties are not eligible for listing in the National Register of Historic Places:

- 1320 Carlton Avenue
- 1324 Carlton Avenue
- 1328 Carlton Avenue
- 1332 Carlton Avenue
- 1334 Carlton Avenue
- 1352 Carlton Avenue
- 1356 Carlton Avenue

- 1360 Carlton Avenue
- 1368 Carlton Avenue
- 1372 Carlton Avenue
- 1376 Carlton Avenue
- 1380 Carton Avenue
- 1388 Carlton Avenue
- 1392 Carlton Avenue
- 1394 Carlton Avenue
- 1396 Carlton Avenue

AEM also completed a records search at the North West Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The archeological sensitivity assessment completed by the NWIC establishes that the APE is highly sensitive for both prehistoric and historic era archeological resources. The NWIC recommends additional archeological survey and testing of the area, which may need to occur once demolition has begun. Should these additional identification efforts need to wait for demolition to begin, the County must enter into a project level programmatic agreement with consulting parties, including the CA SHPO, to memorialize when and how additional testing and review will take place. At this time, either the County must continue efforts to identify and evaluate potential subsurface historic properties and continue consultation with our office based on those efforts; or, the County should begin consultation with our office for the development of a programmatic agreement that will memorialize plans for additional phased identification efforts and future assessment of effects. Please inform us of how the County wishes to proceed.

Assessment of Effects
The County has made a finding of no historic properties affected for this undertaking. We object to the County's finding at this time based on incomplete archeological identification and evaluation efforts in the APE, but will reconsider that objection once we have the opportunity to review and comment on the results of the additional archeological study, or a programmatic agreement for the undertaking is developed.

Please be advised that at this time the County of San Mateo's Section 106 consultation obligations for this undertaking are not complete. We look forward to continuing consultation for this undertaking. If you have any questions, please do not hesitate to contact Shannon Lauchner, State Historian II, with the Local Government & Environmental Compliance Unit at (916)445-7013 or by email at shannon.lauchner@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

DEPARTMENT OF HOUSING
COUNTY OF SAN MATEO

Main Office - Department of Housing
264 Harbor Blvd., Building A, Belmont, CA 94002-4017

Housing & Community Development (HCD)
Tel: (650) 802-5050

Housing Authority of the County of San Mateo (HACSM)
Tel: (650) 802-3300

Board of Supervisors:
Dave Pine
Carole Groom
Don Horsley
Warren Slocum
David Canepa
Director: Ken Cole

April 25, 2019

Julianne Polanco
Office of Historic Preservation
Department of Parks & Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Request for Section 106 Review: Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025

Dear Ms. Polanco,

MidPen Housing Corporation (MidPen) proposes to use funding from the U.S. Department of Housing and Urban Development (HUD) as administered by the County of San Mateo to redevelop, at a higher density, an existing affordable housing project known as Gateway Family Housing located on an almost three acre site with address 1345 Willow Road in Menlo Park, California.

Enclosed are materials to identify and evaluate historic properties within the Area of Potential Effects of this undertaking under Section 106 of the Historic Preservation Act and its implementing regulations at 36 CFR Part 800. As the Agency Official for this project, I request your views regarding the effect of the project upon historic properties.

AEM Consulting has been engaged to prepare the federal environmental review under NEPA and 24 CFR Part 58, HUD Environmental Review Regulations, prior to use of federal funds. AEM will be pursuing other related federal consultations necessary for the project on behalf of the County of San Mateo.

Upon reviewing the attached Historic and Cultural Resources Evaluation, I concur with the description of the undertaking and its Area of Potential Effects. I also concur with the determination recommended, which is no effect to historic properties as defined for Section 106, i.e., eligible for the National Register of Historic Places. Please contact me if you have any questions or need additional information. Thank you.

Sincerely,

Ken Cole, Director
Department of Housing
County of San Mateo
650-802-5024
kcole@smchousing.org

Enclosure: Historic and Cultural Resources Evaluation of Gateway Family Housing

HISTORIC & CULTURAL RESOURCES EVALUATION
HISTORIC RESOURCES EVALUATION FOR SECTION 106 REVIEW:
GATEWAY FAMILY HOUSING

1345 Willow Road, Menlo Park, San Mateo County, California 94025

April 2019

AEM Consulting
422 Larkfield Center #104
Santa Rosa, California 95403
(707) 523-3710

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Background

This report will summarize the information necessary for Section 106 Review of the proposed Gateway Family Housing project in Menlo Park, California. The project qualifies as a federal undertaking in that Federal funds currently provide rental subsidies to the project in the form of Project-Based Section 8 Vouchers, a program of U.S. Department of Housing and Urban Development. The County of San Mateo is the Responsible Entity for compliance with the National Environmental Policy Act on behalf of the Housing Authority, including compliance with the Historic Preservation Act. Review is being prepared pursuant to 24 CFR Part 58, of HUD's environmental regulations. The appropriate level of review in this case is an Environmental Assessment.

To achieve a Finding of No Significant Impact or FONSI, HUD requires that the Environmental Assessment demonstrate that the project complies with all applicable federal laws and regulations, including Section 106 of the National Historic Preservation Act. Regulations pertaining to Section 106 Review are found in 36 CFR Part 800.

Regulatory Context for Evaluation of Historical and Architectural Significance

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties. The section 106 process seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency official and other interested parties, beginning at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. To evaluate the significance of an historical resource and its integrity, the ability of a property to convey that significance, a building is evaluated according to the National Register Criteria for Evaluation. According to the guidelines of the National Register Criteria for Evaluation, the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

> A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. That are associated with the lives of persons significant in our past; or
>
> C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> D. That has yielded or may be likely to yield, information important in prehistory or history.

Section 106 compliance requires the County of San Mateo to obtain the views of the State Historic Preservation Officer (SHPO) as to whether any of the project activities could have an "adverse effect" to the setting or character-defining features of any historically significant property in the Area of Potential Effects (APE). A historically significant property is one that would be eligible for listing on the National Register of Historic Places, whether it is currently listed or not.

Project Description/Undertaking

Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025 (APN 055-383-560):

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A part time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room

The current zoning of the property is R-4-S, High Density Residential which is appropriate for the proposal. The project proposes a density of 37.23 dwelling units per acre (du/acre). The existing frontage easement will be abandoned.

The target demographic is low-income families and will be 100% affordable housing.

Source: (1) (See attached plans and drawings)

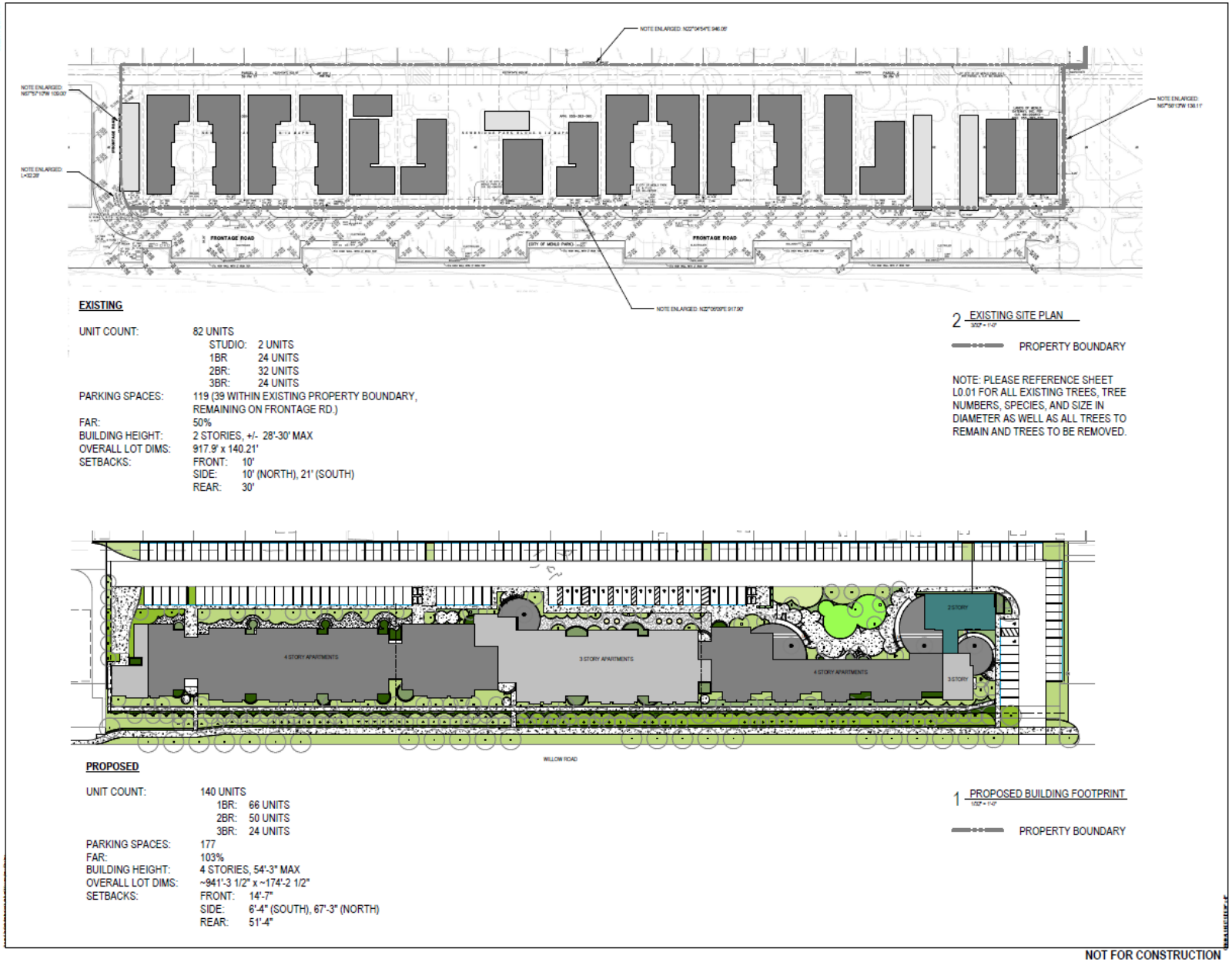


Figure 1 Existing and Proposed Building Footprint

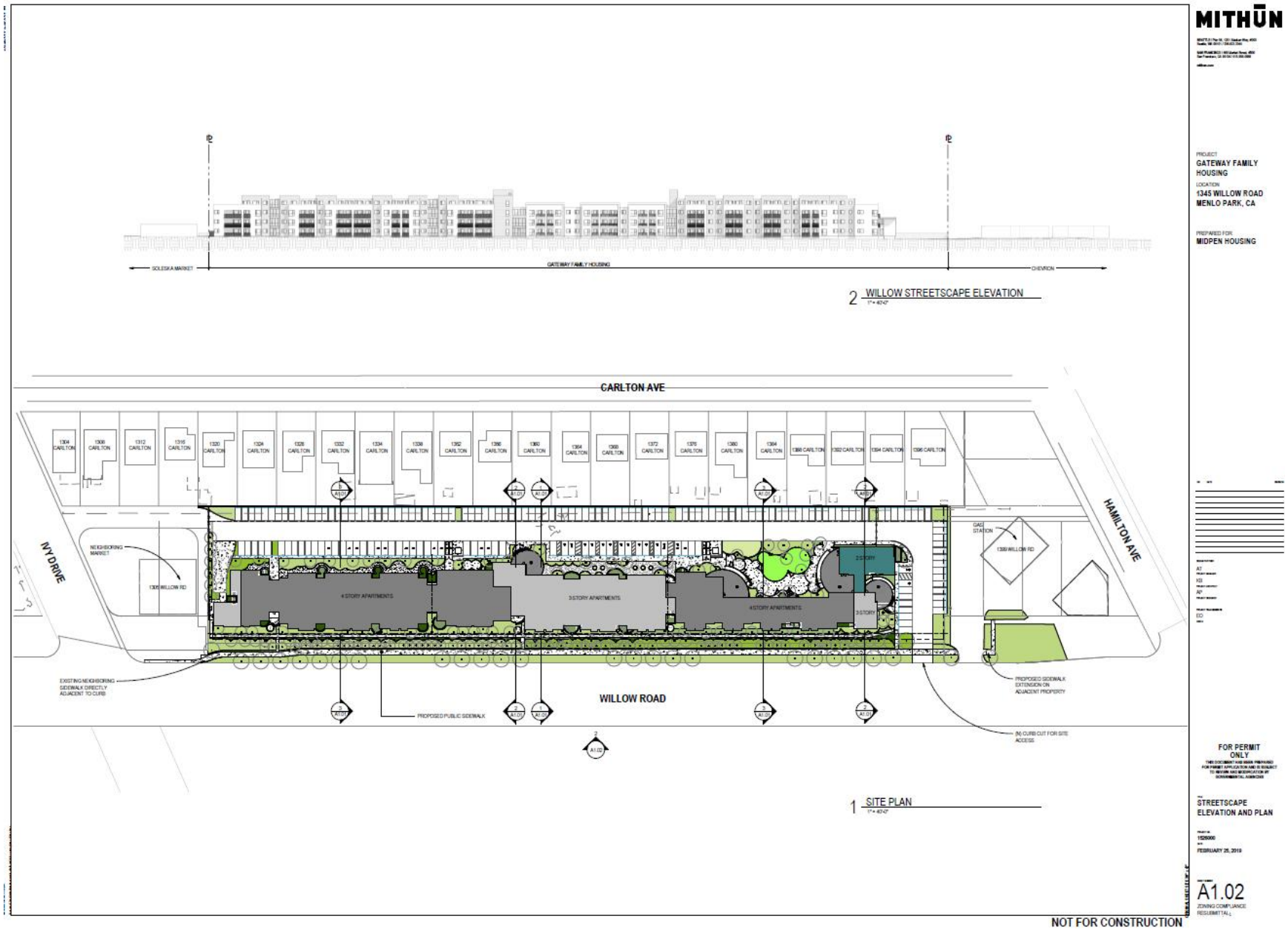


Figure 2 Site Plan

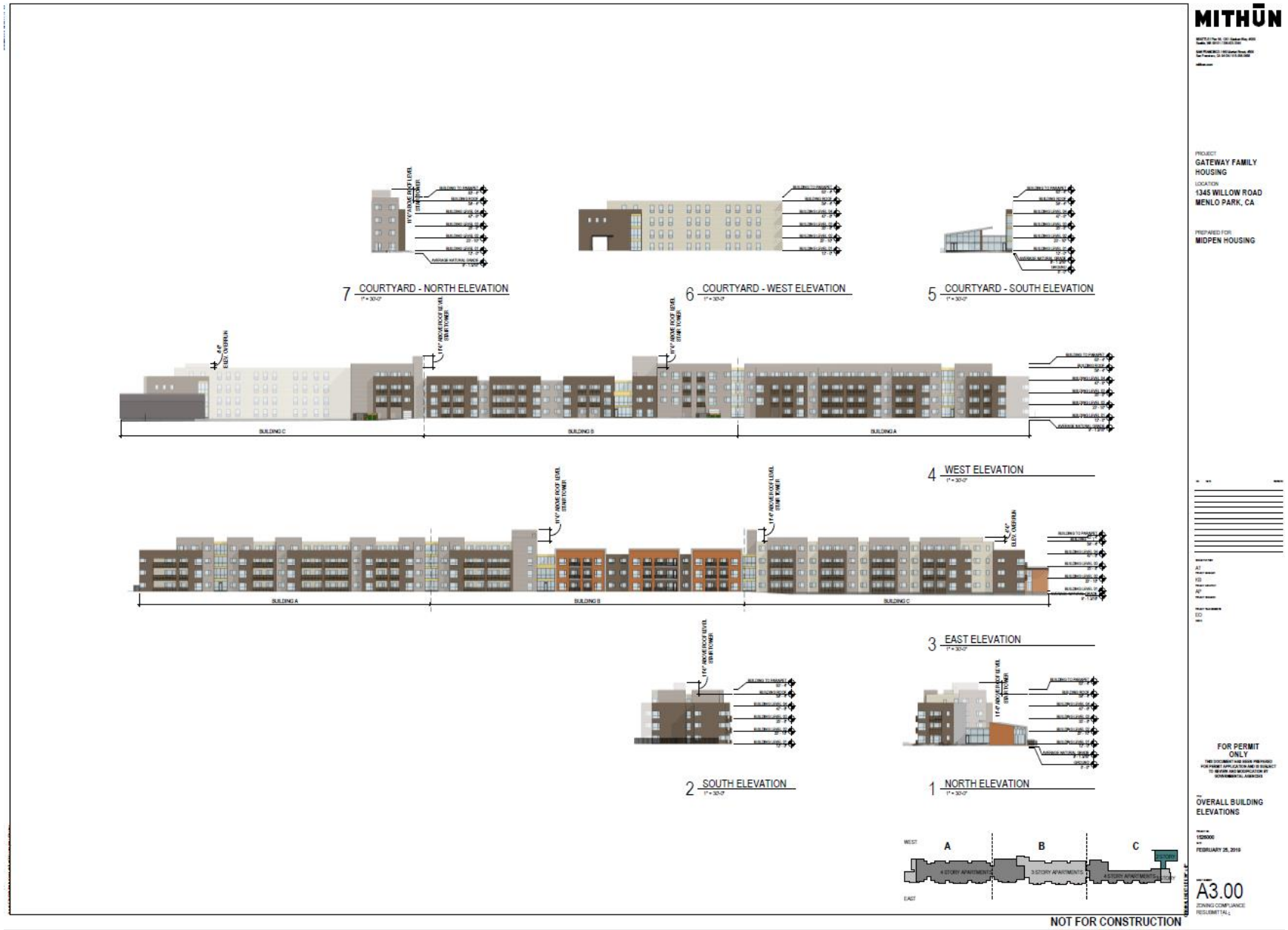


Figure 3 Elevations

Figure 4 Elevations

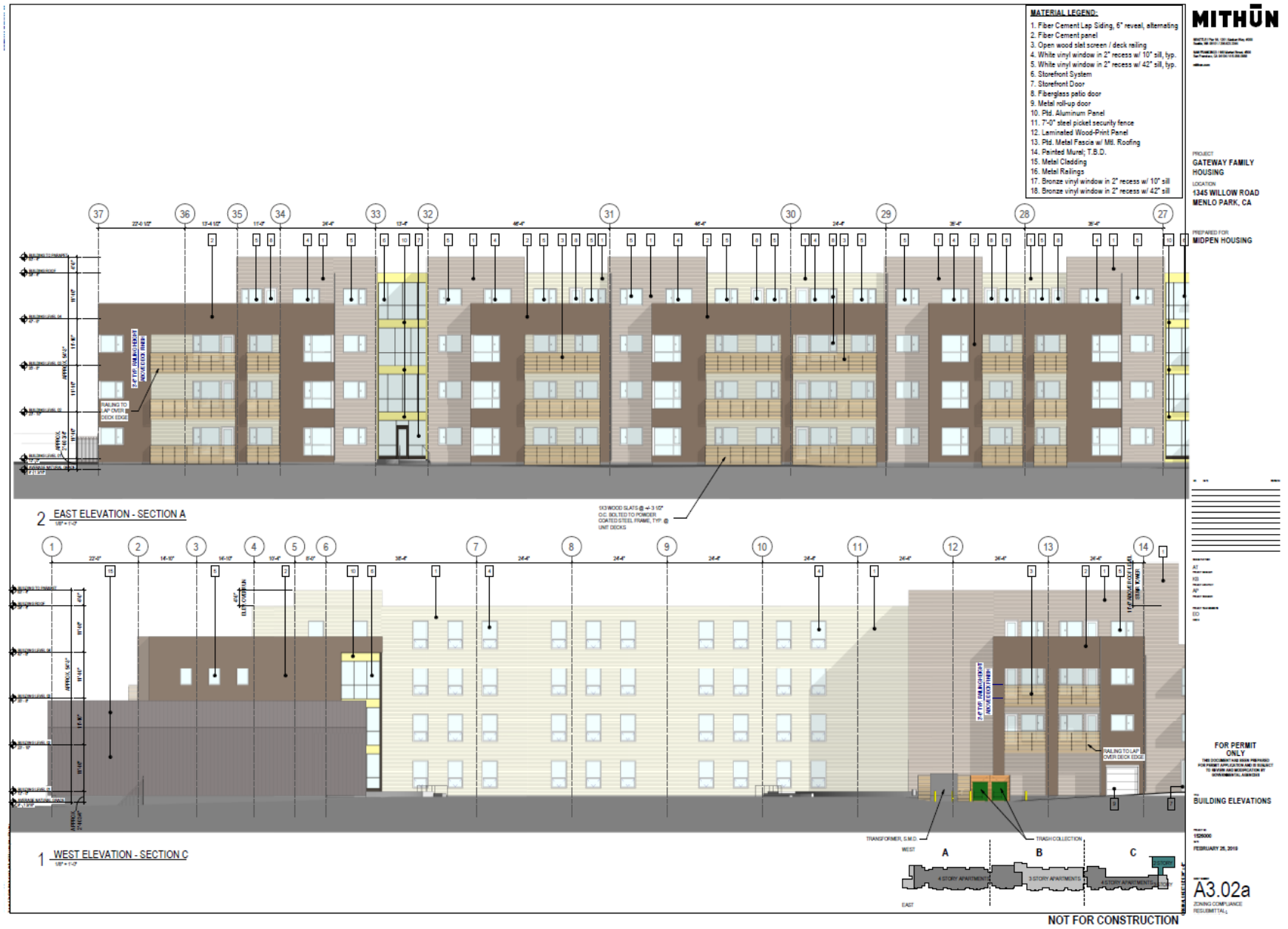


Figure 5 Elevations

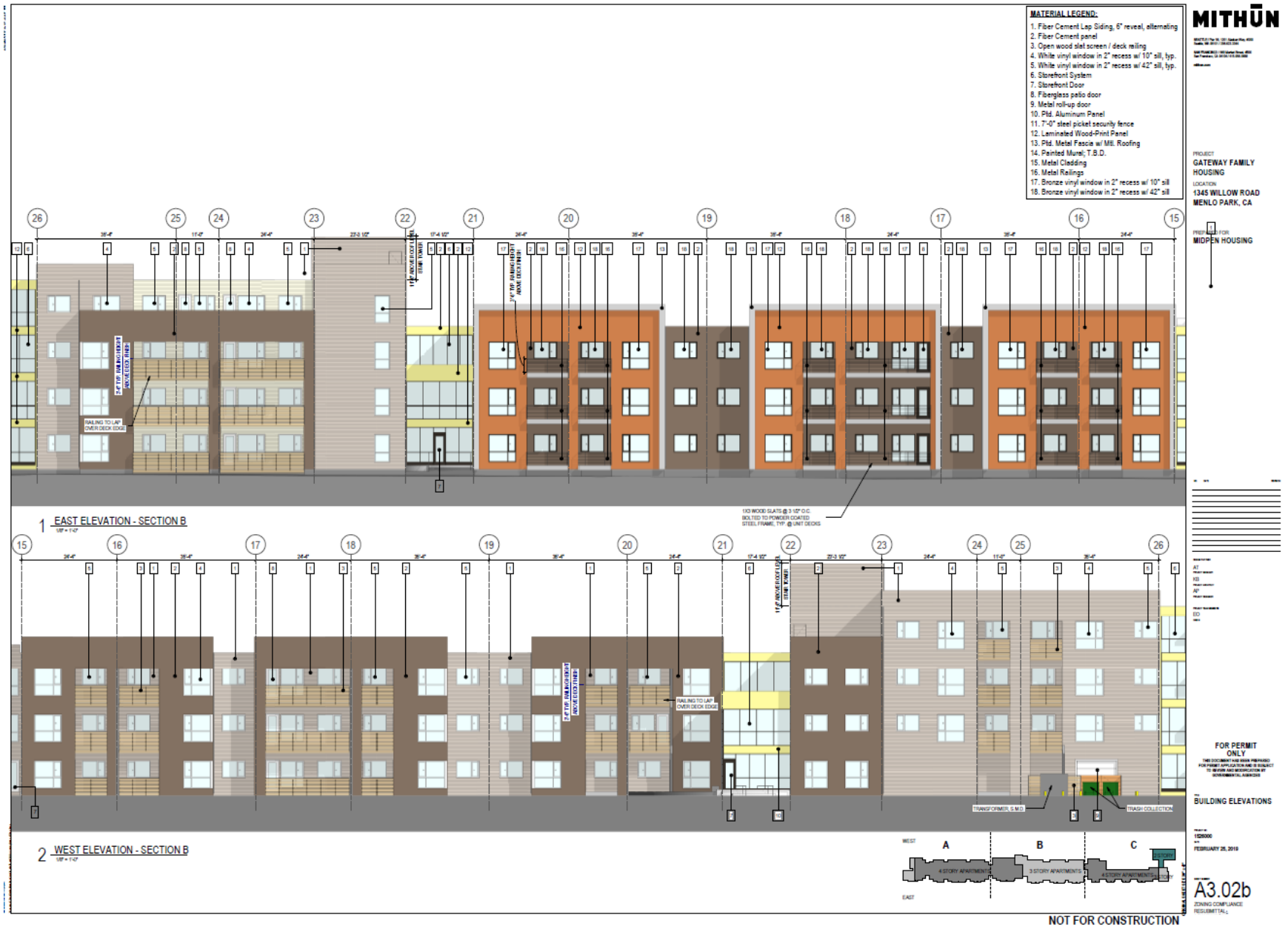


Figure 6 Elevations

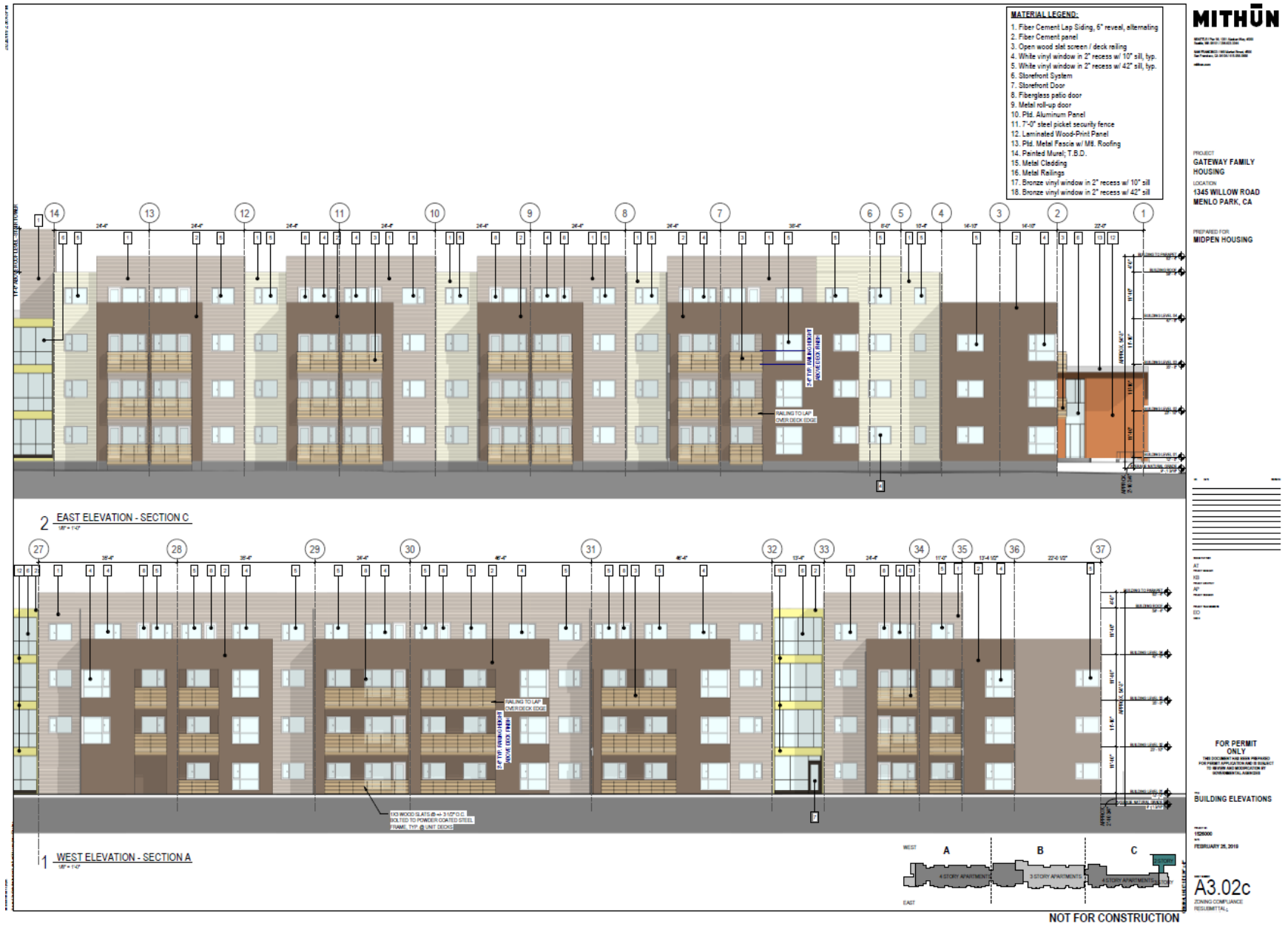
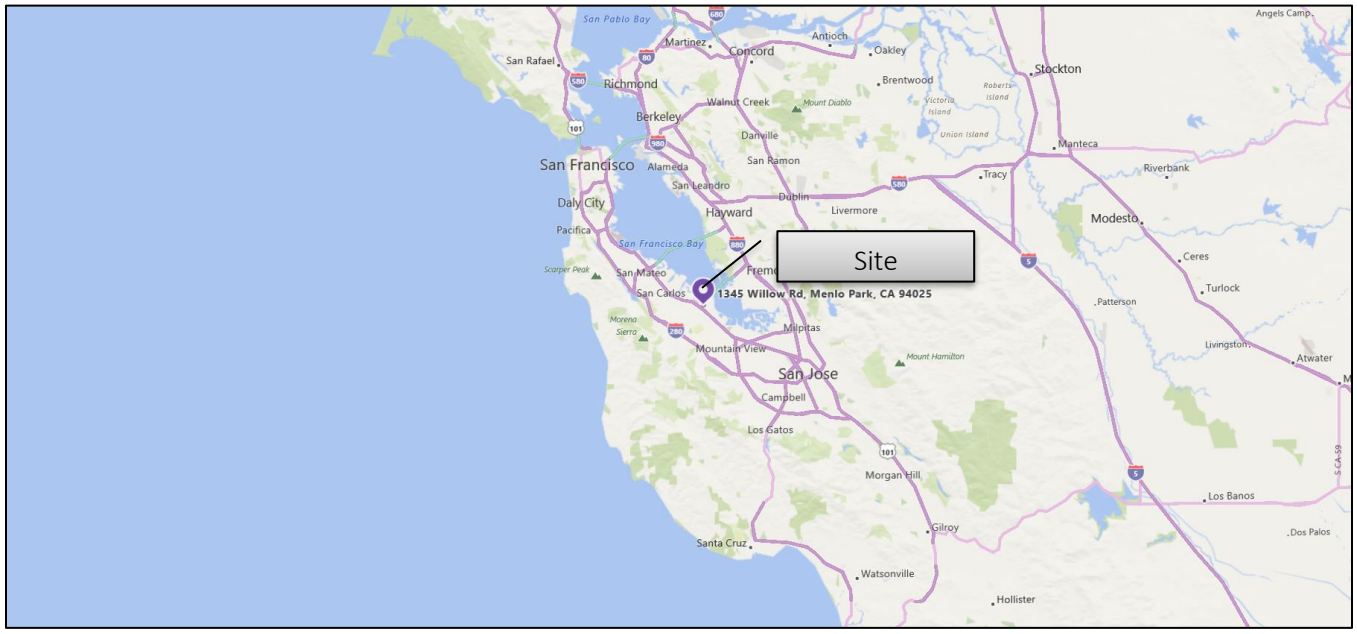
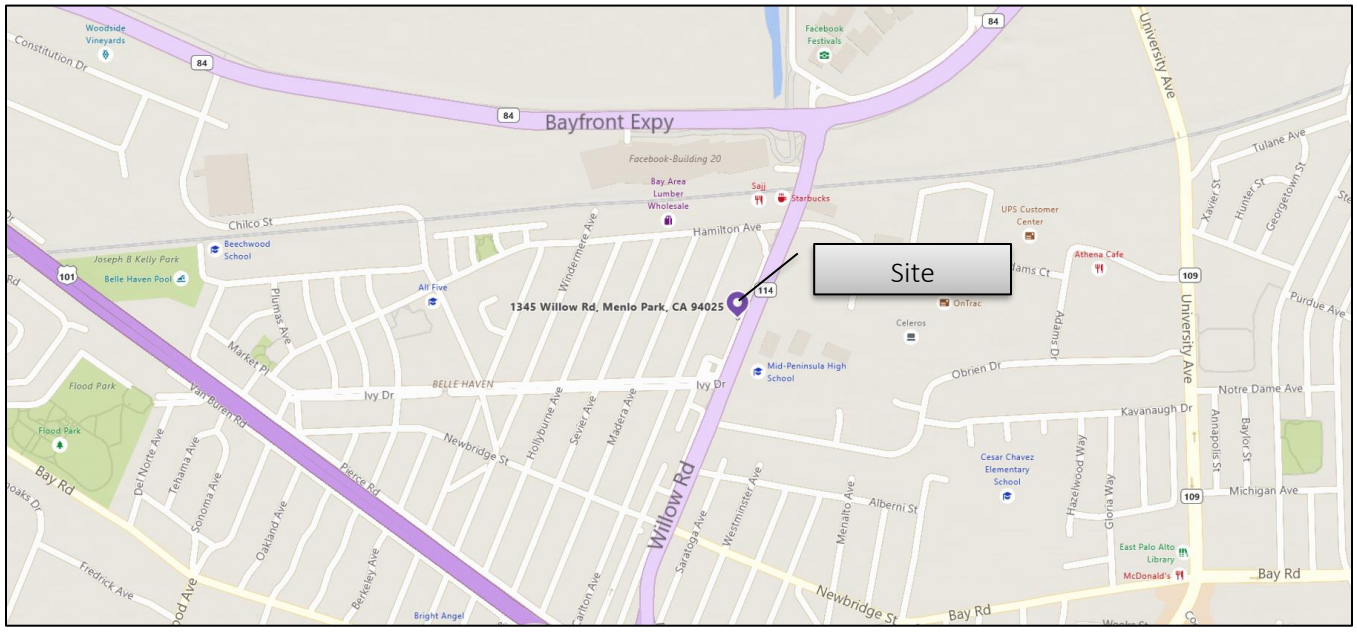


Figure 7 Elevations

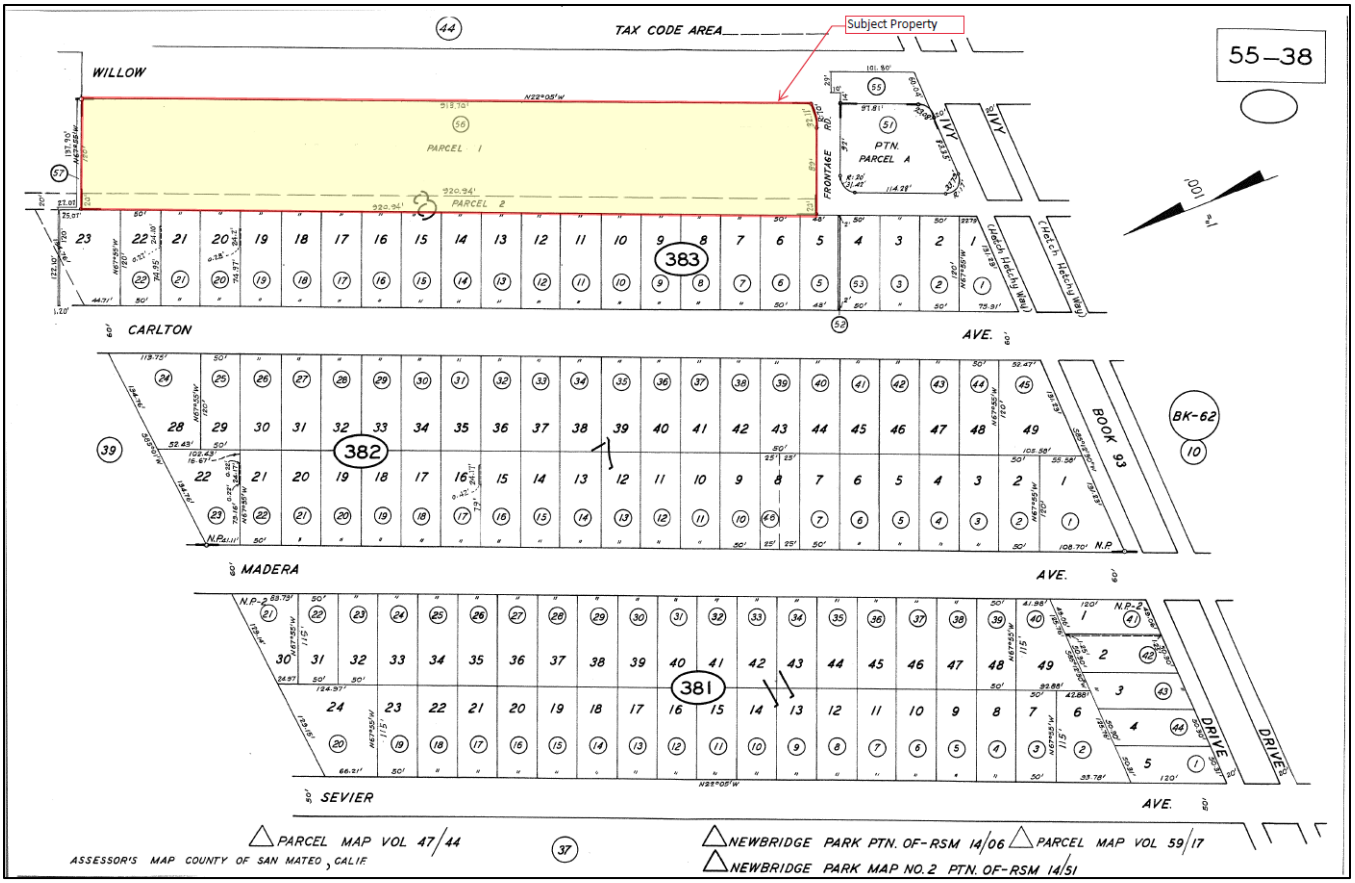
Project Location



Map 1 Region



Map 2 Local Setting



Map 3 Assessor Parcel Map

Figure 8 Bird's Eye View - Existing Conditions

Site Conditions

As of the 2010 census, the population of Menlo Park was 32,026. It is situated on the San Francisco Peninsula at the eastern edge of San Mateo County, in the San Francisco Bay Area of California. It is bordered by San Francisco Bay on the north and east; East Palo Alto, Palo Alto and Stanford to the south; Atherton, North Fair Oaks and Redwood City to the west. Menlo Park is one of the most educated cities in the U.S. with nearly 70% of its residents having earned an advanced degree.

According to the U.S. Census Bureau, the city has a total area of 17.4 square miles, of which 9.8 square miles is land and 7.6 square miles is water. The main street in downtown Menlo Park is Santa Cruz Avenue. Much of Menlo Park's economy centers around the companies on Sand Hill Road, consisting of venture capital, financial services, law firms, and other professional service companies and investment vehicles focusing on technology. Geron, Robert Half International, Exponent, Sunset and SRI International are among the companies based in Menlo Park. Facebook moved its headquarters to the former campus of Sun Microsystems in Menlo Park in 2011.

Menlo Park is located on the flatter portions of the south-western margin of Bay, east of the San Andreas Fault zone, which limit scenic vistas within the City. However, due to the flat nature, the majority of the City, particularly from the north and east of Highway 101, are afforded views of the Santa Cruz Mountain Range, which runs the length of the San Francisco Peninsula and forms a barrier between the Pacific Ocean and the Bay. Scenic resources also include the Bay itself and its natural features as viewed from the eastern and northern portions of the City, and the densely vegetated riparian area lining the open water of San Francisquito Creek seen from views along the city's southeast border. The grassy foothills, which are part of the larger Stanford foothills, provide the visual backdrop to the west of the City.

Site Characteristics

The subject property is occupied by residents in multiple pre-fabricated homes built in the 1960s. There are 82 residential units housing in 17 buildings. The parcel is a long, rectangular shaped parcel with the long-edge bordering Willow Road, also known as State Route 114, an arterial roadway connecting Highway 101 and the Bayshore Freeway.

Area of Potential Effects

The Area of Potential Effects (APE) includes the subject parcel and 25 of the surrounding properties, or 26 properties in all. The APE Map shows all in greater detail. Results of an eligibility evaluation of the APE Properties are summarized on Table 1, which follows.

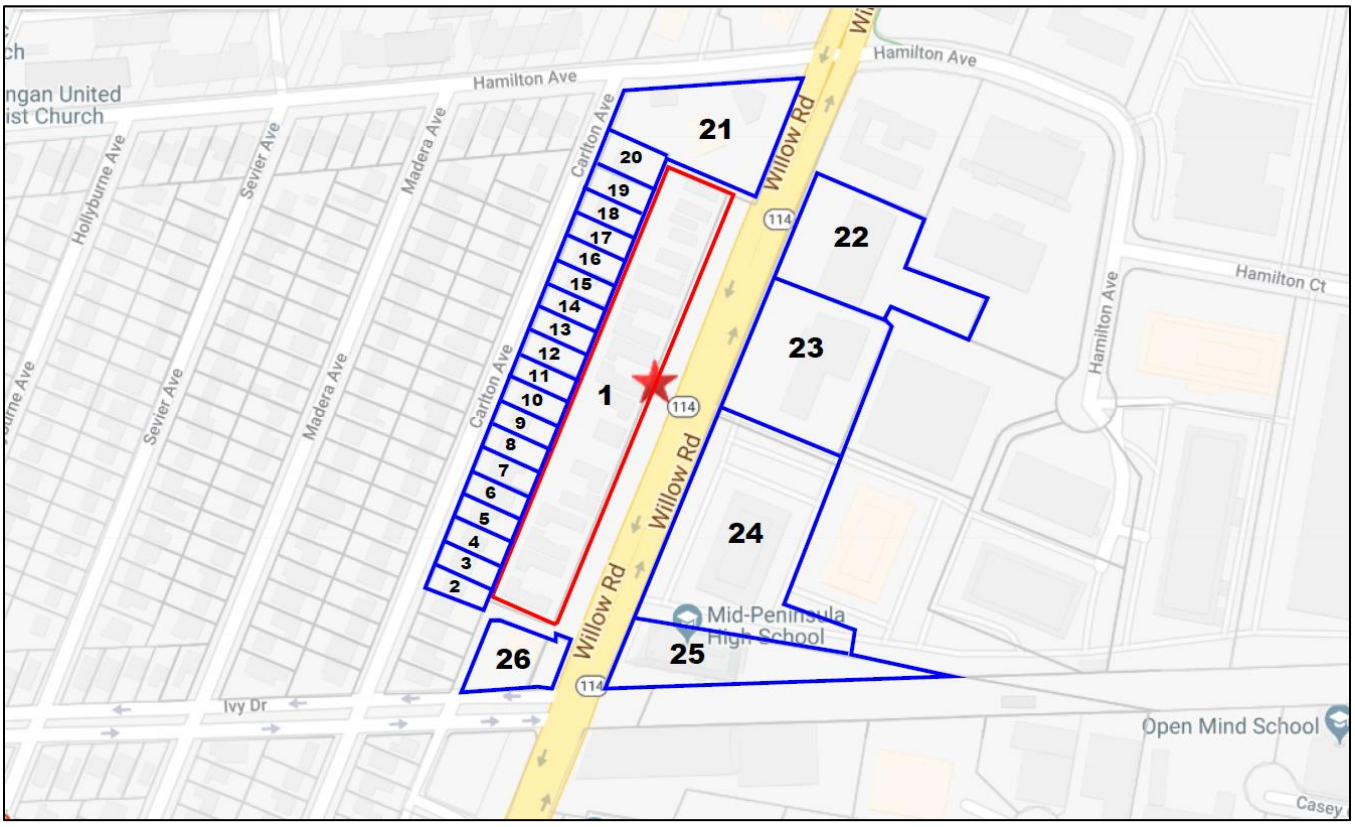
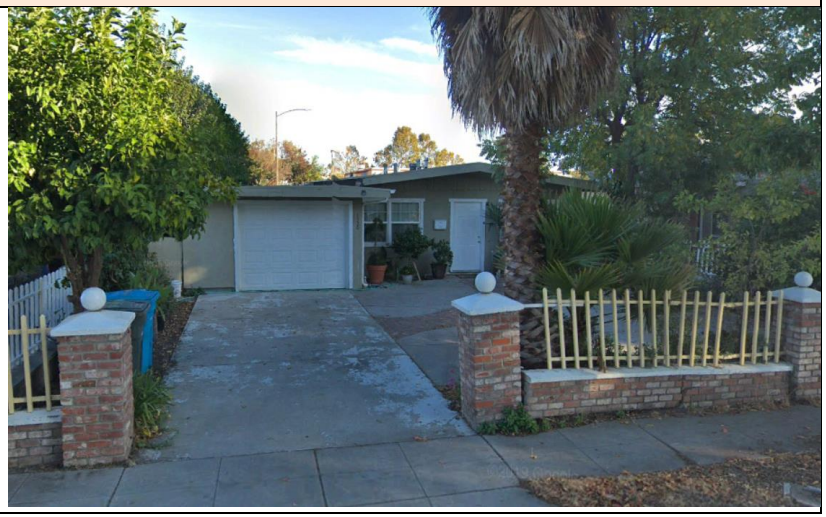


Figure 9 Area of Potential Effects

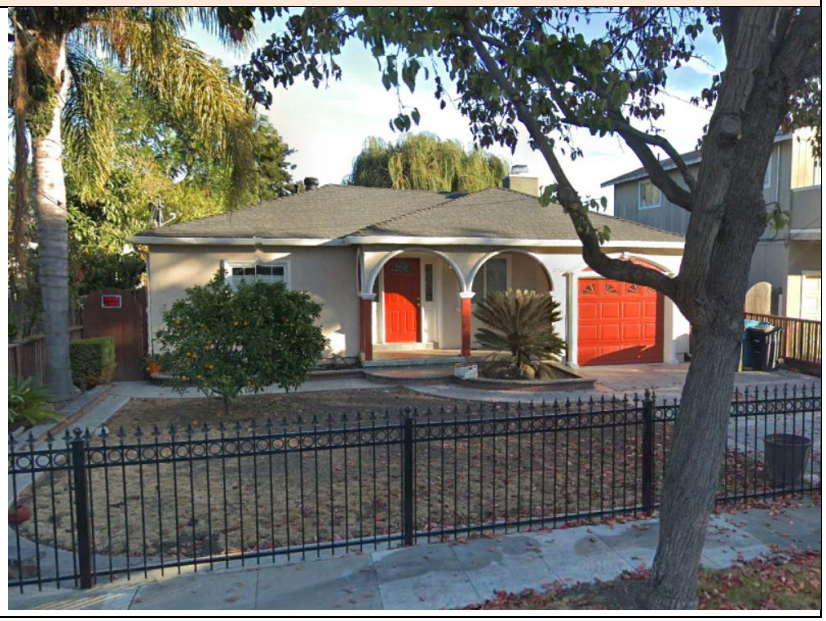
Table 1 Summary of Area of Potential Effects Properties – Gateway Family Housing – 1345 Willow Road, Menlo Park, CA 94025

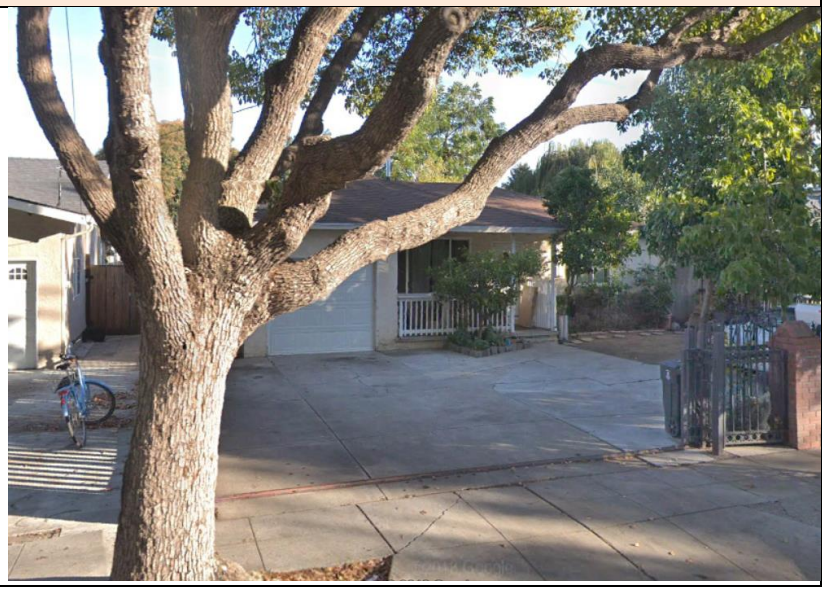
APE #	APN	Address	Owner	Year built	Comments	Photo
1	055-383-560	1345 Willow Road, Menlo Park, CA 94025	Menlo Gateway Inc.	1960s	**Subject Property** 82 multifamily units	

APE #	APN	Address	Owner	Year built	Comments	Photo
2	055-383-050	1320 Carlton Avenue, Menlo Park, CA 94025[1]	Sina Miri	1953	Single family residence	

[1] *All of the APE addresses are located in the City of Menlo Park, California 94025*

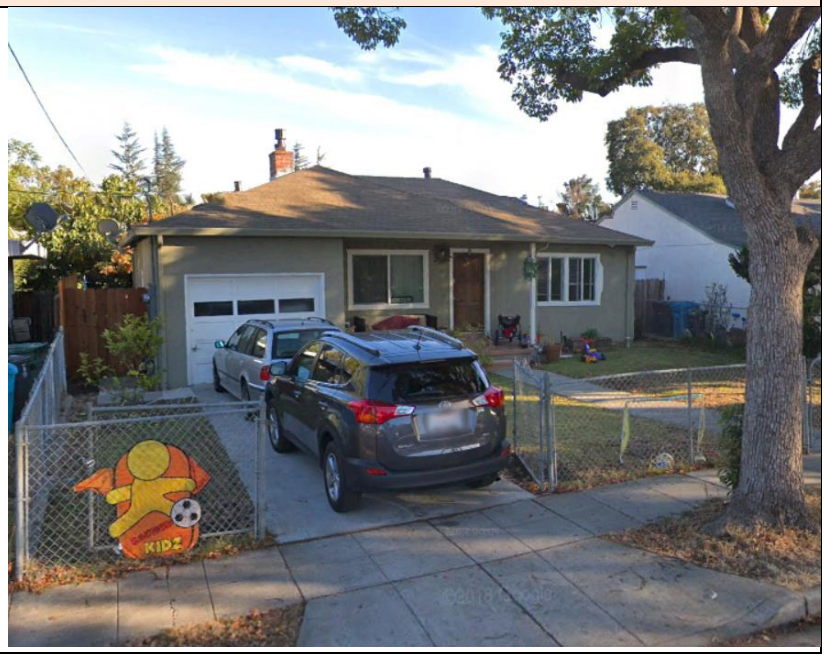
APE #	APN	Address	Owner	Year built	Comments	Photo
3	055-383-060	1324 Carlton Avenue	Daniel Percival	1949	Single family residence	

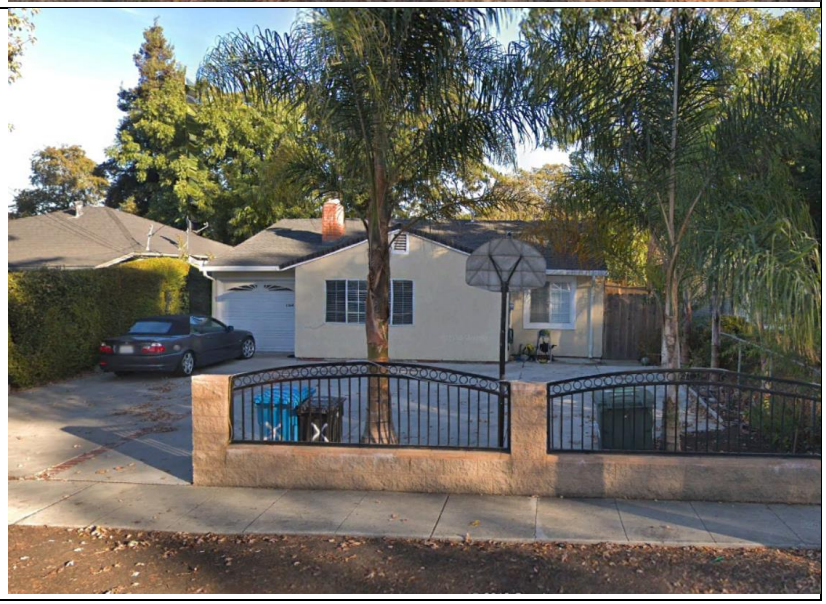
APE #	APN	Address	Owner	Year built	Comments	Photo
4	055-383-070	1328 Carlton Avenue	Andrew Stark	1950	Single family residence	

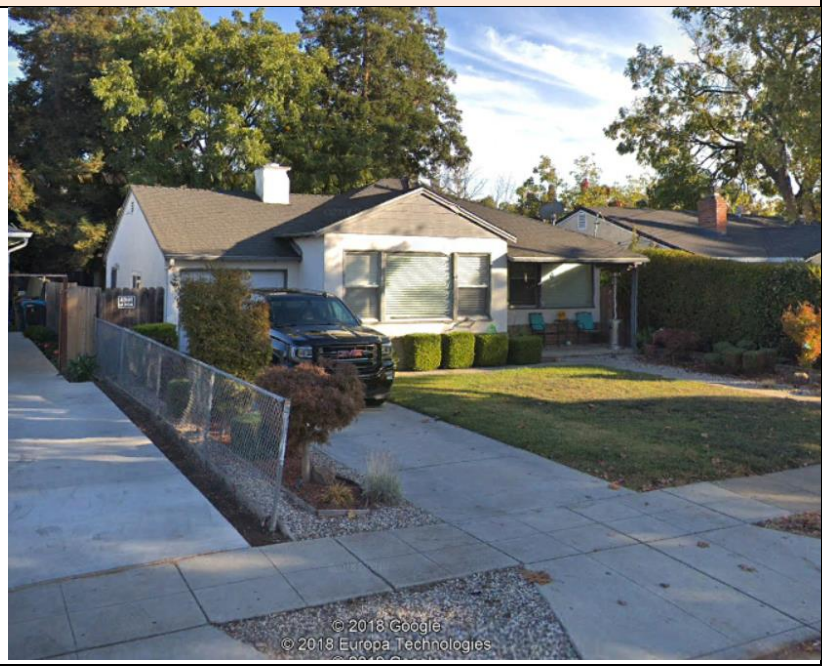
APE #	APN	Address	Owner	Year built	Comments	Photo
5	055-383-080	1332 Carlton Avenue	Angelica Orosco	1949	Single family residence	

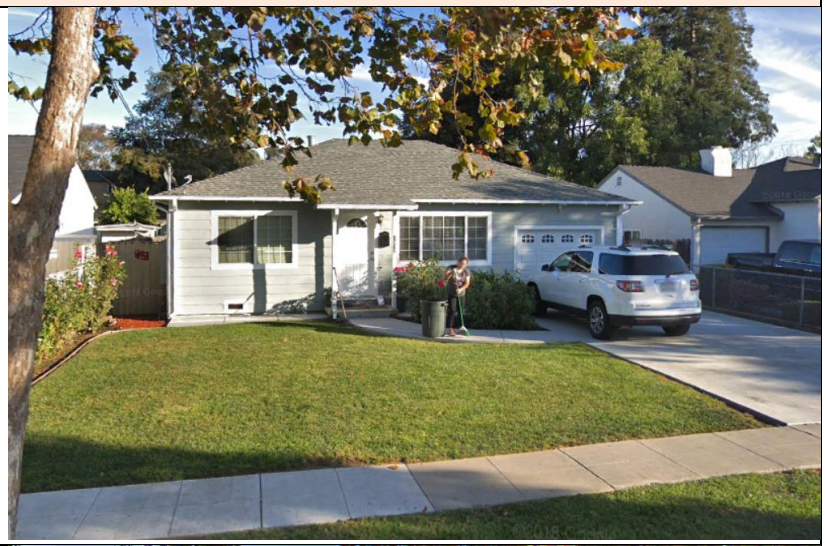
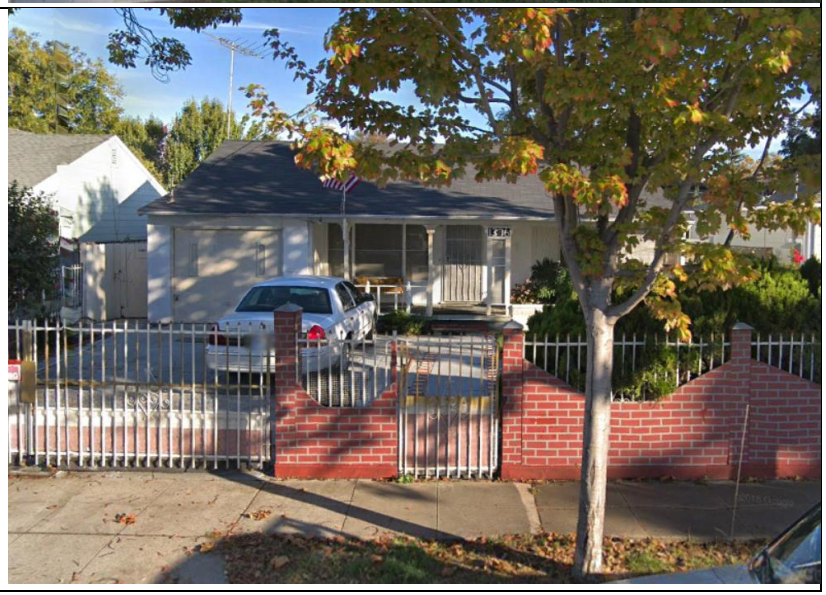
APE #	APN	Address	Owner	Year built	Comments	Photo
6	055-383-090	1334 Carlton Avenue	Afework Tewolde	1949	Single family residence	
7	055-383-100	1338 Carlton Avenue	Marcos Henriquez	1949	Single family residence	

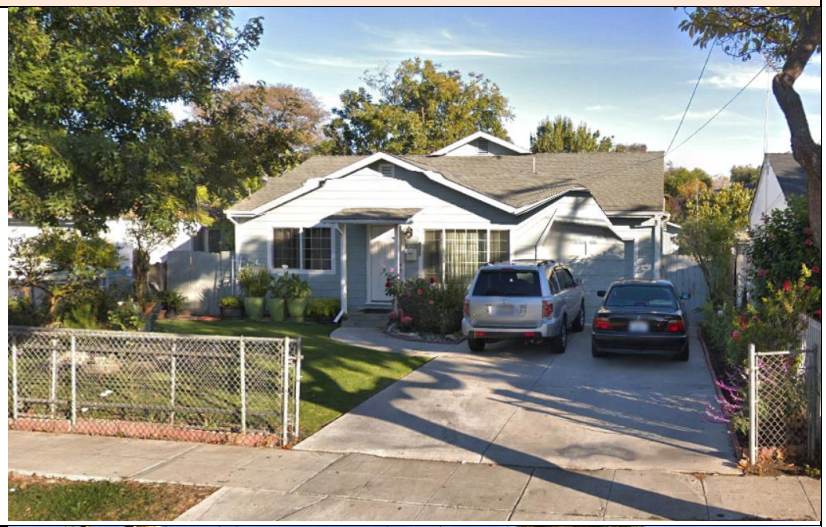
APE #	APN	Address	Owner	Year built	Comments	Photo
8	055-383-110	1352 Carlton Avenue	Maria Salas	1949	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
9	055-383-120	1356 Carlton Avenue	Mehdi Kaci	1949	Single family residence	

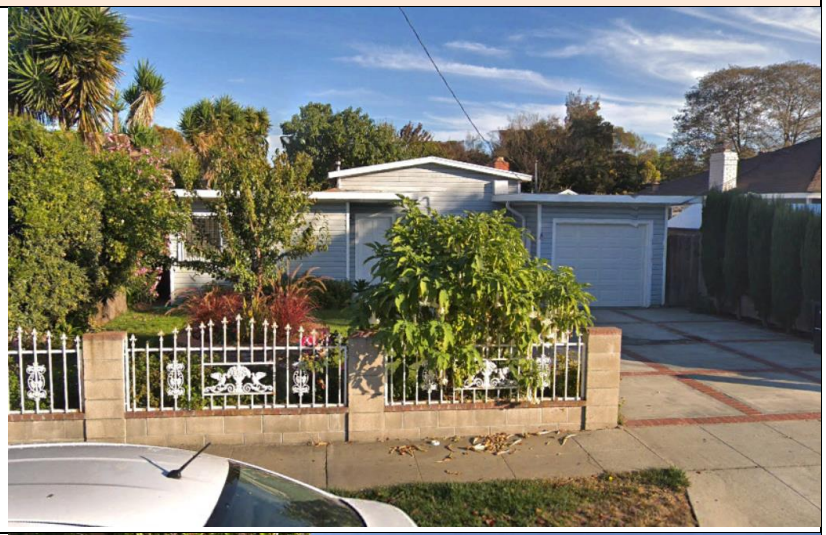
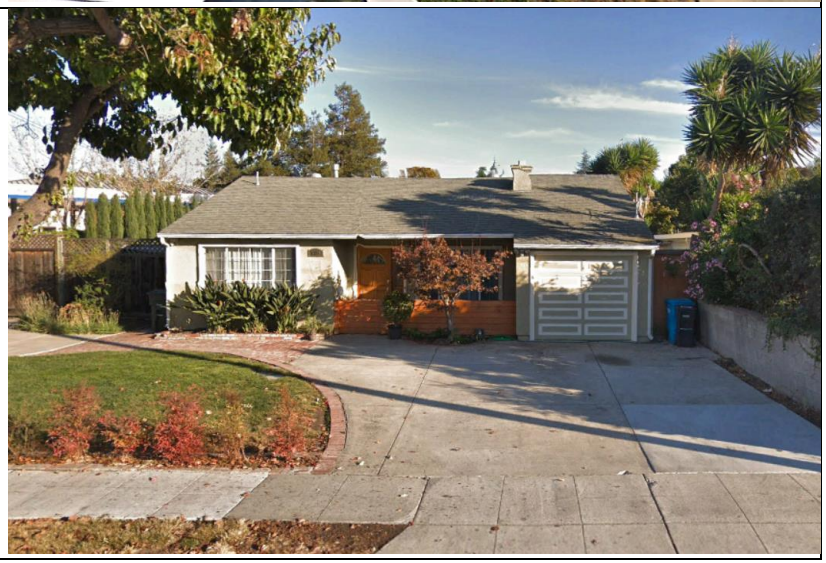
APE #	APN	Address	Owner	Year built	Comments	Photo
10	055-383-130	1360 Carlton Avenue	Honey Finley	1949	Single family residence	
11	055-383-140	1364 Carlton Avenue	Uriel Valdivias	1951	Single family residence	

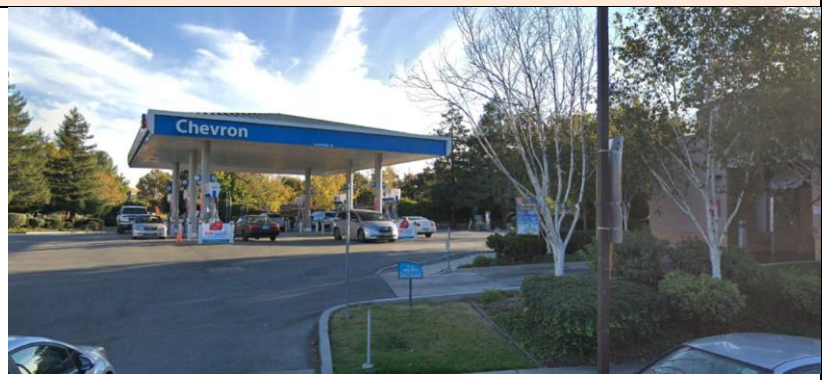
APE #	APN	Address	Owner	Year built	Comments	Photo
12	055-383-150	1368 Carlton Avenue	Alfred Dendy	1949	Single family residence	

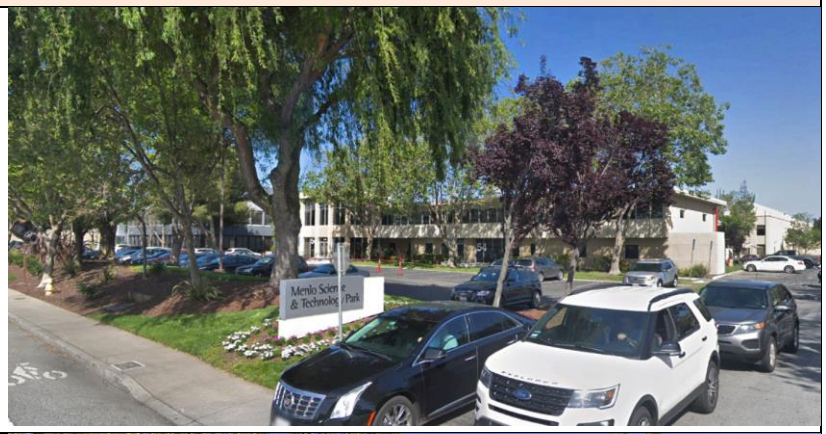
APE #	APN	Address	Owner	Year built	Comments	Photo
13	055-383-160	1372 Carlton Avenue	Vicente Chavez	1950	Single family residence	
14	055-383-170	1376 Carlton Avenue	Adell Shepard Sr.	1950	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
15	055-383-180	1380 Carlton Avenue	Vincente Chavez	1950	Single family residence	
16	055-383-190	1384 Carlton Avenue	Donald Foreman	1948	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
17	055-383-200	1388 Carlton Avenue	Jesus Garnica	1951	Single family residence	
18	055-383-210	1392 Carlton Avenue	Ning Zhang	1948	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
19	055-383-220	1394 Carlton Avenue	Yanfeng Wang	1951	Single family residence	
20	055-395-060	1396 Carlton Avenue	Tzjeng Yang	1952	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
21	055-395-090	1399 Willow Road	Chevron USA	2000	Gas station	
22	055-440-300	1380 Willow Road	Peninsula Innovation Partners LLC	1982	Packing Plant	

APE #	APN	Address	Owner	Year built	Comments	Photo
23	055-440-210	1370 Willow Road	Peninsula Innovation Partners LLC	Unk	Light Manufacturing	
24	055-440-350	1350 Willow Road	Peninsula Innovation Partners LLC	Unk	Office Building	

APE #	APN	Address	Owner	Year built	Comments	Photo
25	055-432-150	1340 Willow Road	Mid Pen Education Center Inc.	Unk	Private School	
26	055-383-510 and 055-383-550	1305 Willow Road	Dora Caballero	1979	One story store with parking lot	

Evaluation

SUBJECT PROPERTY

APE #1 – The subject parcel is currently improved with pre-fabricated buildings from the 1960s. The Subject property consists of 17 one-story apartment buildings, 11 two-story apartment buildings, 1 one-story common area leasing office / laundry room / apartment building, and 1 one-story community / laundry room building. The project envisions demolition of these buildings prior to redevelopment of the site at a higher density. The structures are not associated with persons important in our past, broad patterns of history or the work of a master. They are unlikely to yield information important in history or prehistory. None of the subject property buildings appear eligible for the National Register of Historic Places.

SURROUNDING PROPERTIES

APE #2 – 20 are all one- and two-story, single family homes built between 1948 and 1953, with the majority constructed in 1948. Most are one story single family homes that face Carlton Street, and back to the subject property. The homes all are of average construction and vary in style from contemporary to ranch to bungalow. The houses were built at various times from the late 1940s to the early 1950s and are mixed together on each block, indicating that several different builders were probably involved, with each builder constructing a small number of houses on scattered lots. This contrasts with the more typical method of postwar housing construction, whereby a single builder constructs an entire subdivision in a short period of time. None of the three subdivisions are sufficiently cohesive architecturally or possess sufficient integrity to convey a sense of their time, and therefore they do not appear to have the potential to meet the National Register criteria. The City of Menlo Park has not identified any of these properties as local or California Register eligible properties.

APE #21 is a gasoline dispensing station constructed in 2000 and is less than 50 years old; therefore it will not be evaluated further for historic significance.

APE #22 – 24 are buildings owned by Peninsula Innovation Partners that operate a packing plant, offices and light industrial, across Willow Road from the project site. All were constructed in 1982 or later and therefore are less than 50 years of age. None will be evaluated for historic significance.

APE #25 is a private school building constructed in the 2000s and is less than 50 years old; therefore it will not be evaluated further for historic significance.

APE #26 is a one-story store building and parking lot constructed in 1979 and is less than 50 years old; therefore it will not be evaluated further for historic significance.

CITY OF MENLO PARK HISTORIC RESOURCES

The City of Menlo Park, *Housing Element, General Plan Consistency Update, and Zoning Ordinance Amendments Environmental Assessment,* Cultural Resources section identifies the subject property as a potential target for higher-density development and determined that it does not appear eligible for the California Register of Historic Places. No identified or potentially eligible historic resources are located on or near the project site in this document (see figure below, full size figure attached).

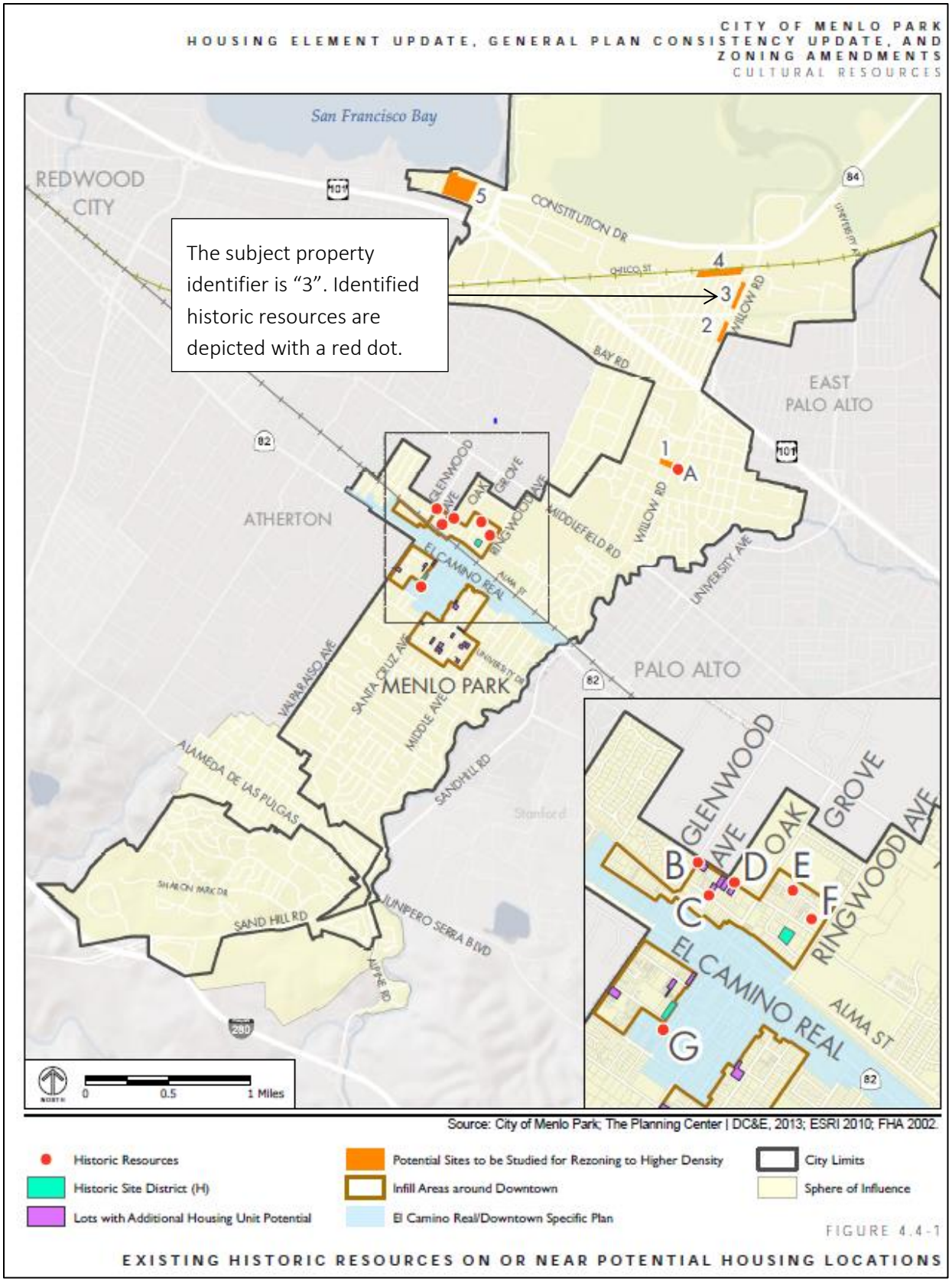


Figure 10 Existing Historic Resources on or Near Potential Housing Locations

CONCLUSION

There are no buildings on or near the project site that appear eligible for the National Register of Historic Places under any criteria listed. No formal evaluations were warranted.

Source: (2)

Archaeology

The Area of Potential Effects for archaeology is the limit of the subject property, 2.96 acres in size, to the depth required for redevelopment of the site. The site is currently developed and covered in buildings, parking areas, and landscaping, precluding a field survey at this time.

The City of Menlo Park was originally the home of Ohlone Indians. The Ohlone lived off the land and due to the abundance of food they did not practice agriculture. Evidences of their civilization are still being unearthed on the Filoli estate in Woodside, and along San Francisquito Creek.

In 1769 Spanish rule was introduced to the area when the exploration party led by Don Gaspar de Portola camped near "El Palo Alto" after their momentous discovery of San Francisco Bay. The colonizing of the Peninsula began after the expedition of Juan Bautista DeAnza passed through Menlo Park on its way to establishing Mission Dolores and the Presidio of San Francisco in 1776. The mission padres, explorers, military personnel, travelers, and settlers occupied certain areas, developing and populating the land.

In 1854 Dennis J. Oliver and Daniel McGlynn purchased 1,700 acres from the Don Jose Dario Arguello family that had legally obtained the title to the land in 1853. Around this time Menlo Park received its official name when Oliver and McGlynn erected an arch with the words “Menlo Park” on it to honor their former home in Menlough, County Galway, Ireland. In 1863, the Southern Pacific Railroad was extended to the community of Menlo Park. In the late 1850s, the road between San Francisco and San Jose was completed. Wealthy families purchased large tracts of land and were more or less self-sufficient, producing their own food. Workers lived within the estate grounds. San Mateo County became independent of San Francisco County in 1856.

During this same period, the downtown area of Menlo Park began to develop along Oak Grove Avenue between the railroad station and El Camino Real. By 1870, twelve buildings situated between the railroad station and El Camino Real in the vicinity of Oak Grove Avenue were constructed, consisting of two general stores, three hotels, livery stables, saloons, and three blacksmith shops. The first store in Menlo Park was on the corner of Oak Grove Avenue and El Camino Real.

On March 23, 1874, Menlo Park became the second incorporated City in San Mateo County, although only for a short time. The purpose was to provide a quick way to raise money for road repairs. This incorporation, which included Fair Oaks (later Atherton) and Ravenswood (later East Palo Alto) lasted only until 1876. Churches were founded, schools were opened, and businesses were established. The first church in San Mateo County was built by Dennis Martin on his ranch in 1856. It was the only Catholic Church between Mission Dolores in San Francisco and Mission Santa Clara until St. Matthew's Church was built in 1863 and St. Matthew's Episcopal Church in 1865, both in San Mateo. The Church of the Nativity in Menlo Park was built in 1872.

Menlo Park's population increased slowly until World War I. In 1917, 27,000 soldiers were stationed at Camp Fremont in Menlo Park. The training camp covered approximately 25,000 acres south along El Camino Real. Menlo Park's first gas and water services, its first paved streets, and an increase in businesses were a direct result of the transient military population. Following the closure of Camp Fremont in 1919, Menlo Park reverted to a small town with 2,300 residents.

The original Dumbarton Bridge opened in 1927, connecting the South Bay and East Bay. In 1931, the Bayshore Highway (now Highway 101) linked Menlo Park and San Francisco. In 1940, Menlo Park's population was 3,258. World War II brought about many changes in the small town. Between 1943 and 1946 another military installation, Dibble General Hospital, was built on the old Timothy Hopkins estate to care for the thousands of soldiers injured in the South Pacific in World War II. Following World War II, in the 1950s, the hospital campus became the site of the Menlo Park Civic Center, Stanford Research Institute (today's SRI International), and the United States Geological Survey. Today Menlo Park is a suburban residential community with a variety of businesses, including high-tech industries.

It is highly improbable that archaeological deposits associated with the historic period of Menlo Park exist at the project site as the site has already been developed. In addition, it is highly improbable that unrecorded Native American prehistoric archaeological sites exist at the subject property, including those that are buried under alluvial or fill soils.

Source: (2)

California Historical Resources Information System (CHRIS) Records Search

A records search of the California Historical Resources Information System (CHRIS) was conducted by the Northwest Information Center, Sonoma State University on April 10, 2019 (File No. 18-1918). A summary follows and the letter report is attached.

Review of pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Mateo County indicates that there has been one cultural resource study that includes approximately 100% of the Gateway Family Housing project area (Kaptain 2009: S-38063). Please note the portion of this study that included the current project area was a record search only and did not include a field survey. This project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no recorded buildings or structures within or adjacent to the proposed project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed Gateway Family Housing project area.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Ramaytush language, part of the Costanoan language family. There is one Native American village area in or adjacent to the proposed project area referenced in the ethnographic literature, the village of Puichon.

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the San

Francisco bayshore, inland near upland areas and ecotones, and near intermittent and perennial freshwater courses. The Gateway Family Housing project area is located in the Menlo Park area in the southwest portion of San Francisco Bay. The project area is located in Holocene alluvial fan deposits located approximately 270 meters south of the historic San Francisco bayshore margins. Given the similarity of one or more of these environmental factors and the ethnographic sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Gateway Family Housing project area.

Review of historical literature and maps indicated the possibility of historic-period activity within the Gateway Family Housing project area. An early San Mateo County map indicates the project area was located within the lands of J.P. Rynders. In addition, the 1943 Palo Alto USGS 15-minute topographic quadrangle depicts one building within the project area. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Gateway Family Housing project area.

Source: (3)

NATIVE AMERICAN CONTACTS

On April 5, 2019 the Native American Heritage Commission (NAHC) was contacted to conduct a Sacred Land inventory to determine if there are any Sacred Sites located within or near to the project site. The NAHC works to identify, catalogue, and protect places of special religious or social significance, graves, and cemeteries of Native Americans per the authority given the Commission in Public Resources Code §5097.9. On April 8, 2019 the NAHC replied with a letter stating that a search of the Sacred Lands File results were negative, however, they noted the area is sensitive for cultural resources.

Source : (4) (5)

Conclusion

The project area lies near the historic marsh margin, which was used extensively during prehistoric times for procuring resources, and often elevated spots near the marsh were used as village, camp, and resource procurement sites. The possibility of finding prehistoric archaeological resources within the project area is considered to be moderate. The potential for historic-period archaeological deposits is considered low. Given the potential for finding archaeological deposits on this parcel, it is recommended that conditions of approval include a qualified archaeologist examine the subject property after asphalt, buildings, and fill soils have been removed, but prior to other ground disturbing, construction related activities.

None of the adjacent properties are historic buildings, or designated as landmarks nor are they listed on the National Register of Historic Places. None of the structures in the Area of Potential Effects appear to be eligible for listing in the national Register of Historic Places. No prehistoric or historical archaeological sites were identified within the study area and no resource-specific recommendations are warranted.

Recommended Determination

For purposes of Section 106 Review of this undertaking, AEM Consulting recommends that the Agency Official determine that there are no historic properties in the Area of Potential Effects that will be adversely affected. The reason is there are no properties eligible for the National Register in the Area of Potential Effects of this undertaking.

Further, it is recommended that the following mitigations be incorporated into the project in the event of accidental discovery of buried cultural resources during construction:

CR1. After asphalt, buildings, and fill soils have been removed, but prior to other ground disturbing, construction related activities, a qualified archaeologist shall examine the subject property.

CR2. If during project construction activities previously unidentified archaeological resources are discovered, all project activities in the immediate vicinity of the discovery would be halted and the procedures of 36 CFR Part 800.13(b) and (c) would be followed. [Paragraph I.A. Inadvertent Archaeological Resource Discovery]

CR3. Upon discovery of Native American human remains and associated or unassociated funerary objects, the City of Menlo Park shall treat them in accordance with provisions of California Public Resources Code Section 5097.94, 5097.98, and 5097.99 and the California Health and Safety Code Section 7050.5 or as provided in federal implementing regulations found in 36 CFR 800.13(b)(2). [Paragraph I.B. Treatment of Native American human remains and cultural properties]

CR4. For any archaeological resources discovered during the excavation and construction phase, all project activities in the immediate vicinity of the discovery would halt. Procedures of 36 CFR Part 800.13(b) and (c); PRC Sections 5097.94, 5097.98 and 5097.99; and the California Health and Safety Code Section 7050.5 would be followed, including calling an archaeologist or paleontologist to evaluate the materials.

CR5. If paleontological resources were found during site excavation and construction, work would be halted until a paleontologist could evaluate the nature and significance of the resources. If significant resources were confirmed, the OHP and the California Department of State Parks would be contacted for further guidance on documentation and preservation. Protocol for the discovery of paleontological resources during construction would be the same as that for archaeological resources: project activities in the immediate vicinity of the discovery would halt, and procedures of 36 CFR Part 800.13(b) and (c); PRC Sections 5097.94, 5097.98 and 5097.99; and the California Health and Safety Code Section 7050.5 would be followed, including calling an archaeologist or paleontologist to evaluate the materials.

Source Documentation/Attachments:

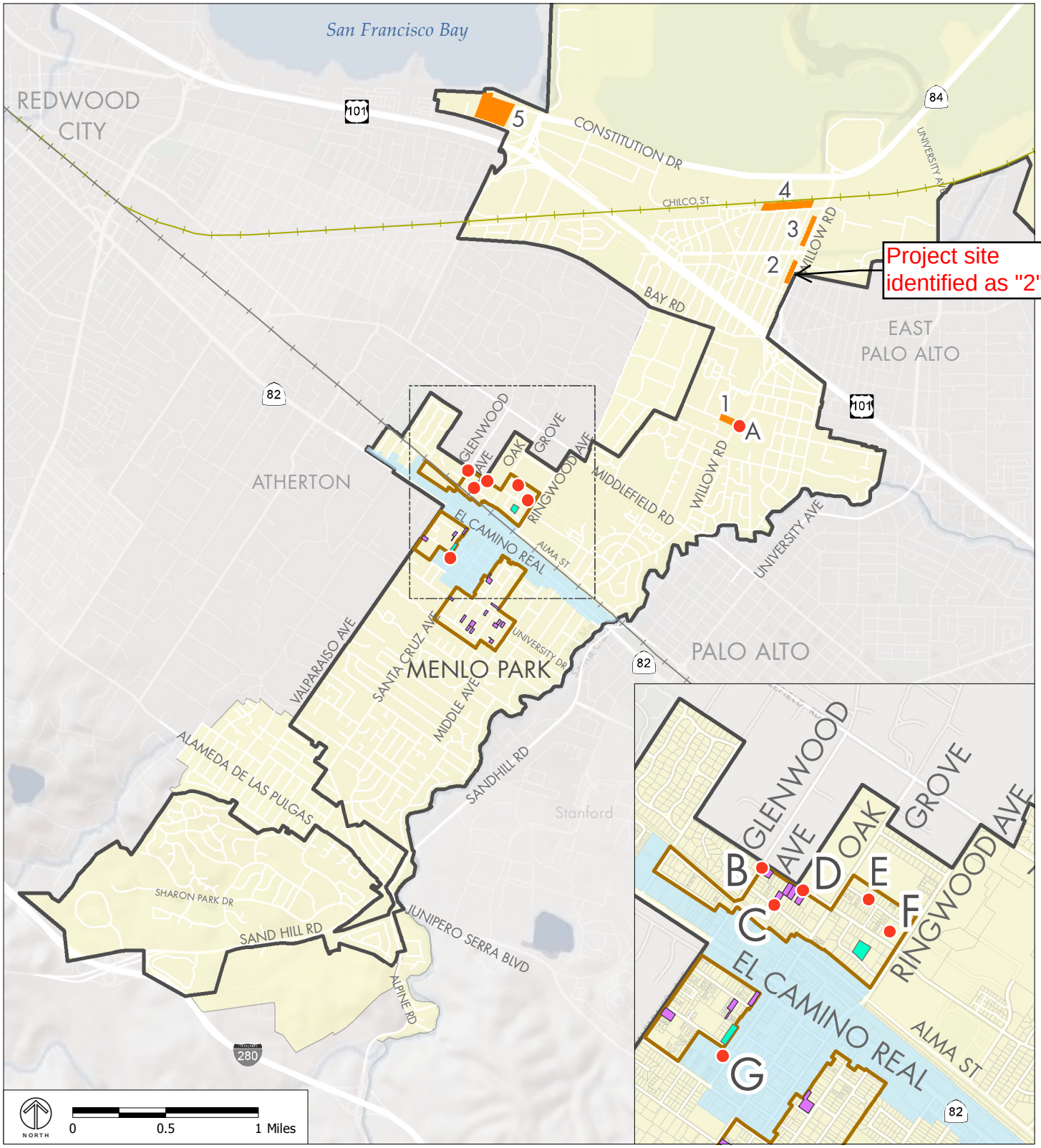
1. Mithun Architects. *Gateway Family Housing, 1345 Willow Road, Menlo Park, CA - Plans & Drawings.* San Francisco, CA : s.n., February 25, 2019. Project Number 1526000.

2. City of Menlo Park. *Housing Element Update, General Plan Consistency Update, and Zoning Ordinance Amendments Environmental Assessment.* Berkeley, CA : The Planning Center DC&E, April 4, 2013.

3. Guldenbrein, Jillian. *Records search results for the proposed Gateway Family Housing at 1317 and 1345 Willow Road (APN 055-383-560) in Menlo Park, San Mateo County, CA.* Rohnert Park, CA : California Historical Resources Information System, Northwest Information Center, Sonoma State University, April 10, 2019. NWIC File No.: 18-1918.

4. Crake, Cinnamon. *Letter to the Native American Heritage Commission.* s.l. : AEM Consulting, April 5, 2019.

5. Totton, Gayle. *Letter to Cinnamon Crake, AEM Consulting in RE: Gateway Family Housing Project, City of Menlo Park; Palo Alto USGS Quadrangle, San Mateo County, California.* West Sacramento, CA : Native American Heritage Commission, April 8, 2019.



Source: City of Menlo Park; The Planning Center | DC&E, 2013; ESRI 2010; FHA 2002.

- Historic Resources
- Historic Site District (H)
- Lots with Additional Housing Unit Potential
- Potential Sites to be Studied for Rezoning to Higher Density
- Infill Areas around Downtown
- El Camino Real/Downtown Specific Plan
- City Limits
- Sphere of Influence

FIGURE 4.4-1

EXISTING HISTORIC RESOURCES ON OR NEAR POTENTIAL HOUSING LOCATIONS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

April 10, 2019 NWIC File No.: 18-1918

Cinnamon Crake
AEM Consulting
422 Larkfield Center #104
Santa Rosa, CA 95403

Re: Record search results for the proposed Gateway Family Housing at 1317 and 1345 Willow Road (APN 055-383-560) in Menlo Park, San Mateo County, CA.

Project Description: to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities.

Dear Cinnamon Crake:

Per your request received by our office on April 5, 2019, a rapid response records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Mateo County. An Area of Potential Effects (APE) map was not provided; in lieu of this, the location map provided depicting the Gateway Family Housing project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

Review of this information indicates that there has been one cultural resource study that includes approximately 100% of the Gateway Family Housing project area (Kaptain 2009: S-38063). Please note the portion of this study that included the current project area was a record search only and did not include a field survey (2009:13, 17, 20). This Gateway Family Housing project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of

Historic Places) lists no recorded buildings or structures within or adjacent to the proposed Gateway Family Housing project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed Gateway Family Housing project area.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Ramaytush language, part of the Costanoan language family (Levy 1978:485). There is one Native American village area in or adjacent to the proposed Gateway Family Housing project area referenced in the ethnographic literature [the village of Puichon (Milliken 1995).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the San Francisco bayshore, inland near upland areas and ecotones, and near intermittent and perennial freshwater courses. The Gateway Family Housing project area is located in the Menlo Park area in the southwest portion of San Francisco Bay. The project area is located in Holocene alluvial fan deposits located approximately 270 meters south of the historic San Francisco bayshore margins. Given the similarity of one or more of these environmental factors and the ethnographic sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Gateway Family Housing project area.

Review of historical literature and maps indicated the possibility of historic-period activity within the Gateway Family Housing project area. An early San Mateo County map indicates the project area was located within the lands of J.P. Rynders (Bromfield 1894). In addition, the 1943 Palo Alto USGS 15-minute topographic quadrangle depicts one building within the project area. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Gateway Family Housing project area.

The 1948 and 1961 Palo Alto USGS 15-minute topographic quadrangle depicts an urban area, indicating one or more buildings or structures within the Gateway Family Housing project area. Any unrecorded buildings or structures present may meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There is a high potential for Native American archaeological resources and a high potential for historic-period archaeological resources to be within the project area. Given the potential for archaeological resources in the proposed Gateway Family Housing

project area, our usual recommendation would include archival research and a field examination. The proposed project area, however, has been highly developed and is presently covered with asphalt, buildings, or fill that obscures the visibility of original surface soils, which negates the feasibility of an adequate surface inspection.

Therefore, prior to demolition or other ground disturbance, we recommend a qualified archaeologist conduct further study be undertaken to adequately assess locations of the proposed project that have the potential to disturb sensitive landforms. Field study may include, but is not limited to, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of buried archaeological resources. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

2) No historic properties were located in the Gateway Family Housing project area. If, in a later process, buildings or structures are identified that meet the minimum age requirement, we recommend that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings or structures:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered **during construction,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include

stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: http://ohp.parks.ca.gov/default.asp?page_id=1069.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

Jillian Guldenbrein
Researcher

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Bowman, J.N.
1951 *Adobe Houses in the San Francisco Bay Region*. In Geologic Guidebook of the San Francisco Bay Counties, Bulletin 154. California Division of Mines, Ferry Building, San Francisco, CA.

Brabb, Earl E., Fred A. Taylor, and George P. Miller
1982 *Geologic, Scenic, and Historic Points of Interest in San Mateo County, California*. Miscellaneous Investigations Series, Map I-1257-B, 1:62,500. Department of the Interior, United States Geological Survey, Washington, D.C.

Bromfield, Davenport
1894 Official Map of San Mateo County, California

Heizer, Robert F., editor
1974 *Local History Studies*, Vol. 18., "The Costanoan Indians." California History Center, DeAnza College, Cupertino, CA.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair
1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe
1966 *Historic Spots in California*. Third Edition. Stanford University Press, Stanford, CA.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle
1990 *Historic Spots in California*. Fourth Edition. Stanford University Press, Stanford, CA.

Kaptain, Neal (LSA Associates, Inc.)
2009 *Smart Corridors Geoarchaeological Sensitivity Research (letter report).* **NWIC Report S-038063**

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

Levy, Richard
1978 Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-495. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Milliken, Randall
1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Myers, William A. (editor)
1977 *Historic Civil Engineering Landmarks of San Francisco and Northern California*. Prepared by The History and Heritage Committee, San Francisco Section, American Society of Civil Engineers. Pacific Gas and Electric Company, San Francisco, CA.

Nelson, N.C.
1909 *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology 7(4):309-356. Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964)

Nichols, Donald R., and Nancy A. Wright
1971 Preliminary Map of Historic Margins of Marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map. U.S. Department of the Interior, Geological Survey in cooperation with the U.S. Department of Housing and Urban Development, Washington, D.C.

Postel, Mitchell P.
1994 *San Mateo, A Centennial History.* Scottwall Associates, San Francisco, CA.

San Mateo County Historic Resources Advisory Board
1984 San Mateo County: Its History and Heritage. Second Edition. Division of Planning and Development Department of Environmental Management.

San Mateo County Planning and Development Department
n.d. "Historical and Archaeological Resources, Section 5" from the *San Mateo CountyGeneral Plan*.

State of California Department of Parks and Recreation
1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Department of Parks and Recreation and Office of Historic Preservation
1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation **
2012 *Historic Properties Directory*. Listing by City (through April 2012). State of California Office of Historic Preservation, Sacramento.

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

Tribal Data Not Available

Tribal data is not available as of October 2017. Please send comments and updated information to EnvReview@hud.gov.

Close

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4/15/2019

AEM CONSULTING
Planning, Public Policy & Environmental Studies

April 5, 2019

Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
VIA EMAIL: NAHC@nahc.ca.gov

Dear NAHC Representative:

Our firm is conducting a cultural resources evaluation for redevelopment project in Menlo Park, San Mateo County, California. We are seeking information from the Native American Heritage Commission regarding possible sacred lands and other cultural sites within the project area. We would also like to obtain a list of individuals whom it would be appropriate to contact regarding this project.

- County: San Mateo County
- USGS Map: PALO ALTO 7.5' Quadrangle
- Township: T – 5 S
- Range: R – 3 W
- Section: 23

The project will be funded in part with federal funding from Project-Based Section 8 Voucher program of U.S. HUD, as administered by the County of San Mateo. A brief description follows.

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment.

Please contact me by phone or FAX at (707) 523-3710, or email at ccrake@aemconsulting.net if you have any questions or need additional information. Thank you for your time and attention to this matter.

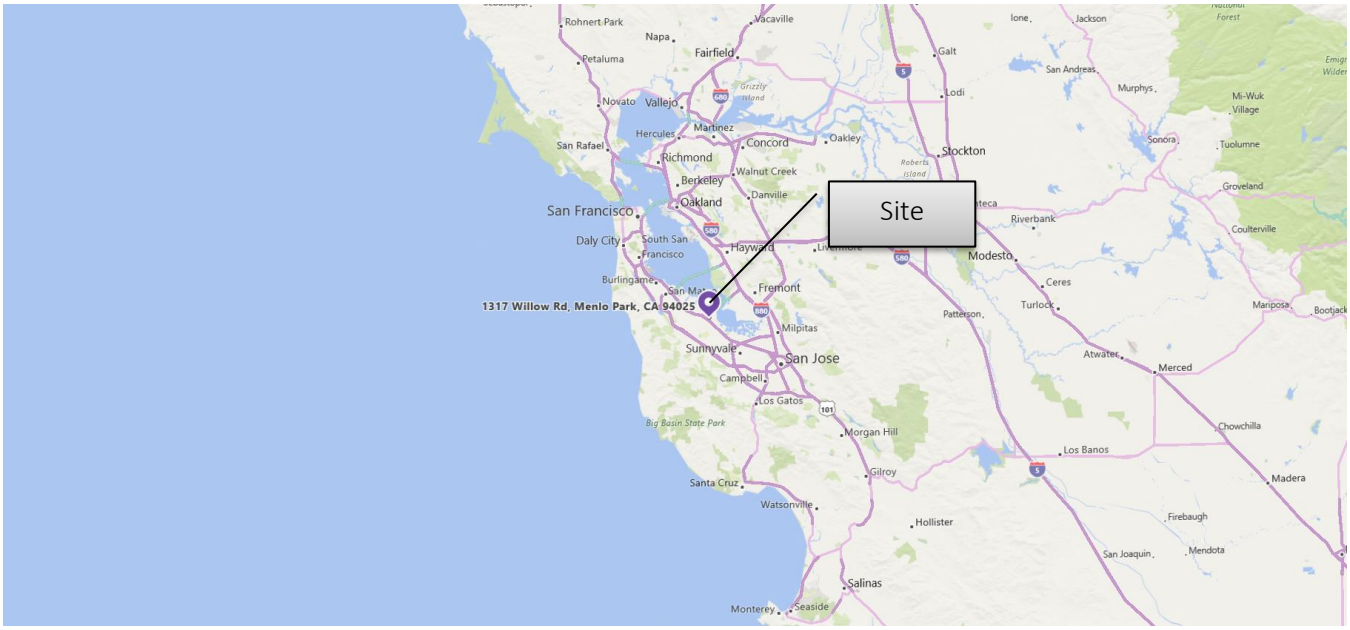
Sincerely,

Cinnamon Crake

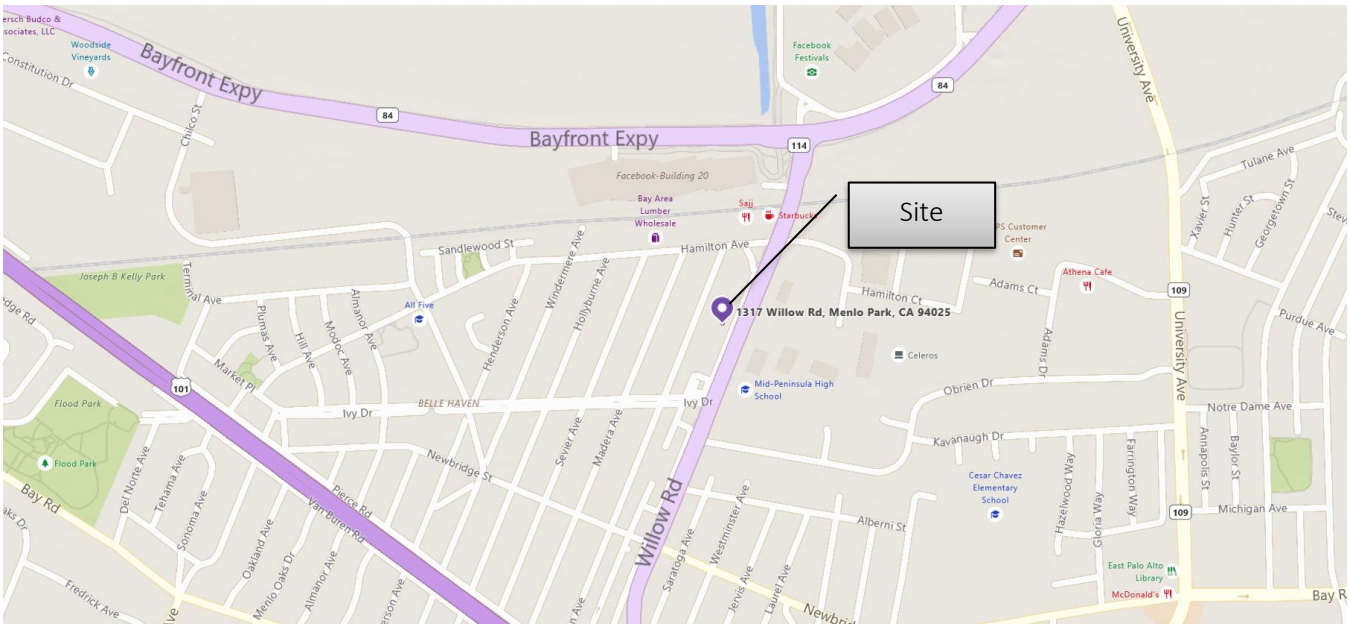
Cinnamon Crake, Associate

GATEWAY FAMILY HOUSING

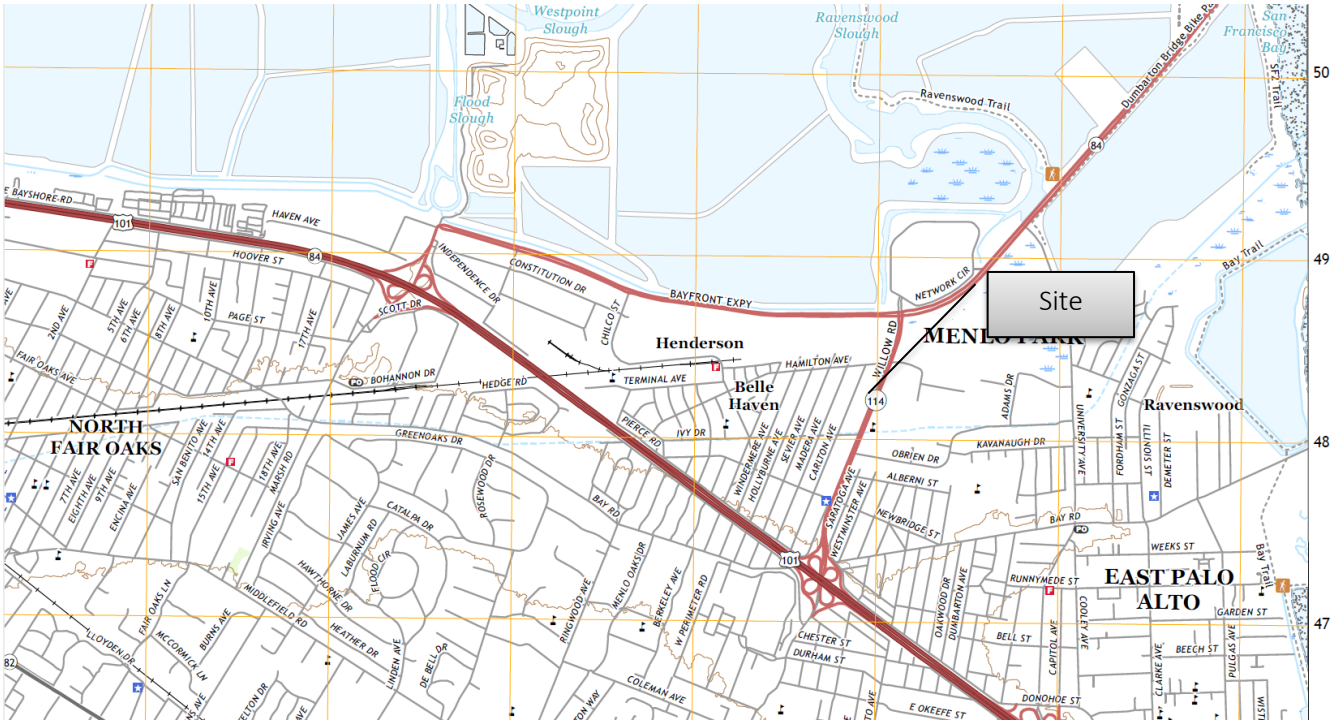
1317 Willow Road, Menlo Park, San Mateo County, CA 94025



Map 1 Region



Map 2 Detail



Map 3 U.S.G.S. Map

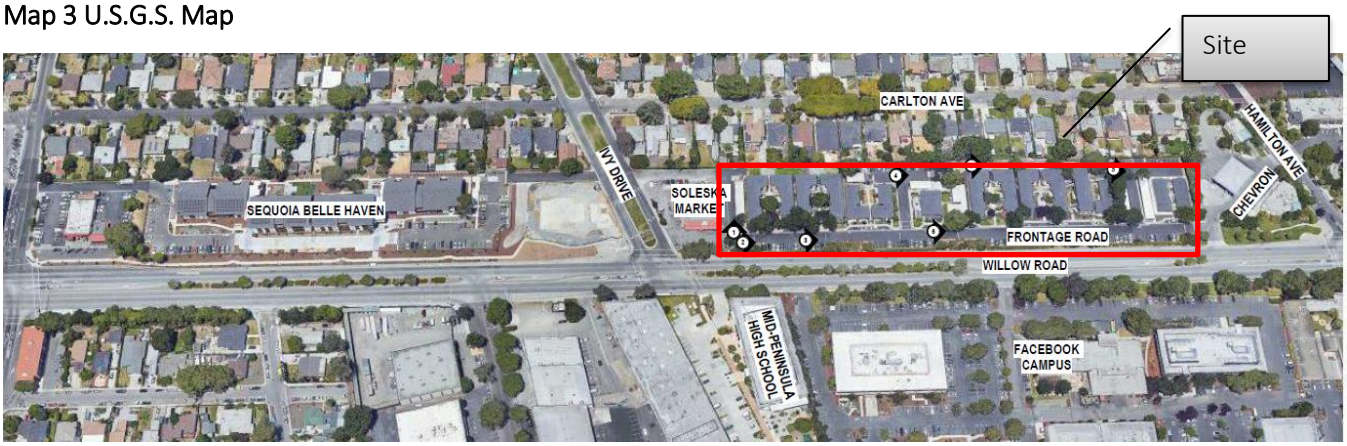


Figure 1 Aerial view

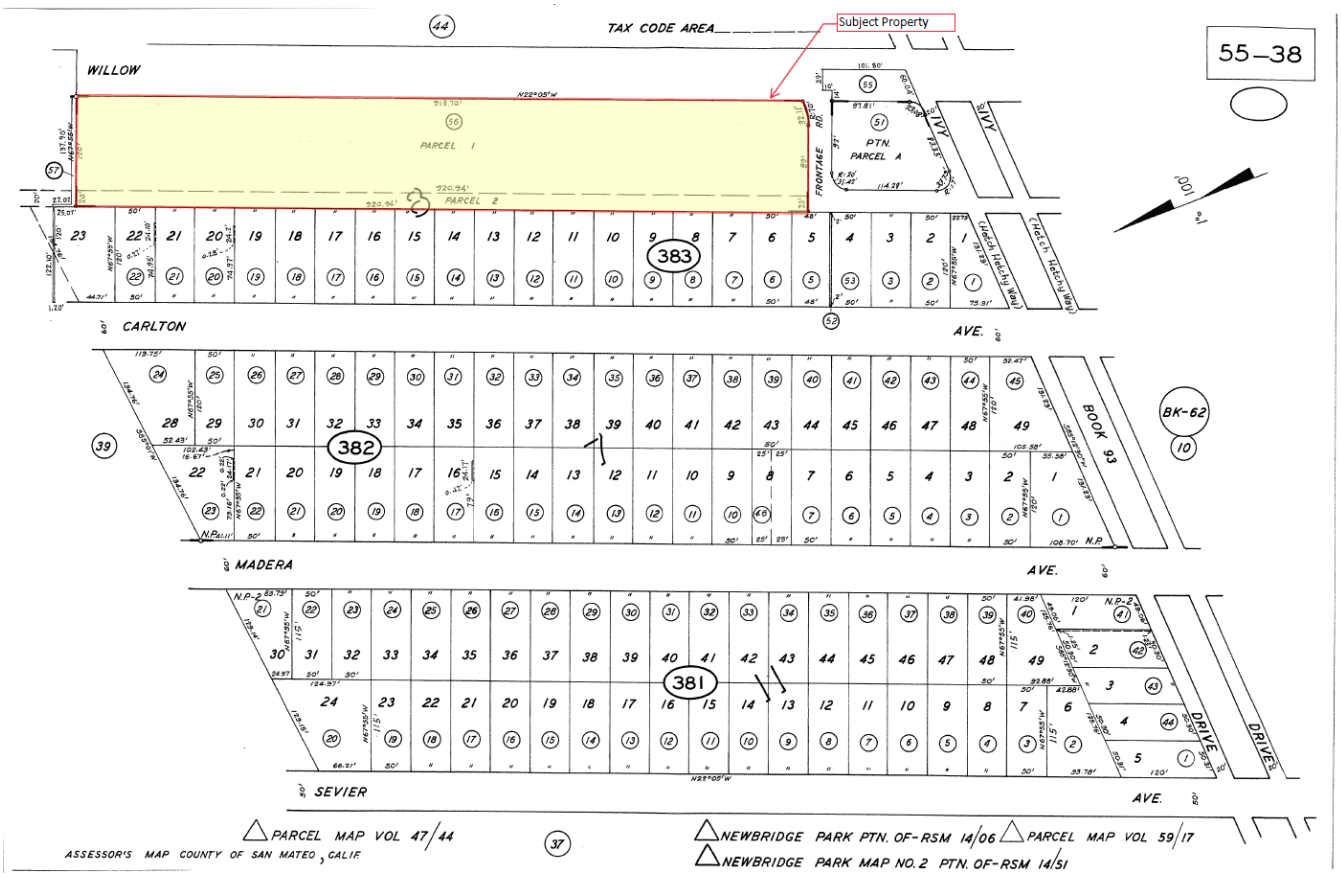


Figure 2 Assessor Parcel Map

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

April 8, 2019

Cinnamon Crake
AEM Consulting

VIA Email to: ccrake@aemconsulting.net

RE: **Gateway Family Housing Project**, City of Menlo Park; Palo Alto USGS Quadrangle, San Mateo County, California.

Dear Ms. Crake:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative however the area is sensitive for cultural resources. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Mateo County
4/8/2019

Amah MutsunTribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org

Costanoan
Northern Valley
Yokut

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA, 91766
Phone: (909) 629 - 6081
Fax: (909) 524-8041
rumsen@aol.com

Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyon.org

Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

Costanoan

The Ohlone Indian Tribe
Andrew Galvan,
P.O. Box 3388
Fremont, CA, 94539
Phone: (510) 882 - 0527
Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Ohlone
Patwin
Plains Miwok

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Gateway Family Housing Project, San Mateo County.

PUBLIC NOTICE OF PREPARATION OF A PROJECT-SPECIFIC PROGRAMMATIC AGREEMENT FOR HISTORIC PRESERVATION

October 8, 2019

County of San Mateo, Department of Housing
264 Harbor Blvd., Building A
Belmont, CA 94002-4017

The County of San Mateo, Department of Housing hereby invites interested persons to participate in the development of a Programmatic Agreement between the County of San Mateo and the California State Historic Preservation Officer (PA) in order to address potential discovery of buried archaeological resources during the redevelopment of an affordable housing site. The proposed project-specific programmatic agreement relates to the Gateway Family Housing project (Project) that is subject to environmental review under the National Environmental Policy Act and its HUD implementing regulations at 24 CFR Part 58, *Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities,* as well as Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, and its implementing regulations at 36 C.F.R. Part 800, *Protection of Historic and Cultural Properties*. The project qualifies as a Federal undertaking as the project is funded, in part, with on-going rental subsidies in the form of 82 Project-Based Section 8 Vouchers, as authorized by the United States Housing Act of 1937, Section 8 (c)(9), a program of U.S. HUD.

The Project proposes to redevelop the existing affordable housing located at 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140-unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A part time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room. The existing frontage easement will be abandoned. The target demographic is low-income families and 100% of the housing units in the Project will be affordable . The total project cost is estimated to be $12,000,000.

An *Archaeological Site Sensitivity Study* determined that the prehistoric archaeological sensitivity of the project site is high, and that the historic archaeological sensitivity of the project site is low. Due to the potential for the project site to contain either surficial or buried prehistoric archaeological resources,

archaeological monitoring by a Secretary of Interior-qualified archaeologist will be provided during project-related earth-disturbing activities that have the potential to encounter archaeological resources.

A *Cultural Resources Management Plan* has been prepared that outlines the procedures to be followed should archaeological resources be encountered within the project site during archaeological monitoring, and includes a research design to follow in the event that potentially significant archaeological resources are discovered during excavation associated with the project.

The *Cultural Resources Management Plan* requirements will be codified in the project-specific Programmatic Agreement and allow the completion of the Section 106 process and review under the National Environmental Policy Act prior to taking any physical action at the site.

The County of San Mateo welcomes the consultation of interested parties and organizations for effective public participation in NEPA and Section 106 analyses, in an effort to achieve more informed decision-making and to promote cultural heritage and identity. In order to meet project timeframes, we request that you advise the County of San Mateo with your comments regarding the preliminary draft agreement no later than Wednesday, October 23, 2019.

Under separate notice, the County of San Mateo has requested comments on the draft programmatic agreement from the Advisory Council on Historic Preservation, the California State Historic Preservation Office, and Federally recognized American Indian Tribes. Please submit your written comments to Ying Sham, HCD Specialist II, County of San Mateo, Department of Housing, 264 Harbor Blvd., Building A, Belmont, CA 94002, or via email to ysham@smchousing.org .

San Mateo County Times
c/o Bay Area News Group
1730 S. El Camino Real, Suite 450
San Mateo, CA 94402
408-920-5332

2055766

SAN MATEO COUNTY
DEPT. OF HOUSING/ACCOUNTS PAYABLE
264 HARBOR BLVD., BLDG. A
BELMONT, CA 94002

PROOF OF PUBLICATION

FILE NO. S.Woods: Historic Preservation

In the matter of

San Mateo County Times

The undersigned deposes that he/she is the Public Notice Advertising Clerk of the SAN MATEO COUNTY TIMES, a newspaper of general circulation as defined by Government Code Section 6000, adjudicated as such by the Superior Court of the State of California, County of San Mateo (Order Nos. 55795 on September 21, 1951), which is published and circulated in said county and state daily (Sunday excepted).

The PUBLIC NOTICE

was published in every issue of the SAN MATEO COUNTY TIMES on the following date(s):

10/08/2019

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated: October 8, 2019

Public Notice Advertising Clerk

Legal No. **0006408862**

PUBLIC NOTICE OF PREPARATION OF A PROJECT-SPECIFIC PROGRAMMATIC AGREEMENT FOR HISTORIC PRESERVATION

County of San Mateo, Department of Housing
264 Harbor Blvd., Building A
Belmont, CA 94002-4017

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SMCT#6408862; October 8,2019

LIST OF INTERESTED PARTIES
Gateway Family Housing
1345 Willow Road, Menlo Park, CA

*** Mailed: October 7, 2019 ***

U.S. EPA Headquarters Office
NEPA Compliance Division
Office of Federal Activities
401 "M" St., S.W.
Washington, D.C. 20460

AEM Consulting
422 Larkfield Center #104
Santa Rosa, CA 95403

U.S. EPA Region IX
Air & Toxics Division
75 Hawthorne St.
San Francisco, CA 94150

Jane Hicks
US Army Corps of Engineers
Attention: CESPN-CO-R
1455 Market Street, Floor 17
San Francisco, CA 94103-1360

Dan Buford, Chief, Coast Bay Delta Branch, Sacramento
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

Scott Wilson, Bay Delta Region
California Dept. of Fish & Wildlife
7329 Silverado Trail
Napa, CA 94558

San Francisco Bay RWQCB
1515 Clay Street, Suite 1400
Oakland, CA 94612

Jeff Griffin, Regional Director
Federal Emergency Management Agency
1111 Broadway, Suite 1200
Oakland, CA 94607

Julianne Polanco, State Historic Preservation Officer
Calif. Dept. of Parks & Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

HUD San Francisco Regional Office
One Sansome Street, Suite 1200
San Francisco, CA 94104-4430

ABAG
375 Beale Street, Suite 700
San Francisco, CA 94105

California Dept. of Water Resources
Attn: James Eto
1416 9th Street,
Sacramento, CA 95814

Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

San Francisco Bay Conservation & Development Commission
50 California Street
San Francisco, CA 94111

Kathleen Goforth, Mgr
Env Rev Off- U.S. EPA Region 9
75 Hawthorne Street
Mail Code ENF-4-2
San Francisco, CA 94105

County of San Mateo, Dept. of Housing
Attn: Ying Sham
264 Harbor Blvd., Bldg A
Belmont, CA 94002

MidPen Housing Corporation
Attn: Nevada Merriman
303 Vintage Park Drive, Suite 250
Foster City, CA 94404

MidPen Housing Corporation
Attn: Neomi Paez
303 Vintage Park Drive, Suite 250
Foster City, CA 94404

MidPen Housing Corporation
Attn: Nesreen Kawar
303 Vintage Park Drive, Suite 250
Foster City, CA 94404

County of San Mateo, Dept. of Housing
Attn: Ken Cole
264 Harbor Blvd., Bldg A
Belmont, CA 94002

Menlo Gateway Inc or Occupant
1317 Willow Road
Menlo Park, CA 94025

Menlo Gateway Inc.
c/o California Housing Finance
PO Box 167928
Irving, TX 75016

Sina Miri
1320 Carlton Avenue
Menlo Park, CA 94025

Daniel Percival
1324 Carlton Avenue
Menlo Park, CA 94025

Andrew Stark or Occupant
1328 Carlton Avenue
Menlo Park, CA 94025

Andrew Stark
823 Lewis Avenue
Sunnyvale, CA 94086

Angelica Orosco
1332 Carlton Avenue
Menlo Park, CA 94025

Afework Tewolde or Occupant
1334 Carlton Avenue
Menlo Park, CA 94025

Afework Tewolde
1040 Henderson Avenue
Menlo Park, CA 94025

Marcos Henriquez
1338 Carlton Avenue
Menlo Park, CA 94025

Maria Salas
1352 Carlton Avenue
Menlo Park, CA 94025

Mehdi Kaci
1356 Carlton Avenue
Menlo Park, CA 94025

Honey Finley or Occupant
1360 Carlton Avenue
Menlo Park, CA 94025

Honey Finley
621 N Circle Drive
Diamond Springs, CA 95619

Uriel Valdivias
1364 Carlton Avenue
Menlo Park, CA 94025

Alfred Dendy or Occupant
1368 Carlton Avenue
Menlo Park, CA 94025

Alfred Dendy
1 Montwood Way
Oakland, CA 94605

Vicente Chavez or Occupant
1372 Carlton Avenue
Menlo Park, CA 94025

Vicente Chavez
1380 Carlton Avenue
Menlo Park, CA 94025

Adell Shepard Sr
1376 Carlton Avenue
Menlo Park, CA 94025

Donald Foreman
1384 Carlton Avenue
Menlo Park, CA 94025

Jesus Garnica
1388 Carlton Avenue
Menlo Park, CA 94025

Ning Zhang or Occupant
1392 Carlton Avenue
Menlo Park, CA 94025

Ning Zhang
11500 Charsan Lane
Cupertino, CA 95014

Yanfeng Wang
1394 Carlton Avenue
Menlo Park, CA 94025

Tzjeng Yang
1396 Carlton Avenue
Menlo Park, CA 94025

Chevron USA Inc. or Occupant
1399 Willow Road
Menlo Park, CA 94025

Chevron USA Inc
c/o Property Tax Dept.
PO Box 1392
Bakersfield, CA 93302

Peninsula Innovation Partners LLC or Occupant
1380 Willow Road
Menlo Park, CA 94025

Peninsula Innovation Partners LLC
1 Hacker Way
Menlo Park, CA 94025

Peninsula Innovation Partners LLC or Occupant
1370 Willow Road
Menlo Park, CA 94025

Peninsula Innovation Partners LLC or Occupant
1350 Willow Road
Menlo Park, CA 94025

Mid Pen Education Ctr Inc
1340 Willow Road
Menlo Park, CA 94025

Dora Caballero
1305 Willow Road
Menlo Park, CA 94025

EVANS & DE SHAZO
ARCHAEOLOGY HISTORIC PRESERVATION

ARCHAEOLOGICAL SITE SENSITIVITY STUDY AND CULTURAL RESOURCE MONITORING PLAN FOR THE PROPOSED GATEWAY FAMILY HOUSING REDEVELOPMENT PROJECT, MENLO PARK, SAN MATEO COUNTY, CALIFORNIA

PREPARED FOR:

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MANAGEMENT SUMMARY

Evans & De Shazo Inc. (EDS) completed an archaeological site sensitivity study and based on the results of the study developed a Cultural Resources Monitoring Plan (CRMP) for the proposed Gateway Family Housing Redevelopment Project (Project) located within a 2.6-acre site located at 1345 Willow Road, Menlo Park, San Mateo County, California (Project Area) that currently contains 82 multifamily units in 17 buildings and associated infrastructure. The scope of the archaeological site sensitivity study was to assess the potential for historic or prehistoric period archaeological resources to be present within the Project Area, and the scope of the CRMP is to outline procedures that will allow for the identification, evaluation, treatment, and protection of archaeological resources that may be encountered by ground disturbing activities associated with the Project. The CRMP will serve as an agreement document that will govern the actions to be taken if historic properties are discovered during the implementation of the Project.

The archaeological site sensitivity study determined that the prehistoric archaeological sensitivity of the Project Area is high, and that the historic archaeological sensitivity of the Project Area is low. Due to the potential for the Project Area to contain either surficial or buried prehistoric archaeological resources, archaeological monitoring by a Secretary of Interior-qualified archaeologist is during Project-related earth-disturbing activities that have the potential to encounter archaeological resources.

The CRMP outlines the procedures to be followed should archaeological resources be encountered within the Project Area during archaeological monitoring, and includes a research design to follow in the event that potentially significant archaeological resources are discovered during excavation associated with the Project.

The archaeological site sensitivity study and CRMP presented herein includes the following sections:

- A description of the Project and its location;
- A regulatory setting;
- A natural and cultural overview;
- A record search and review that includes a summary of known archaeological resources in the area, and an archaeological site sensitivity analysis;
- A research design; and,
- A monitoring plan to be followed during all ground disturbing activities, including routine monitoring protocols, discovery plans including treatment plans for discovery of any human remains in accordance with the state law, and curation and reporting requirements.

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1.0 INTRODUCTION

In April 2019, AEM Consulting prepared a Historic & Cultural Resources Evaluation for the Gateway Family Housing project that was provided to the State Historic Preservation Officer (SHPO) for review. The SHPO concurred with the delineation of the Area of Potential Effect (APE), which included the Project Area and 25 surrounding properties (26 properties total), as well as the finding that the built-environment resources within the APE are not eligible for listing in the National Register of Historic Places (NRHP); however, the SHPO recommended conducting an archaeological field study, or the preparation of a programmatic agreement document for the undertaking.

EDS has prepared this archaeological site sensitivity study and CRMP at the request of AEM Consulting for the proposed Gateway Family Housing Redevelopment project to assess the potential for historic or prehistoric period archaeological resources to be present within the Project Area, and to outline procedures to allow for the identification, evaluation, treatment and protection of significant archaeological resources that may be unearthed during Project-related earth-disturbing activities within the Project Area. The archaeological site sensitivity study and CRMP was prepared to serve as the programmatic agreement document for the undertaking.

The archaeological site sensitivity study and CRMP identifies the potential for archaeological resources to be discovered within the Project Area and outlines the mitigation measures that will be followed to ensure that adverse impacts to historic properties resulting from Project-related earth-disturbing activities within the Project Area are identified and mitigated following the Secretary of Interior's Standards for Archaeological Documentation.

1.1 PROJECT DESCRIPTION

The Project Area currently contains 82 multifamily units in 17 buildings. Mid-Pen Housing is proposing to temporarily relocate the current occupants of the units, demolish the existing buildings, abandon an existing easement at the site frontage, and construct a new 140-unit affordable housing project with onsite parking, community room and amenities. The unit mix will include 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. The Project will utilize funds from the U.S. Department of Urban Development (HUD), and is therefore subject to review under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800.

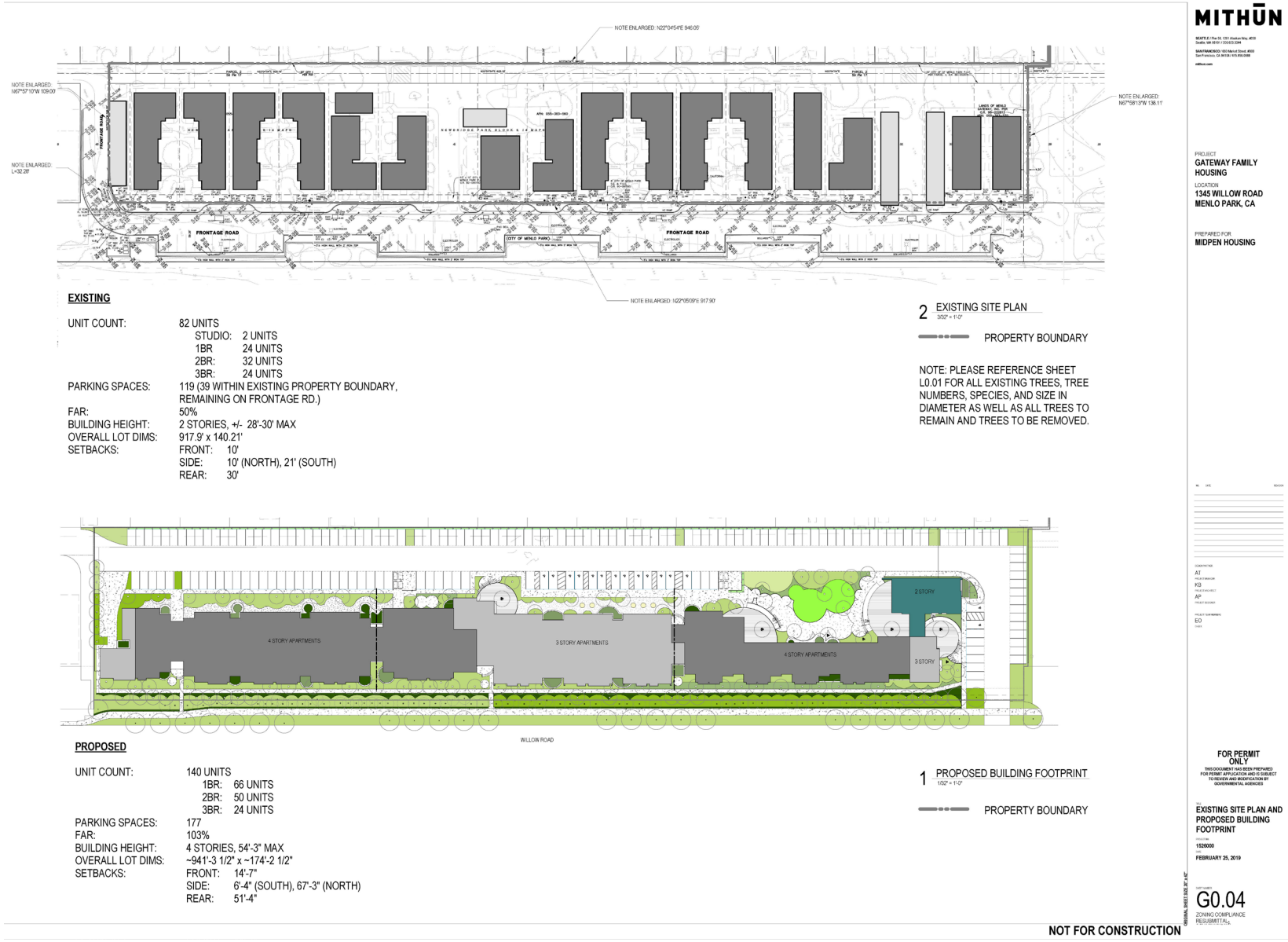

Figure 1: Existing Site Plan and Proposed Building Footprint. Prepared by Mithūn, 2/25/2019.

1.2 PROJECT LOCATION

The Project Area is located at 1345 Willow Road, Menlo Park, San Mateo County, California within Assessor Parcel Number (APN) 055-383-560 (Project Area) that is 2.6-acres in size (Figure 2). The Project Area is bound on the north by the Chevron Station, on the east by Willow Road, also known as State Route 114, which is an arterial roadway connecting Highway 101 and the Bayshore Freeway, on the south by Soleska Market and Ivy Drive, and on the east by single-family homes.

On the USGS 7.5' Palo Alto, California quadrangle (1991), the Project Area lies in Township 5 South, Range 3 West, Mount Diablo Meridian (Figure 3). The Universal Transverse Mercator (UTM) grid coordinates at the approximate center of the Project Area are: 4148238 meters North and 574933 meters East, Zone 10.

1.3 AREA OF POTENTIAL EFFECT

The regulations implementing the Section 106 review process requires that an APE be defined for the Project (36 CFR 800.16(d)) that takes into consideration direct and indirect effects to historic properties. The APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking".

The area within which the Project has the potential to directly affect historic properties includes the 2.6-acre Project Area (Figure 4). Indirect affects to historic properties were also considered as part of the Historic & Cultural Resources Evaluation prepared by AEM Consulting in April 2019 that included 25 surrounding properties, none of which were found to contain historic properties that could be indirectly affected by the proposed Project.

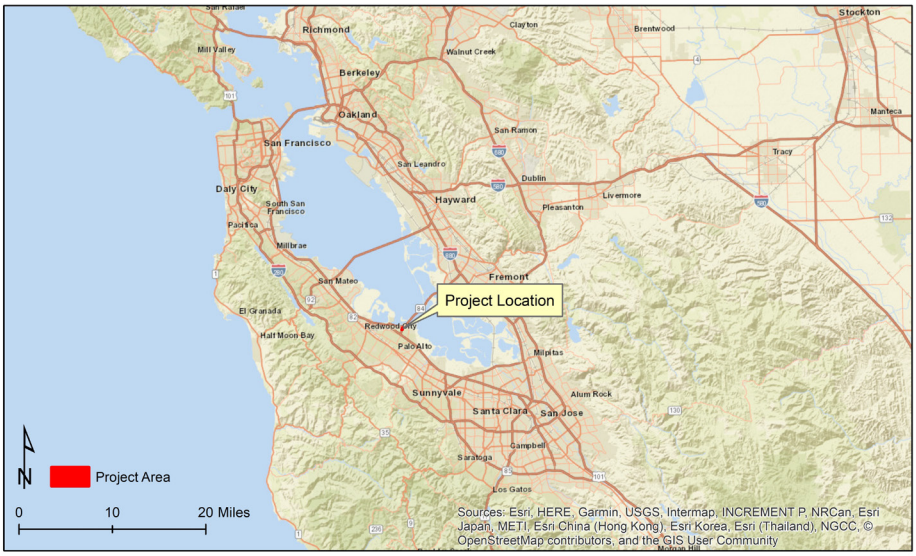

Figure 2: Project vicinity.

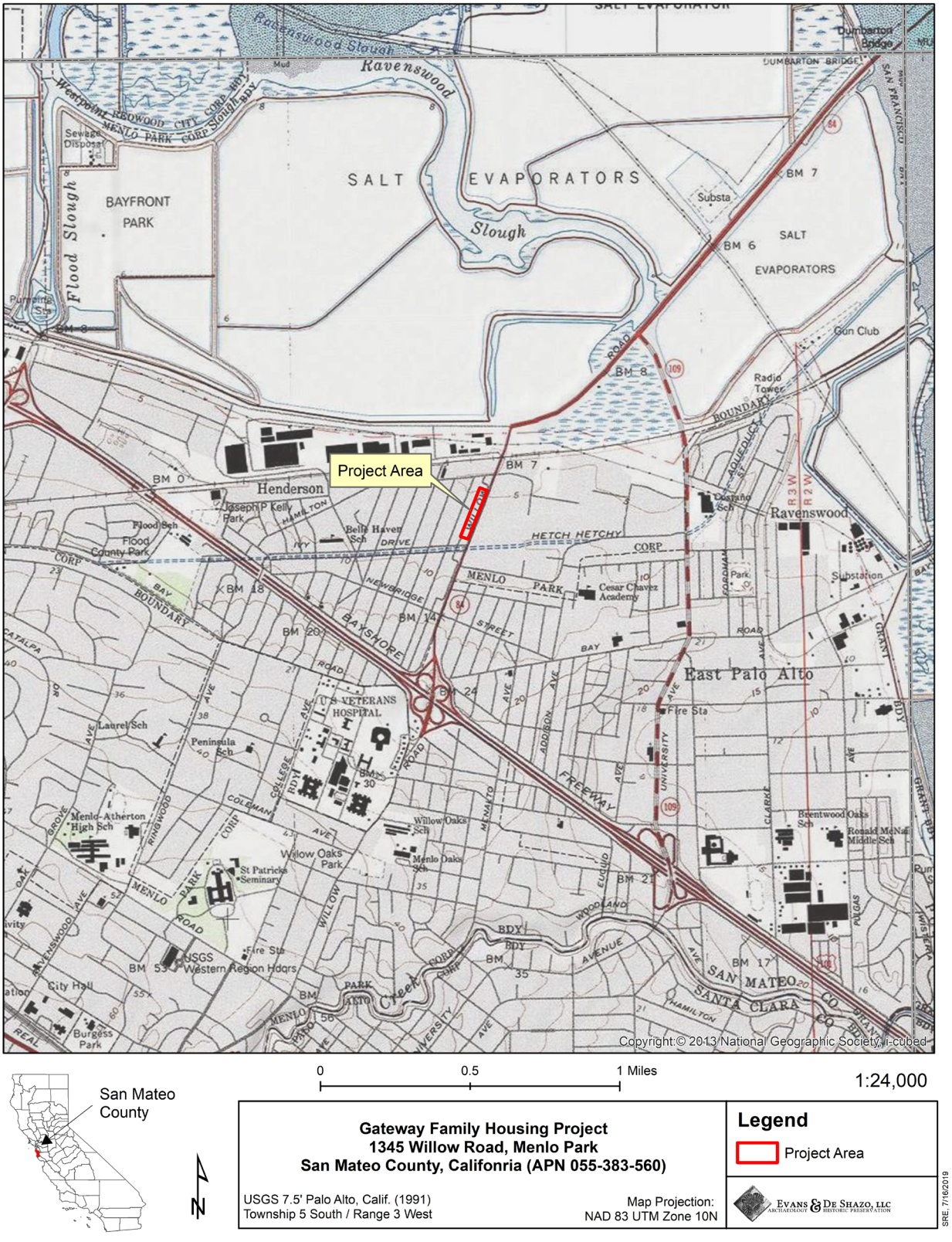

Figure 3: Project Area location map.

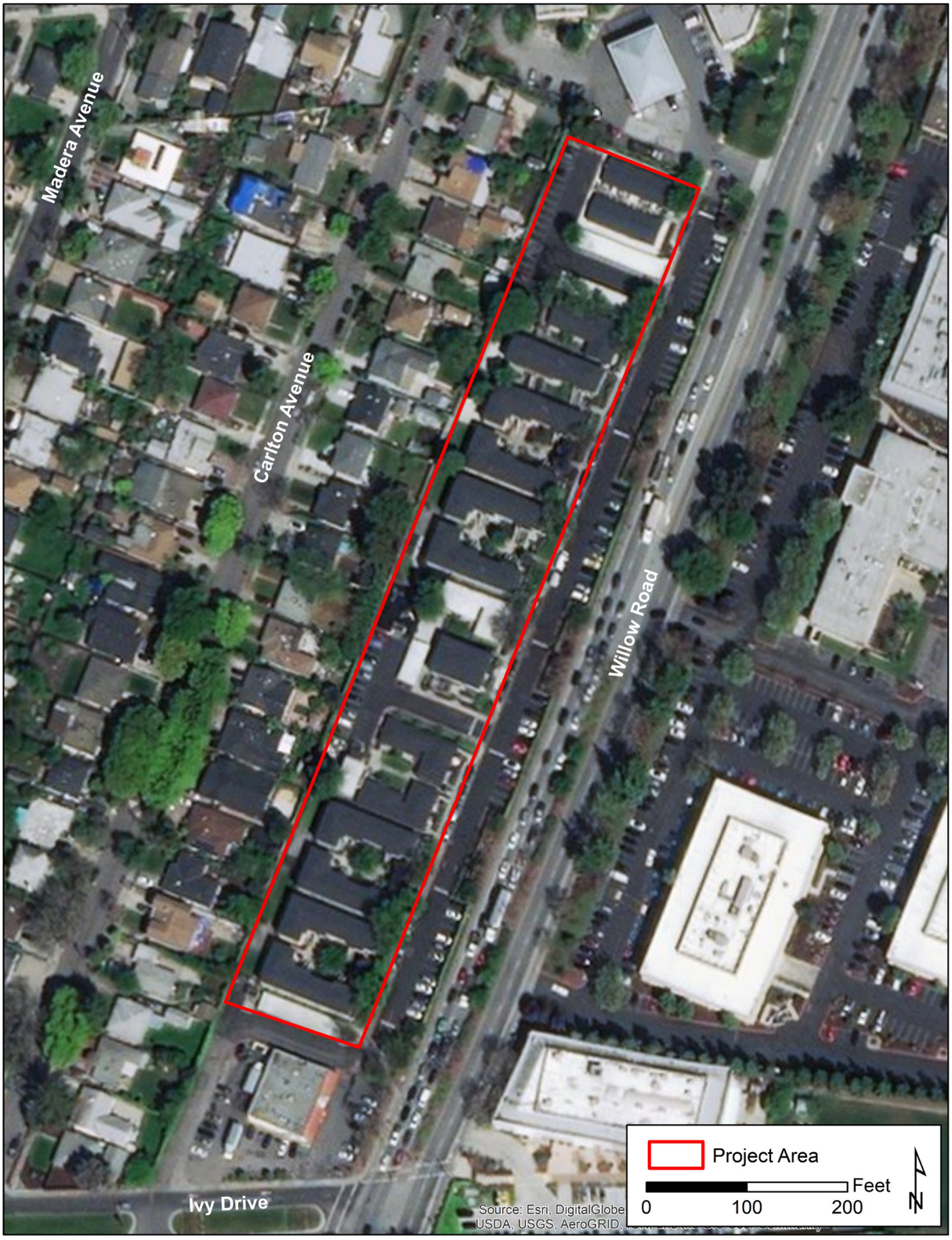

Figure 4: Aerial view of Project Area.

2.0 REGULATORY SETTING

Federal, state and local laws, ordinances, regulations and statures protect cultural resources. Federal laws and regulations related to significant cultural resources would apply only if the project is wholly or partially funded, either direct or indirectly by a federal agency or federal permits or licenses are involved, or if project impacts occur on federally owned or managed lands. The proposed Project is considered an undertaking subject to NEPA and Section 106 of the NHPA review due to financial assistance being provided by HUD for the Project. These regulations, as they pertain to cultural resources, are outlined below.

2.1 THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA [42 U.S.C. 4321 et seq.] establishes national environmental policies and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the Federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

The term "cultural resources" is not defined in NEPA. NEPA address the "human" — social and cultural — aspects of the environment. Culturally valued aspects of the environment generally include historic properties (as defined by the NHPA), sacred sites, archaeological sites not eligible for the NRHP and archaeological collections. The cultural use of natural resources and such "intangible" socio-cultural attributes as social cohesion, social institutions, life ways, religious practices, and other cultural institutions are typically evaluated under the "social impact" category. This HPS will identify the potential adverse and beneficial effects on historic and cultural resources (i.e. historic properties), sacred sites and archaeological sites not eligible for the NRHP that result from implementation of the Project.

2.2 NATIONAL HISTORIC PRESERVATION ACT (NHPA) - SECTION 106

Section 106 of the NHPA pertains to Federal “undertakings”. A Federal undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. The NHPA directs federal agencies to take into account (through identification, recordation and mitigation) the effects of proposed activities on historic properties and give the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Historic properties are properties that are included in the NRHP or that meet the criteria for the National Register.

2.2.1 National Register of Historic Places

Historic properties are districts, sites, buildings, structures, and objects listed or found eligible for listing in the NRHP. Unlisted properties are evaluated against the National Register criteria to determine eligibility for listing, in consultation with the SHPO or Tribal Historic Preservation Officer (THPO) and any Native American Tribe that may attach religious or cultural importance to them.

The five property types are:

- **Building**: A structure created principally to shelter or assist in carrying out any form of human activity. A "building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.
- **Structure**: A construction made for a functional purpose rather than creating human shelter. Examples include mines, bridges, and tunnels.
- **Object**: Construction primarily artistic in nature or relatively small in scale and simply constructed. It may be movable by nature or design or made for a specific setting or environment. Objects should be in a setting appropriate to their significant historic use or character. Examples include fountains, monuments, maritime resources, sculptures and boundary markers.
- **Site**: The location of a significant event. A prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event and if no buildings, structures, or objects marked it at that time. Examples include trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs.
- **District**: Unified geographic entities which contain a concentration of historic buildings, structures, or sites united historically, culturally, or architecturally.

In order to be included or qualify for the National Register, a building, structure, object, site or district must possess significance in American history, architecture, archaeology, engineering or culture, and must be associated with an important historic context and retain historic integrity of those features necessary to convey its significance. The resource should possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet any of the following criteria:

A. Is associated with events that have made a significant contribution to the broad patterns of our history; or

B. Is associated with the lives of persons important in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or,

D. Has yielded, or may be likely to yield, information important in prehistory or history.

3.0 NATURAL AND CULTURAL OVERVIEW

This section describes the natural and cultural setting of the Project Area and vicinity. The natural setting focuses on climate, topography, geology, and soil of the current and past environments. The cultural setting considers the prehistoric, Native American ethnographic and historic contexts associated with the Project Area. These contexts provide the basis for understanding the nature of historic properties and other cultural resources located within the Project Area.

3.1 ENVIRONMETNAL SETTING

The Project Area is located in the City of Menlo Park, which is a densely populated urban environment at the eastern edge of San Mateo County that has an estimated population of approximately 34,500 people. Located in the southeastern region of the San Francisco Bay Area, Menlo Park borders the cities of East Palo Alto, Palo Alto, and Stanford to the south, Atherton, North Fair Oaks, and Redwood City to the west, and the San Francisco Bay on the north and east.

The City of Menlo Park has a warm and temperate climate characterized by cool winters and moderate summers. According to the Western Regional Climate Center, Menlo Park's average annual temperatures range from about 71 degrees Fahrenheit (F) to 47.1 degrees F. Annual rainfall averages about 19.16 inches per year, with most rainfall occurring between October and April.

The Project Area is situated within a topographically flat area at the eastern edge of Menlo Park at approximately five feet above mean sea level (amsl), and is bordered on the north, west and south by single family houses, and on the east by Willow Road and the Facebook campus. The Hetch Hetchy aqueduct is located approximately 150 feet to the south of the Project Area. The Project Area is also located approximately 1.6 miles south of the San Francisco Bay; however, prior to development of the salt evaporation ponds along the southwestern bay shore, the reclamation of marshlands, and subsequent urban development, the Project Area was situated approximately 850 feet south of the historical tidal marsh and bay lands boundary. The nearest creek is San Francisquito Creek located 1.3 miles to the south (Figure 5).

According to the Geologic Map and Map Database of the Palo Alto 30' x 60' Quadrangle (Brabb et al 2000), the Project Area is situated on a landform that consist of Holocene-age (post 11,700 years before the present) basin deposit (Unit: Qhb) consisting of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to the bay mud, and also contains unconsolidated, locally organic, plastic silt and silty clay deposited in very flat valley floors (Brabb et al. 2000). According to the U.S. Department of Agricultura (USDA) Natural resources Conservation Services (NRCS) soil survey, the soil within the Project Area includes urban land-Orthents, reclaimed complex, 0 to 2 percent slopes, which is soil that occurs on tidal flats and has a variable surface profile (H1 – 0 to 40 inches) followed by silty clay (H2 – 40 to 60 inches) (USDA 2019).

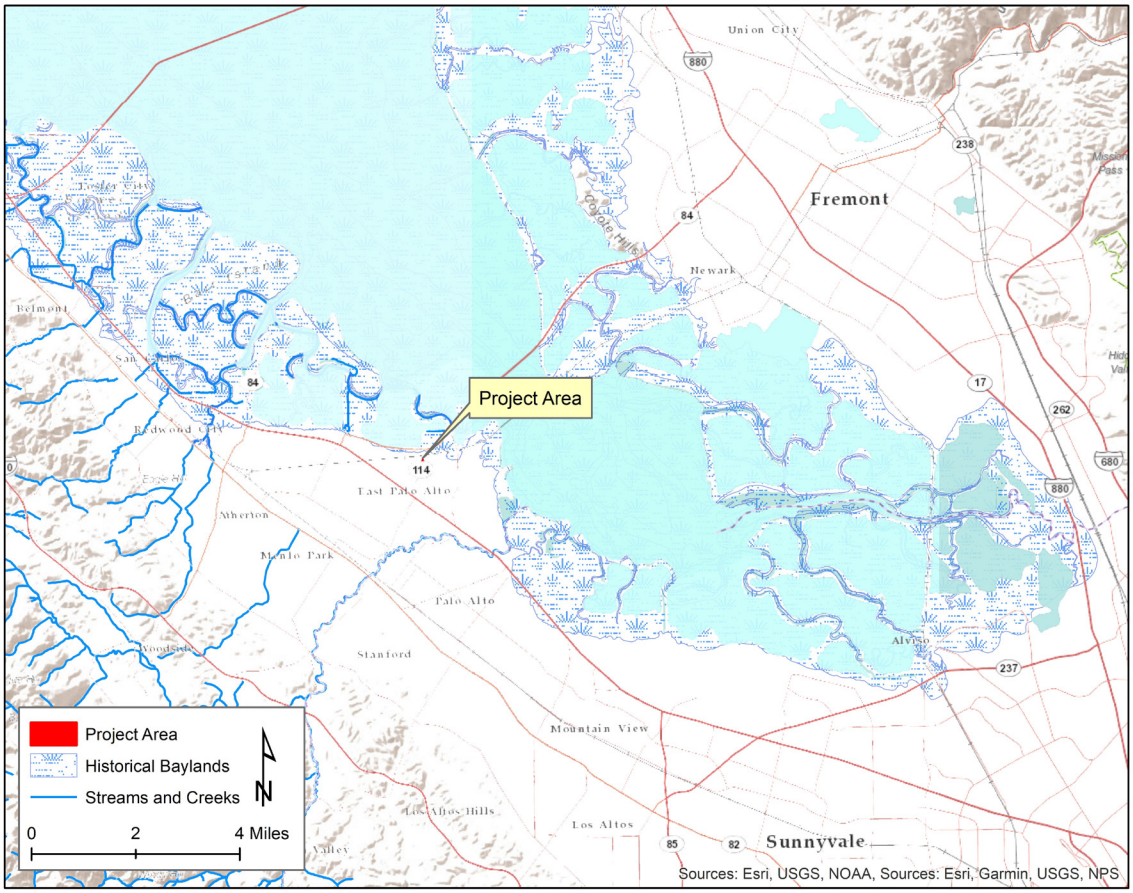

Figure 5: Environmental setting of the Project Area.

3.1.1 Paleo-environmental Setting

The paleo-environmental setting describes changes that have occurred in California's climate, vegetation and landscapes since the terminal Pleistocene. During the Terminal Pleistocene (13,500 - 11,700 cal BP[1]) there was a dramatic shift in vegetation as the climate became warmer compared to the previous period and temperate taxa such as alder, Douglas fir, oak and tanoak appeared. This was immediately followed by a major cooling trend, known as the Younger Dryas at about ca. 12,800 and 11,500 BP, at which time oak woodland and chaparral began to replace coniferous forest species. Also, during this time many of the large herbivores like mammoth, bison, ground sloth, horse and camel, as well as many large carnivores became extinct.

The San Francisco Bay formed after the onset of the Holocene (post 11,700 cal BP) due to a global warming trend that led to glacial melt and a global rise in sea level (Walker et al. 2009). During the Pleistocene, when it was colder, and more water was locked up in ice, the ocean level was lower than current levels and the California shoreline was located much farther to the west than it is today. At the

[1] cal BP denotes calibrated years before the present, with "present" defined as 1950.

time, the San Francisco Bay did not exist, and the Sacramento and San Joaquin Rivers converged before cutting through the Diablo range and the Golden Gate before draining into the Pacific Ocean near the Farallones Islands (Milliman and Emery 1968).

In the Early Holocene (11,700 – 8200 cal BP) cooler and drier conditions continued, but as temperatures rapidly increased, redwood and chemise chaparral taxa expanded, and pines and other conifers diminished. During this time, the ocean waters reached the Golden Gate and began filling the San Francisco Bay (Figure 6). The rise in the water level was rapid at first, but slowed after about 5,000 BP (Parsons 2003). The rising of the bay caused many of the rivers and streams that empty into the bay to aggrade their valleys by depositing sediment, gradually building up the ground surface and burying former surfaces. This process also buried most evidence of human occupation around the San Francisco Bay shoreline prior to this time (Parsons 2003).

The Middle Holocene (8200 – 4200 cal BP) was characterized by lower precipitation and greater temperatures, with warm and dry summers and increased seasonability (Adam and West 1983). As a result, pines, herbs and oak increased while redwood and cedar declined and retreated. Oaks expanded their overall range and moved upslope. The sea level stabilized and rich tidal marshes and extensive mudflats formed around the San Francisco Bay margin (Pestrong 1972).

In the Late Holocene (post 4200 cal BP) climatic conditions were cooler and dryer, but there were frequent shifts from cold to warm and enhanced ENSO[2] cycles that resulted in increased fluvial discharge, lower salinity levels and the formation of new marshes in the San Francisco Bay circa 3800 – 2450 BP (Goman et al. 2008; Starratt and Barron 2010). Beginning about 4,000 BP there was a rise in conifer-dominated assemblages and a decrease in oaks, due to an increase in moisture, but this trend reversed between about 1,300 to 700 BP due to an onset of warmer, dryer conditions, which characterized the Medieval Climatic Anomaly (MCA) that lasted from about 1150 - 600 BP. The MCA was marked by two severe drought periods separated by a period of greater precipitation (Schwitalla 2013), and was followed by the Little Ice Age (ca. 650-150 BP) that featured cool wet conditions (Schwitalla 2013), cooler sea surface temperatures (Hendy 2010), and an influx of sediment into the San Francisco Bay (Malamud-Roam and Ingram 2010). The extensive alluvial deposition that occurred during wet periods also buried archaeological sites that existed along the flood plains of creeks and rivers during this time (Lightfoot and Luby 2002).

In historic times (ca. 250 BP to present) the introduction of non-native plant species, the cessation of Native American land-management practices, including fire management, the onset of crop production and animal husbandry, industrialization, and urban growth and development have all contributed greatly to a changed landscape that no longer reflects the landscape inhabited by human populations that existed in prehistoric times.

[2] El Niño-Southern Oscillation (ENSO) is an irregularly periodic variation in winds and sea surface temperatures over the tropical eastern Pacific Ocean. The warming phase of the sea temperature is known as El Niño and the cooling phase as La Niña.

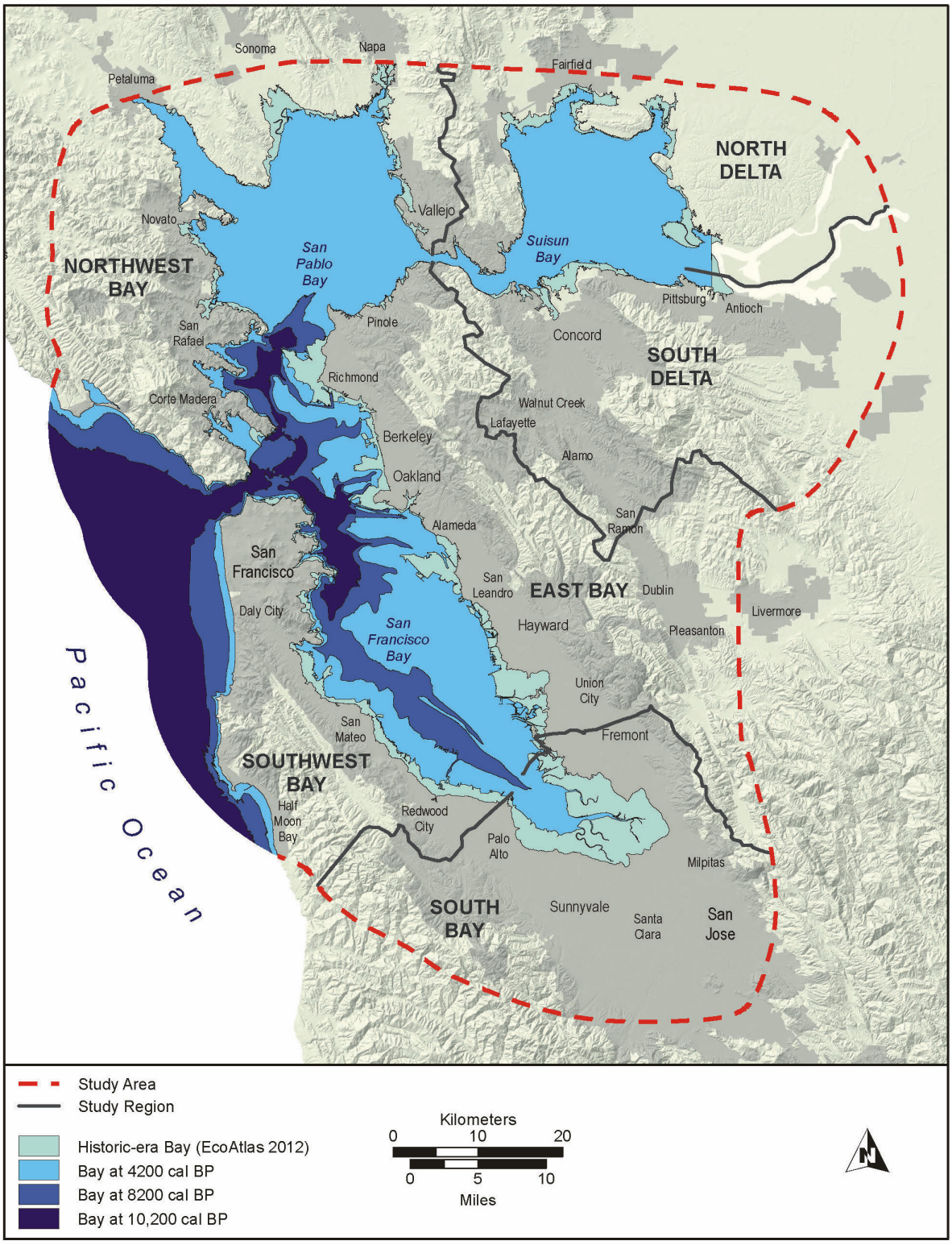

Figure 6: Evolution of the San Francisco Bay (after Meyer et al. 2013) (Byrd et al. 2017).

3.2 PREHISTORIC CULTURAL SETTING

The formation of the San Francisco Bay in the Middle Holocene allowed for dense populations to settle along the Bay Shore and neighboring areas because the freshwater marshes, salt marshes, mud flats and open waters of the San Francisco Bay were extremely productive in natural resources during prehistoric times (Lightfoot and Luby 2002). The marshlands and mudflats supported clams, mussels, oysters, crabs, and several fish species, and the open water supported green and white sturgeon, Chinook and Coho salmon, bat rays, thresher and leopard sharks, surf perch, jack smelt and marine mammals, such as sea otters, harbor seals, and sea lions. There were also numerous migratory water birds and shorebirds present, like ducks, geese, cormorants, loons and grebes (Lightfoot and Luby 2002). The surrounding terrestrial landscape contained extensive grassland and oak woodland that supported a variety of plant and animal resources. From these areas, Native Americans gathered a variety of nuts, seeds, berries, greens and tubers, and hunted large terrestrial animals like deer, elk and pronghorn antelope, as well as smaller fauna like jackrabbit, brush rabbit, squirrel, wood rat and quail (Lightfoot and Luby 2002; Moratto 1984). Historically, the Project Area was situated approximately 850 feet south of the historical tidal marsh and bay lands boundary and consisted of grassland-bay marsh ecotones that would have been favorable for human occupation.

3.2.1 Central California Taxonomic System (CCTS)

The Central California Taxonomic System (CCTS) is a scheme that chronologically classifies archaeological manifestations observed in central California. The CCTS is a sequence represented by broad spatial and temporal levels. It was initially based on archaeological research conducted in the Delta and Lower Sacramento Valley regions of California (Lillard et al. 1939; Lillard and Purves 1936; Heizer and Fenenga 1939), and was later expanded to include the Bay Area using information from earlier archaeological excavations at the Emeryville Shellmound (CA-ALA-309) in Alameda County, as well as the Ellis Landing Shellmound (CA-CCO-295) and Fernandez Site (CA-CCO-295) in Contra Costa County (Beardsley 1954). B.A. Gerow and others criticized the CCTS for being too rigid in its chronological sequence and for failing to separate cultural and temporal dimensions (Gerow 1954, 1974; Gerow with Force 1968). To address this problem, Fredrickson (1973, 1994) proposed a new taxonomic system for the North Coast Ranges, the San Francisco Bay, including some interior Contra Costa sites, and the lower Sacramento Valley using a cultural sequence based on Patterns, Phases and Aspects[3]. Within the San Francisco Bay area, three main cultural patterns are recognized: Windmiller, Berkeley (Lower, Upper and Meganos Aspect) and Augustine. In the past, Archaeologists conducting work in the San Francisco Bay Area used the CCTS, but Archaeologists conducting work in the northern Bay Area tended to use Fredrickson's Archaic-Emergent temporal sequence. However, a hybrid classification has emerged for the San Francisco Bay Area that uses the Early-Middle-Late Period sequence of the CCTS and the pattern-aspect-phase cultural sequence

[3] Patterns are units of culture having similar economic and technical manifestations, mortuary patterns, concepts of wealth, and trade practices. Phases are cultural manifestations within a Pattern bounded by time and region. Aspects are cultural units bounded regionally, but not temporally (Fredrickson 1973, 1974).

developed by Fredrickson, but is anchored in time by two radiocarbon-based sequences known as Scheme D and Scheme D2 (Groza 2002; Groza et al. 2011; Milliken et al. 2007). The current Scheme D is based on stylistic temporal variations in well-dated and widely traded shell bead types (Groza et al. 2011).

The following summary is a cultural chronology for the San Francisco Bay-Delta region that is based on the hybrid classification system organized by geologic time segments that include the Terminal Pleistocene (13,500 – 11,700 cal BP), Early Holocene (11,700 – 8200 cal BP), Middle Holocene (8200 – 4200 can BP), and Late Holocene (post 4200 can BP). The Late Holocene is further divided into shorter time periods using the Late Holocene Scheme D chronological sequence for the San Francisco Bay Area (Table 1) that is divided into the following time periods: Early Period (4200–2550 cal BP), Early/Middle Transition Period (2550–2150 cal BP), Middle Period (2150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), Late Period (685–180 cal BP), and Historic/Mission period (180-115 cal BP).

Table 1. Late Holocene Scheme D Chorological Sequence for San Francisco Bay-Delta Area following Groza et al. 2011 (Byrd et al. 2017: 3-20, Table 3).

CAL BP	EXTENT (YEARS)	CALENDAR YEARS	DATING SCHEME D (GROZA ET AL. 2011)		CULTURAL PATTERN [c]
			TEMPORAL PERIODS [a]	ARRAY OF DIAGNOSTIC *OLIVELLA* BEAD TYPES [b]	
180–115	65	AD 1770–1835	Historic/Mission (H)	Needle drilled (H)	na
430–180	250	AD 1520–1770	Late 2 (L2)	Lipped (Class E)	Augustine
685–430	255	AD 1265–1520	Late 1 (L1)	Normal sequin (M1a) Pendant (M2) Callus cupped (K1) End-ground (B2)	
930–685	245	AD 1020–1265	Middle/Late Transition (MLT)	Normal sequin (M1a) Split drilled/oval (C2/3) Split punched (Class D) Split amorphous (C7) Tiny saucer (G1) Wide sequin, occasional (M1d)	
1200–930	270	AD 750–1020	Middle 4 (M4)	Normal narrow saddle (F3a) Rectanguloid/Oval saddle-smooth edges (F4c/d) Full saddle-smooth edges (F4a/b)	Upper Berkeley
1365–1200	165	AD 585–750	Middle 3 (M3)	Small narrow saddle (F3b) Normal narrow saddle (F3a) Irregular saucer (occasional; G5)	
1530–1365	165	AD 420–585	Middle 2 (M2) [c]	Normal narrow saddle (F3a) Rectanguloid/Oval saddle-chipped edges (F2c/d) Full/Round saddle-chipped edges (F2a/b) Full saddle-smooth edges (F4)	
2150–1530	620	200 BC–AD 420	Middle 1 (M1)	Saucer (Class G) Split-drilled/oval (C2/3) Oval saddle (F1)	
2550–2150	400	600–200 BC	Early/Middle Transition (EMT)	Split beveled (?) – no wall beads? (C1)	
+4050–2550	1,500+	+2100–600 BC	Early (E)	Thick rectangle (Class L)	Lower Berkeley

Notes: [a] Periods are based on temporal duration of diagnostic shell bead styles; abbreviations in parentheses; [b] Listed by relative predominance; [c] Fredrickson (1994). Groza et al. (2011:Figure 3) has inconsistent start dates for EMT and Late 2 (but see page 7-15 and Figure 37 for revised start date for EMT)

3.2.2 Terminal Pleistocene (13,500 – 11,700 cal BP)

Solid evidence of human occupation in California during the Terminal Pleistocene (13,500 – 11,700 cal BP) is scarce and poorly understood; however, there have been some discoveries of isolated fluted projectile points California that are thought to be similar in cultural affiliation and age as the fluted points associated with the Clovis tradition dating to around 11,500 cal BP. While fluted points are rare in California, they have been documented at the Borax Lake site (CA-Lak-36) in Lake County (Meighan and Haynes 1970; Moratto 1984:82–85), at Tracey Lake in the Delta (Heizer 1938), at the Wolfsen mound (CA-MER-215) along the middle San Joaquin River in Merced County (Peak and Weber 1978), and in the Mojave Desert and coastal southern California (Byrd et al. 2017). No fluted points or archaeological deposits dating to the Terminal Pleistocene have been documented in the San Francisco Bay Area (Byrd et al. 2017). The paucity of Terminal Pleistocene archaeological remains is, in part, because populations were small, highly mobile, and left little evidence of their activities on the landscape. Furthermore, landscape changes, including sea level rise, erosion and localized subsidence along the coast has buried evidence of these sites (Byrd et al. 2017).

3.2.3 Early Holocene (11,700 - 8200 cal BP)

During the Early Holocene (11,700 – 8200 cal BP) semi-mobile hunter-gatherers utilized a wide range of plant and animal foods from marine, lacustrine, and terrestrial environments (Erlandson et al. 2007; Jones et al. 2002; Meyer and Rosenthal 1995; Moratto 2002). Populations that emerged in the San Francisco Bay-Delta region were mobile foragers, characterized by a "Millingstone culture" that used milling slabs and handstones, crude cores and core tools, and various types of large wide-stemmed and leaf-shaped projectile points (Milliken et al. 2007:114; Wiberg 2010:31). The settlement pattern is thought to be based on high residential mobility and limited exchange (Wiberg 2010:31). There are only four Early Holocene-age archaeological deposits documented in the San Francisco Bay-Delta region, including two at Los Vaqueros Reservoir (CA-CCO-696 and CA-CCO-637) in eastern Contra Costa County (Meyer and Rosenthal 1997, 1998), one in Solano County (P-48-000897) (Hildebrandt et al. 2012), and one in Alameda County (P-01-011556) (Meyer 2015), all of which were found in a buried context.

3.2.4 Middle Holocene (8200 – 4200 cal BP)

There is more direct evidence of occupation in the San Francisco Bay-Delta region during the Middle Holocene than in previous periods, as indicated by the 60 plus sites that have been documented in the San Francisco Bay-Delta region dating to this period (Byrd et al. 2017). Artifacts found in sites dating to this period include a variety of ground stone tools (mortars/pestles and metates/manos), side-notched dart points, cobble tools, and a variety of shell beads and ornaments (Fitzgerald 1993; Meyer and Rosenthal 1998). The presence of an extensive trade network by at least 5200 cal BP is indicated by the Type N *Olivella* shell beads that are found in sites across a large region, and obsidian from sources located the Napa Valley and eastern Sierra Nevada (Casa Diablo and Bodie Hills sources) that are found in sites located throughout the San Francisco Bay-Delta region (Byrd et al. 2017). The first evidence for use of the San Francisco Bay's estuarine resources is also indicated during this period by the presence of shell midden deposits in Marin County (CA-MRN-17), Contra Costa County (CA-CCO-474/H), and in San

Mateo County (CA-SMA-40) that date between 6300 and 5000 cal BP, and at least two sites in Alameda County (CA-ALA-307 and CA-ALA-566) that date to 4900 cal BP and ca. 5000 cal BP, respectively (Blake 2016; Byrd et al. 2017). Faunal remains indicate reliance on seasonal waterfowl, anadromous and freshwater fish, as well a variety of nuts and small seeds, including acorn, gray pine, bay, buckeye, red maids, goosefoot, farewell-to-spring, juniper, and manzanita berry (Wohlgemuth 2010), which suggest that a wide range of habitats were exploited throughout the year (Byrd et al. 2017), consistent with a mobile foraging pattern. In addition, a human skeleton identified within a site in east-central San Mateo County (CA-SMA-273) dating to the Middle Holocene was uncovered 3.7 meters (12 feet) below the surface of San Francisco Bay during dredging operations off Coyote Point (Leventhal 1987), thus indicating that sites from this period located along the Bay Shore may be buried under Holocene-age alluvium.

3.2.5 Late Holocene (4200 – 180 cal BP)

Due to the greater number of archaeological sites that have produced stylistic artifacts and radiocarbon dates, there is more information about Late Holocene occupation than in earlier periods, and as such the Late Holocene can be subdivided into more specific time periods. As such, the Late Holocene is generally divided into the Early Period (4200–2550 cal BP), Early/Middle Transition Period (2550–2150 cal BP), Middle Period (2150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), and Late Period (685–180 cal BP). "The Late Holocene is very well-documented in the Bay-Delta Area, with more than 240 radiocarbon-dated sites reflecting widespread occupation" (Milliken et al. 2007).

Early Period (4200 – 2550 cal BP)

The Early Period (4200–2550 cal BP) marks a shift from a mobile foraging pattern to a sedentary and semi-sedentary land use pattern along the Bay Shore and interior valleys (Milliken et al. 2007). This more sedentary way of life seems to have been in response to the availability new resources as the San Francisco Bay estuary matured, and an increased dietary reliance on acorns rather than hard seeds. As a result, populations in the San Francisco Bay region increased in number, and the social organization became more complex, which is evidenced by mortuary practices and an increase in ornamental grave associations, regional symbolic integration and the establishment of trade networks. "Bay margin sites reveal a strong emphasis on marine shellfish, marine fishes, and marine mammals…In contrast, interior sites emphasized freshwater fish and shellfish along with terrestrial mammals. Nuts, berries, and small seeds appear to have been particularly important plant foods" (Byrd et al. 2017). Cultural patterns that emerged in the San Francisco Bay region during this period include Windmiller in the Delta Region and Lower Berkeley along the Bay Shore. Artifacts that typify the Early Period include corner-notched, concave-based, lanceolate, and side-notched style projectile points, cut marine shell (*Olivella* sp.) beads that are often found in a mortuary context, mortars and pestles, and more obsidian from Napa Valley sources than Annadel obsidian from Sonoma County (Milliken et al. 2007). The Early Period was also marked by significant climatic changes during which warmer and drier conditions led to desiccation of lake basins in southern California (Schwitalla 2013).

Middle Period (2150–930 cal BP)

The Middle Period (2150–930 cal BP) is marked by a population increase and a greater level of sedentism, as indicated by evidence of permanent villages used most of the year (Milliken et al. 2007). The population increase led to restricted mobility, which in turn led to resource intensification, increased cooperation and a greater level of social complexity (Milliken et al. 2007). In the latter half of the Middle Period and the Middle/Late Period Transition (930–685 cal BP), a dramatic cultural disruption occurred, marked by changes in shell bead types, settlement patterns and food resources (Milliken et al. 2007). The Berkeley Pattern, which developed from the preceding Lower Berkeley Pattern, was well established by the Middle Period (Moratto 1984). Berkeley Pattern traits typically include tightly flexed burials, with fewer grave offerings and no preference toward orientation. Cremations are occasionally encountered and are associated with more grave goods than flexed burials, a mortuary treatment suggesting differentiation in wealth or status. Burial artifacts typically include *Olivella* saddle and saucer beads and *Haliotis* pendants. Berkeley Pattern sites are also characterized by utilitarian objects that include numerous mortars and pestles, which imply greater reliance on nuts and seeds, as well as a highly-developed bone tool industry. New types of bone tools, such as the single-barbed bone fish spear, indicate a greater reliance on fish and marine mammals like sea otter, seal and sea lion (Elsasser 1978; Hildebrandt and Jones 1992). Shellfish collecting was also very important. This is indicated by the deposition of large quantities of shell, mostly mussel, which make up a good portion of shellmound constituents. Hunting is implied by spear and dart-sized projectile points, which were propelled using an atlatl, as well as high frequencies of deer and elk remains (Beardsley 1954; Hildebrandt and Jones 1992).

Middle/Late Transition Period (930–685 cal BP)

Starting at the end of the Middle Period and continuing in the Middle/Late Period Transition many Bay Shore residential sites were abandoned and new residential sites were established (Eerkens and Bartlink 2019; Lightfoot and Luby 2002). The reasons postulated for the abandonment of shellmound sites along the Bay include variable climate conditions and the availability of marine resources due to the MCA, a shift towards greater reliance on acorns rather than shellfish, intrusion of Patwin speaking people into the North Bay, or the return to a semisedentary settlement system whereby year-round occupation of shellmounds gave way to seasonal use of interior localities (Ingram 1998; Lightfoot and Luby 2002; Schwitalla 2013). It is notable that there appears to have been major cultural changes happening throughout central California during this time that include increases in population density, shifts in the nature of interpersonal violence, a decrease in the average age of weaning, and changes in settlement patterns (Eerkens and Bartlink 2019).

Late Period (685–180 cal BP)

Occupation during the Late Period (685–180 cal BP) is well-documented in the San Francisco Bay-Delta region, and is thought to be associated with a new level of sedentism, status ascription, an increase in ceremonialism, and regional trade. It appears that an economic relationship was maintained among the many small autonomous socio-political groups called tribelets, and trade was frequent between coastal

groups, valley groups and Bay Shore groups (Hylkema 2002). Sites from this time period are associated with the Augustine Pattern and artifacts typically include large, well-formed mortars, pestles and hopper mortars that indicate a continued reliance on acorns, flanged steatite smoking pipes, toggle harpoons, baked clay figurines, clamshell disk beads, small projectile points such as the Rattlesnake corner-notched and Desert side-notched points that suggest the use of the bow-and-arrow (use of the bow and arrow is first documented in the region circa 700 cal BP) in oppose to the atlatl that was used previously in conjunction with spear points, steatite and magnesite beads and tubes, *Olivella* callus cup beads, and *Haliotis* banjo shaped pendants. The manufacture of clamshell disk beads, which were used as exchange currency with a standardized value, seems to have centered primarily on the Santa Rosa Plain in Sonoma County and within the Napa Valley. The burial practice of cremation was also introduced in the North Bay during this time (Milliken et al. 2007). These shifts in technology, artifact types and mortuary practices appear to indicate that another upward cycle of regional integration took place during this period. However, this cycle was stopped short by Spanish colonization and missionization of Native populations.

3.3 ETHNO-HISTORIC SETTING

The Project Area is situated within a territory that was occupied by the Costanoan (also known as Ohlone[4]). The first instance of European contact with Costanoan people occurred in late 1769 when Gaspar de Portola "discovered" the San Francisco Bay, the initiating event of European colonization of the area (Milliken 1995). Early accounts documented that there were approximately 10,000 Costanoan people living around the Bay. However, with the arrival of the Spanish came the establishment of missions with a concerted effort to convert the Native population to Catholicism and the introduction of European disease for which the Natives had no immunity, and these factors quickly led to the demise of Bay Area populations (Milliken 1995). According to mission records, the Costanoan organization was severely disrupted by 1810, and by 1832 only 2,000 Costanaon people had survived (Cook 1943). Much of the ethno-historic literature pertaining to the Costanoan comes from the diaries of early Spanish explorers describing their incursions into the San Francisco Bay region between the years 1769 and 1776. This information is supplemented by early ethnographers who located Native informants and obtained information about language, territory, material cultural, political and social organization and subsistence practices.

The word *Costanoan* is from the Spanish word Costaños, which means "coast people," and refers to a language family not a political entity. Modern descendants of the Costanoan prefer to be called Ohlone, a name derived from a Native coastal village by that name (Heizer and Elsasser 1980). The two names (Costanoan and Ohlone) are used interchangeably in much of the ethnographic literature. The Costanoans spoke a language considered one of the major subdivisions of the Miwok-Costanoan, which belonged to the Utian family within the Penutian language stock (Shipley 1978). It has been postulated

[4] Modern descendants of the Costanoan prefer to be called Ohlone, a name derived from a Native coastal village by that name (Heizer and Elsasser 1980).

that Penutian-speaking ancestral Costanoans moved into the region and replaced or assimilated with an earlier Hokan-speaking population as early as 4,500 B.P. (Moratto 1984).

Costanoan denotes a family of eight languages, four of which were spoken by people occupying the San Francisco Bay area (Figure 7). Each language group was subdivided into smaller village communities or tribelets (Figure 8). These independent political entities occupied specific territories, eight to twelve miles across and defined by physiographic features (Milliken 1995). Each tribelet controlled access to the natural resources within its territory, which typically required that there be one or more primary villages and numerous smaller villages used seasonally for resource procurement. Usually, a common language was shared with one or more neighboring tribelets (Heizer and Elsasser 1980). The San Francisco peninsula, including the area of Menlo Park was occupied by the *Ramaytush*, who numbered about 1,400 and consisted of about twelve tribelets, including the *Lamchin* who occupied the area that extended from Belmont south to Redwood City and included interior valleys to the west (Levy 1978:485; Milliken 1995:246-247). Five *Lamchin* villages are mentioned in historic mission records, the most important of which was "Cachanigtrac, alias Las Pulgas" that was located on Pulgas Creek in the present-day city of San Carlos. The other villages included Ussete, Guloinsisac, Oromstac, and Ssupichom (Milliken 1995:247).

The largest village in a tribelet area was occupied by a chief (Heizer and Elsasser 1980). Both men and women acted as chief, who was responsible for organizing activities; however, "Costanoan ideas of personal freedom precluded the existence of any type of institutionalized coercive power" (Levy 1978).

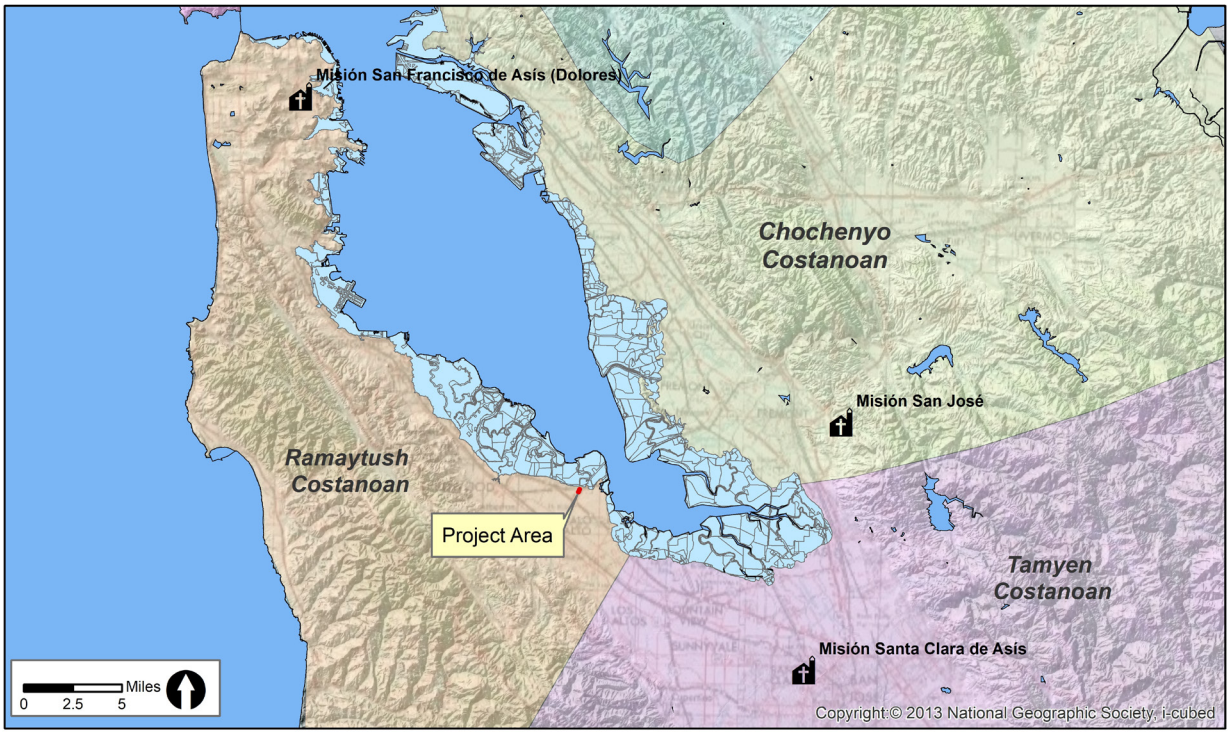

Figure 7: Ethno-historic tribal communities in the vicinity of the Project Area.

Figure 8: Tribelets occupying the southwest area of the San Francisco Bay at the time of Spanish settlement in 1776 (adapted from Milliken 1995, and East Bay Regional Park District map of tribal territories).

The Costanoan were successful hunter/gatherers who utilized a wide range of resources in a very favorable environment. They practiced specialized horticultural techniques, including the use of fire, that increased the numbers and health of the numerous plants and animals on which they relied. A variety of plant foods were gathered on a seasonal basis. Important plant foods included the nuts of coast live oak, valley oak, California black oak, tanbark oak, buckeye, California laurel and hazelnuts. The acorns from oaks were the most important plant food, and were collected in large quantities and stored. They were processed by removing the hard-exterior shells, pulverizing the inner nut in a mortar bowl (basketry, wood, and stone mortars of various types were used), then leaching with water to remove the tannins. Buckeyes were made edible in much the same way. Seeds that were roasted before consumption included dock, tarweed, chia, and gray pine. Hazelnuts and California laurel nuts were also eaten, as well as seeds from a number of other plants. Many types of berries, including blackberries, elderberries, strawberries, Manzanita berries, gooseberries, madrone berries, grapes and toyon berries were also collected and eaten, as well as a number of tubers and roots such as wild onions, cattail roots, amole, hog fennel and wild and tubers (Levy 1978). In the hills and valleys some mammals that were hunted included deer, elk, antelope, bear, rabbit, squirrel, woodrat, mouse and mole.

The bow-and-arrow constituted a part of the hunting technology. Both unbacked and sinew backed bows ranging from 3 to 4½ feet long were used to launch arrows fitted with lithic or bone points. Bowstrings were manufactured from animal sinew or vegetal fibers. The typical arrow was a compound arrow consisting of a cane shaft fletched with three feathers and a hardwood foreshaft to which a

projectile point was usually, but not necessarily, attached. Hunting arrows seem to have been rather long in comparison to war arrows. Asphaltum was used as the adhesive for fletching (Levy 1978; Switzer 1974).

Basketry was a well-developed craft and baskets were used for the collection, preparation and storage of food, and for a variety of other reasons. Other kinds of baskets included mush bowls, cooking baskets, parching trays, storage baskets, sifters, fish traps, trinket containers, canteens, and possibly cradles (Levy 1978). The Costanoan also constructed "balsa" boats using about twenty bundles of tule reeds, also called bulrushes, tied together with cordage made from milkweed, Indian hemp or nettle, that were stabilized with Willow poles. They were propelled using double-bladed wooded paddles and anchored with stones tied to a rope (Font 1930; Levy 1978). Boats were used to navigate the Bay and major river systems, and during hunting and gathering forays. The presence of archaeological sites on islands in San Francisco Bay suggest the use of balsa boats as early as 3,400 BP (Morgan and Dexter 2008).

3.4 HISTORIC SETTING

The following historic setting is intended to provide an overview of the broader historic themes, as well as specific historic contexts potentially associated with any archaeological resources that could be located within the Project Area.

3.4.1 Spanish Period (1772 - 1821)

The discovery of San Francisco Bay was due to the determination of King Carlos III of Spain to occupy and colonize "Alta California"[5], and was the joint work of both church and state. The Spanish entered present-day San Mateo County as early as 1769 with the Portola expedition, and was likely the first historic contact with the native people who occupied the peninsula. The expedition encountered *Lamchin* men, but may not have passed through any *Lamchin* villages (Milliken 1995:34). The Portola expedition was soon followed by the Fages-Crespi expedition in 1772 that traveled from Monterey up the Santa Clara Valley then along the Fremont Plain, east of the San Francisco Bay, to the delta area before heading back to Monterey through the San Ramon Valley and Pleasanton areas (Cook 1957). The expedition of Juan Bautista de Anza accompanied by Father Pedro Font (Anza-Font expedition) traveled through the same area four years later, in 1776; however, this expedition visited a small *Lamchin* settlement in present-day Belmont on Laurel Creek (Milliken 1995:52-53). The Anza-Font expedition consisted of Lieutenant Jose Moraga, Father Crespi, eleven soldiers and two servants (Mildred et al. 2002). These expeditions resulted in establishment of the Presidio of San Francisco and Mission San Francisco de Asis (1776) in present-day San Francisco, Mission Santa Clara de Asis (1777) in present-day Santa Clara, and the Mission San Jose de Guadalupe (1797) located in present-day City of Fremont. The arrival of the Spanish and the establishment of missions led to the rapid demise of the Costanoan

[5] *Alta California* was a polity of New Spain founded in 1769 and became a territory of Mexico after the end of the Mexican War of Independence on 1821.

population and culture, as efforts to missionize the Natives were strong, and diseases were introduced by early explorers and missionaries for which the Natives had no immunity.

During this time, the Project Area was included in a 35,240-acre land grant, called *Rancho de las Pulgas*, that was given in 1795 by Spanish Governor of Alta California, Diego de Borica, to José Darío Argüello who was the commanding officer of the Monterey, San Francisco, and Santa Barbara presidios. The rancho known as "Las Pulgas" appears to have obtained its name due to an incident that happened on October 27, 1769 when the Portola Expedition camped near the ocean shore in an abandoned Indian village at the mouth of Purisima Creek. According to a diary written by Miguel Costanso, the Army Engineer with the Portola Expedition, the campsite was infested with "las pulgas," which when translated means fleas (Miguel Costansó 1770). The *de las Pulgas* land grant was bounded by San Mateo Creek on the north and San Francisquito Creek on the south, and encompassed present-day cities of San Mateo, Belmont, San Carlos, Redwood City, Atherton, and Menlo Park.

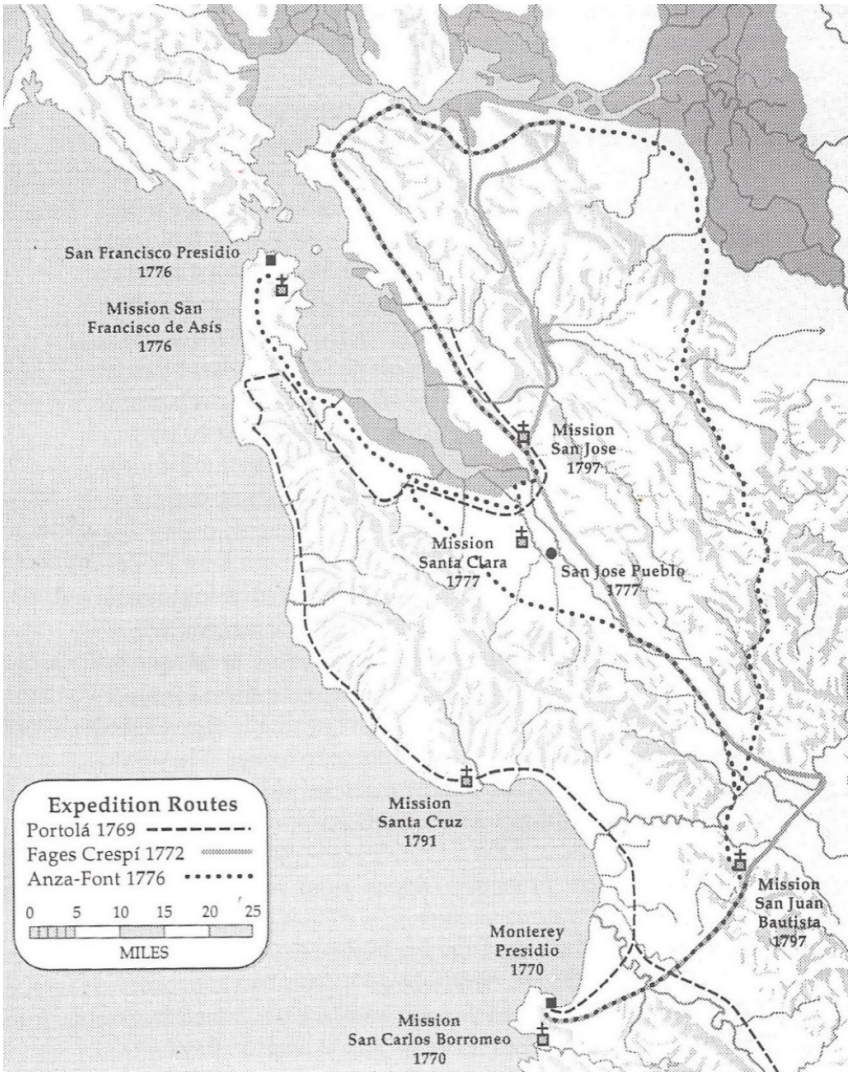

Figure 9: Routes of three key Spanish incursions into the San Francisco Bay Area between 1769 and 1776, and the locations of Spanish settlements through 1810 (Milliken 1995:33).

3.4.2 Mexican Period (1821 – 1848)

In 1821, Mexico won its independence from Spain with the signing of the Treaty of Córdoba and took possession of Alta California, marking the end of the Spanish period and the beginning of the Mexican period in Alta California. Many changes occurred throughout California under Mexican rule due to the lack of strong oversight and military rule imposed by the Spanish. Under the new Mexican Republic, missions were secularized, which resulted in Mission land and property being dissolved. New opportunities for trade also arose, as foreign ships that had previously been held off by Spanish guarded military ports were allowed to dock and sell tea and coffee, as well as manufactured goods; and the taxes on these imported goods became the main source of revenue for the Mexican government in Alta California. Likewise, products produced in Alta California were exported, which bolstered the hide and tallow trade, which became the primary business activity in Alta California during this time. The Mexican colonial authorities also permitted and encouraged foreigners to relocate and settle in Alta California and as a result the population of Euro-Americans increased. As the population grew, and the hide and tallow trade became a main source of revenue, ranchos were established that included large tracks of land given to politically prominent Mexican citizens and military leaders.

In 1835, Mexican Governor José Castro granted four square leagues of the original *Rancho de las Pulgas* to José Darío Argüello's family that included Maria Soledad Ortega de Argüello and Don Luis Antonio, who was the son of José Darío Argüello (Bancroft 1886).

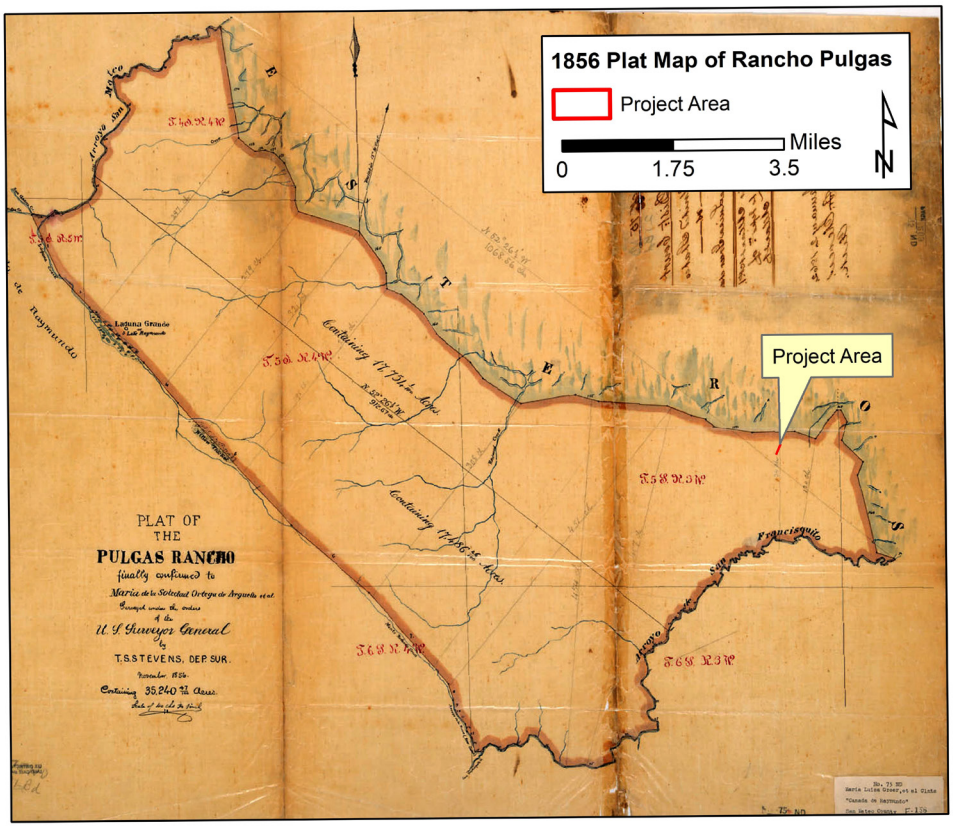

Figure 10: 1856 Map of Rancho de las Pulgas showing Project Area location in red.

3.4.3 American Period (Post 1848)

The beginning of the American Period in California is marked by the end of the Mexican-American War in 1848 when the U.S. signed the Treaty of Guadalupe Hidalgo and took possession of the territories that included California, Arizona, Colorado, Nevada, Utah, Wyoming, and New Mexico. The Treaty of Guadalupe Hidalgo provided the resident Mexicans their American citizenship and guaranteed title to land granted to them in the Mexican period. However, within weeks of the treaty signing, a massive influx of settlers began to arrive in California due to the discovery of gold in 1848. Once the initial rush (1848 – 1850) was over, there was a high demand for agricultural land, as people realized that money could more easily be made from raising and selling food to satisfy the needs of a rapidly growing population. The ideal growing conditions in California made it a very attractive place to settle and the potential for wealth drew numerous settlers to the state from all over the U.S., as well as Scotland, Ireland, England, Germany, and France. The massive influx of new settlers soon gave rise to land disputes as they began to move onto vacant rancho land that they perceived to be available for settlement. To resolve these disputes, the U.S. Congress passed the California Land Act of 1851 that established a three-member Public Land Commission to determine the validity of prior Spanish and Mexican land grants. It required landowners who claimed title under the Mexican government to file their claim with the Commission within two years. Although the Commission eventually confirmed most of the original Mexican land grants, the cost of litigation to defend their land titles forced many Californios[6] to sell their land and cattle, and more often than not their land was lost to newly arriving American settlers and the lawyers who were hired to defend land title claims (Olmsted 1986).

As required by the Land Act of 1851, a claim for *Rancho de las Pulgas* for twelve square leagues was filed in 1852 with the Public Land Commission by heirs of Luis Antonio Argüello. The Land Commission rejected the claim for twelve square leagues, but confirmed the claim for four square leagues. A claim filed by Gervasio Argüello with the Land Commission in 1852 was rejected; and a claim filed by Mowry W. Smith with the Land Commission in 1853 was rejected as well. In 1857, following the 1856 official survey, the grant was patented to Maria Soledad Ortega de Argüello (one undivided half), Jose Ramon Argüello (one undivided fourth), Luis Antonio Argüello (one undivided tenth), and S. M. Mezes (three undivided twentieths). Simon Monserrat Mezes was the Argüello family's lawyer who handled the land patent process (Bancroft 1886).

3.4.4 History of Menlo Park

During the beginning of the Early American Period (1848-1880), the California Gold Rush was in full swing and settlers that made their way to California began squatting on the vast and mostly unoccupied ranchos lands. Many of the new settlers occupied and improved these lands and then petitioned the courts for legal ownership. In some cases, these legal challenges proved exceedingly difficult and costly for the owners of the land grants, and as a result many Californios lost their land to newly arriving

[6] Spanish-speaking residents of Alta California during the Spanish and Mexican era (1769-1848).

settlers. By the time gold fever had slowed, the Argüello land had become an attractive place for settlers who were drawn to the area by the prospering logging industry.

In 1851, two settlers by the names of Dennis J. Oliver and Daniel McGlynn purchased 1,700 acres (conflicting documentation by the Menlo Park Historical Association states that the purchase may have been only 640 acres) of *Rancho de las Pulgas* land from the Argüello family. The land was situated along an area that bordered near the El Camino Real and within present-day Menlo Park. Oliver and McGlynn each built a house on the land and constructed an arched gate along the main entrance of their cattle ranch (https://sites.google.com/site/mphistorical/). At the top of the gate was written the words, *Menlo Park*, which was the name given to the land in honor of the men's hometown of Menlough, County Galway, Ireland.

By the early 1860s, there was talk about a peninsula railroad line that would run from San Francisco to San Jose, making a stop along the way just north of the San Francisquito Creek near the Menlo Park arch. In 1863, the Southern Pacific Railroad (SPRR) was built and the new railroad station was given the name "Menlo Park" (City of Menlo Park 2013). The SPRR station was constructed across and along present day Merrill Street. Menlo Park was soon a favorite stop for weekend city dwellers and folks that were seeking a mild climate. As a result, many residents from San Francisco built grand estates for their summer residences (https://sites.google.com/site/mphistorical/). During this same period the planned area of Menlo Park began in a development along Oak Grove Avenue between the railroad station and El Camino Real. By 1870, only twelve buildings were located in what was known as downtown Menlo Park near the railroad station, El Camino Real, and Oak Grove Avenue, which included two general stores, three hotels, livery stables, saloons, and three blacksmith shops. The first store in Menlo Park was on the corner of Oak Grove Avenue and El Camino Real. The first hotel in town was known as the Menlo Park Hotel, located on Oak Grove Avenue near the railroad tracks. The *Menlo Park* sign was reconstructed at least twice, once in 1886 after the first one blew down, then again in 1905; the sign was finally destroyed in 1922 during an automobile accident. By the early 1900s, the population in Menlo Park remained low and was estimated to be only 400 citizens.

In 1905, electric lights arrived in Menlo Park, and in 1916 a new San Mateo County library opened in the new Central Public School. However, Menlo Park's population had changed very little since the turn of the century, and the area was still considered a farming town with less than 2,300 people during this time. That all changed in 1917 when the U.S. entered World War I (WWI) and the U.S. Military chose Menlo Park as a location to train solders. The 1,000-acre Johnson Dairy farm was the location picked to set-up the training camp, called Camp Fremont; however, the government eventually leased 25,000 acres of land, 1,300 acres of which were used for tent billets and nearly 1,000 buildings for mess halls, storage, headquarters, and recreational facilities. Approximately 40,000 soldiers trained at the camp. The camp was generally bounded by El Camino Real, Valpariso, Santa Cruz Avenue, and San Francisquito Creek (Menlo Park Historical Association 2019). The arrival of the military brought sudden changes and growth to Menlo Park.

In 1917, the El Camino Real was paved for the first time, construction was also completed on Menlo Park's first gas and water services, and there was a significant increase in businesses to facilitate the

thousands of soldiers that trained at Camp Fremont during WWI. After the armistice in 1918, Camp Fremont was dismantled and most of all the materials, including steel from buildings, was sold off as scrap metal (https://www.youtube.com/watch?v=15M3_BbWJ6s).

In 1927, Menlo Park was incorporated within a 1.2 square mile radius and with a population of 2,200 (www.ancestory.com). By 1940 the population was growing steady, but again slowed when it had reached approximately 3,200 citizens. After the end of WWII, like in many areas, rapid growth occurred in Menlo Park and the population rose to 8,000, and the City's boundaries doubled to 2.1 square miles. Today Menlo Park covers an area that is 9.8 square miles and includes 7.6 square mile of water that is considered part of Menlo Park. As of 2015, the population of Menlo Park was 33,449 (www.ancestory.com).

4.0 RECORDS SEARCH AND REVIEW

A record search was conducted that included a review of information available at the Northwest Information Center (NWIC) of the California Historical Resources Information Systems (CHRIS), and a review of historic maps and geoarchaeological, soils and geologic data for the Project Area. The purpose of the NWIC record search was to determine if the Project Area has been previously evaluated for cultural resources, and to review previous cultural resource studies conducted within 0.25-miles of the Project Area as well as records pertaining to archaeological resources located within one mile of the Project Area. Historic maps, soils reports, geoarchaeological studies, and geologic maps were reviewed to assess the potential for archaeological resources to be present below the existing buildings and pavement. The results of the record search and review are presented below.

4.1 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

EDS Principal Archaeologist, Sally Evans, M.A, RPA completed a record search at the NWIC on July 17, 2019 (NWIC File No. 19-0107). According to information on file at the NWIC, the Project Area has not been previously surveyed for cultural resources; however, there have been eight (8) cultural resource studies previously completed within 0.25-miles of the Project Area that include those listed in Table 2 below.

Table 2: Previous Cultural Resource Studies Completed within 0.25-Miles of the Project Area.

NWIC	Year	Title	Authors
3021	1976	An archaeological reconnaissance of the 100.6 acre Raychem Corporation properties in Menlo Park, California (letter report)	Dietz, Stephen A.
4866	1978	The Subsurface, Secondary Testing of the Hiller Site, SMA-160.	Cartier, Robert
7346	1985	Archaeological Survey Report landscaping project along Routes 84 and 101 in San Mateo and Alameda Counties, 04-SM/Ala-101, 84, 04253-033231 (Caltrans).	Offermann, Janis K.

NWIC	Year	Title	Authors
19711	1996	The Hiller Site: CA-SMA-160, Archaeological Burial Recovery Program Willow Park VIII in the City of Menlo Park.	Cartier, Robert
20692	1997	Archaeological Field Inspection of the Proposed Willow Avenue at Hamilton Retail Center, Menlo Park, San Mateo County, California.	Miley Paul Holman
36481	2009	Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California.	Adrian Whitaker, Phil Kiajankoski, and Jack Meyer
37241a		Historic Property Survey Report (HPSR) for the Proposed Metalbeam Guardrail Upgrade Project at Various Locations across San Mateo County, California.	Benjamin J. Harris
37241b	2010	Archaeological Survey Report (ASR) for the Proposed Metalbeam Guardrail Upgrade Project at Various Locations across San Mateo County, California.	Benjamin J. Harris
37241c	2010	Environmentally Sensitive Area (ESA) and Archaeological Monitoring Area (AMA) Action Plan for Two Location Along State Route 1, San Mateo County, California.	Benjamin J. Harris
37241d	2010	Extended Phase I Testing at CA-SMA-97 for the Proposed Metalbeam Guardrail I-5 Upgrade Project, San Mateo County, California.	Benjamin J. Harris
38063	2009	Smart Corridors Geoarchaeological Sensitivity Research.	Neal Kaptain

4.1.1 Known Archaeological Resources in the Vicinity

The records search conducted at the NWIC revealed the presence of ten cultural resources within one mile of the Project Area, including nine prehistoric archaeological sites, one of which also has a historic-period component, and one historic district. These resources are listed in Table 3 below and shown on the map in Figure 11.

Table 3: Archaeological Sites in the Vicinity of the Project Area.

Primary	Trinomial	Description	Distance from Project Area
P-41-000080	CA-SMA-77	Prehistoric Archaeological Site (University Village): habitation site with human burials and artifacts such as charmstones, mortars, pestles, sinkers, chert points, etc. Site found within a buried context.	0.9 miles east
P-41-000160	CA-SMA-160	Prehistoric Archaeological Site (Hiller Mound): habitation site with human burials and artifacts such as red Franciscan chert, ground stone, fire-cracked rock, pestles, shellfish fragments, etc.	600 feet northeast
P-41-000233	CA-SMA-235	Prehistoric Archaeological Site: site with artifacts such	0.5 miles

Primary	Trinomial	Description	Distance from Project Area
		as an obsidian projectile point, bowl mortar fragment, burnt clay, burned and unburnt bone, chert flakes, and shellfish, including oyster (*Ostera luridia*), California horn snail (*Cerithidea californica*), mussel (*Mytilus edulis*), and clam (*Protothaca staminea*).	east
P-41-000244	CA-SMA-248	Prehistoric Archaeological Site (Tarlton Site): habitation site with dark friable midden soil containing artifacts such as FCR, projectile points, chert flakes, and shellfish, including California horn snail (*Cerithidea californica*) and oyster (*Ostera luridia*).	0.47 miles east/northeast
P-41-000258	CA-SMA-262	Prehistoric Archaeological Site (Glen Way): site containing at least one human burial found within an ashy grey midden soil. Artifacts found in association with the burial include two abalone (*Haliotis rufescens)* shell pendants, fragment of unworked abalone shell, one Olivella shell bead, baked clay with basketry impression, and a fragment of fire-cracked ground stone.	0.78 miles southeast
P-41-00263	CA-SMA-267	Prehistoric Archaeological Site: site containing at least one human burial. Artifacts found in association with the burial include one Franciscan cert flake tool.	0.61 miles southeast
P-41-002076	CA-SMA-386/H	Archaeological Site that has both a historic and prehistoric component. Historic component includes two historic refuse dumps likely associated with the Carnduff farmstead, and the prehistoric component includes a habitation site marked by a moderate scatter of debitage, bifaces, ground stone, and shell (mostly *Cerithidea*, but also some *Mytilus*, and *Macoma* noted). Possible middle prehistoric period occupation.	0.56 miles northeast
P-41-002143	CA-SMA-375	Prehistoric Archaeological Site (Bay Road Courtyard Site): site containing at least one human burial and marked by sparse scatter of shell (*Cerithidea*) and one pestle.	0.9 miles east/southeast
P-41-002292	-	Prehistoric Archaeological Site (Willow Road Shell Scatter): site consist of a scatter of shell fragments and one bone fragment.	0.24 miles south
P-41-002351	-	Historic District (Ravenswood Salt Works District): seven remnant salt ponds associated with the Ravenswood Salt Works with a period of significance from 1910s to 1953.	0.22 miles north

Figure 11: Archaeological Sites in the Vicinity of the Project Area.

4.2 ARCHAEOLOGICAL SENSITIVITY

A review of historic maps, aerial photographs, as well as geoarchaeological, soils and geologic data for the Project Area was conducted to better understand the potential for the Project Area to contain archaeological resources.

4.2.1 Prehistoric Archaeological Site Sensitivity

According to the record search information presented above, there are at least nine prehistoric archaeological sites that have been identified within one mile of the Project Area, five of which are known to contain human burials; and these sites have been found in an environmental setting that is similar to the Project Area, namely due to being in close proximity to the historical margins of the San Francisco Bay and its marshlands.

While most archaeological sites located within one mile of the Project Area display surficial evidence of prehistoric occupation, at least one site (CA-SMA-77) was found within a buried context. Therefore, information about the geology and soils associated with the Project Area was reviewed to identify the potential for buried prehistoric archaeological resources to be present. Determining the geologic age is important because Holocene-age landforms commonly contain Holocene-age buried soils (i.e., former land surfaces, also known as paleosols) that have the potential to contain buried prehistoric archaeological resources; and certain landforms such as alluvial fans, floodplains, and areas along rivers and streams, are more likely to contain buried prehistoric archaeological sites than other types of landforms (Meyer and Rosenthal 2007).

According to the geologic map of the Palo Alto 30' x 60' Quadrangle (Brabb et al 2000), the Project Area is located on Holocene-age (post 11,700 years before the present) basin deposit (Unit: Qhb) consisting of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to bay mud (Brabb et al. 2000). The soil within the Project Area includes urban land-Orthents, reclaimed complex, 0 to 2 percent slopes, which appears to be artificial fill soil (USDA 2019). According a geoarchaeological overview of the nine Bay Area counties (Meyer and Rosenthal 2007), large areas of artificial cut/fill soils are mapped in San Mateo County along the margins of San Francisco Bay. The cut or fill areas were formed during the historic or modern period (i.e., <150 years) as a result of urban development; thus, archaeological sites of almost any age may have been destroyed through artificial cutting, redeposited by artificial filling, or completely buried by artificial fill deposits (Meyer and Rosenthal 2007).

Due to the Project Area's environmental setting, the presence of several prehistoric archaeological sites in the vicinity of the Project Area, and the potential for the Project Area to contain buried prehistoric archaeological resources, the Project Area appears to have a high prehistoric archaeological site sensitivity.

4.2.2 Historic Archaeological Site Sensitivity

The following historic maps and aerial photographs were reviewed to determine the potential for historic-era archaeological resources to be located within the Project Area.

- 1856 Plat Map of Rancho Pulgas
- 1894 Official Map of San Mateo County, California
- 1899 Palo Alto, Calif. [Quadrangle] Topographic map, 15-minute series.
- 1943 United States War Department, Corps of Engineers Palo Alto, Calif. [Quadrangle]. Topographic map, 15-minute series.
- 1948 United States Department of the Army, Corps of Engineers Palo Alto, Calif. [Quadrangle] Topographic map, 15-minute series
- 1961 Palo Alto, Calif. Quadrangle map, 7.5-minute series.
- Aerial photograph from 1930, 1941, 1956, 1965

Two of the earliest maps of the area, including the 1894 and 1899 maps (Figure 12 and Figure 13) do not indicate any development within the Property in the late nineteenth century. The first historic land use activity within the Project Area appears on the 1930 aerial, which shows what appear might be hay bales and three unknown type structures within the Project Area (Figure 14); however, agricultural use of the Project Area of the Project Area is not indicated on the 1941 aerial, nor are any buildings or structures shown as having been present in 1941 (Figure 15). Furthermore, no buildings or structures are depicted within the Project Area on the 1943 or 1948 USGS 15' Palo Alto topographic maps. However, according to an aerial from 1955, six of the 17 buildings that make up the current 82-unit development within the Project Area were present (Figure 16), which appears to have been completed by 1965 (Figure 17).

The review of historic maps and aerials indicates that the existing residential development, which appears to have been constructed in the mid-to-late 1950s, was the first development to occur within the Project Area. Prior to the 1950s, the Project Area appears to have been used for agricultural purposes. Due to the lack of development within the Project Area prior to the 1950s, the Project Area appears to have a low historic archaeological site sensitivity.

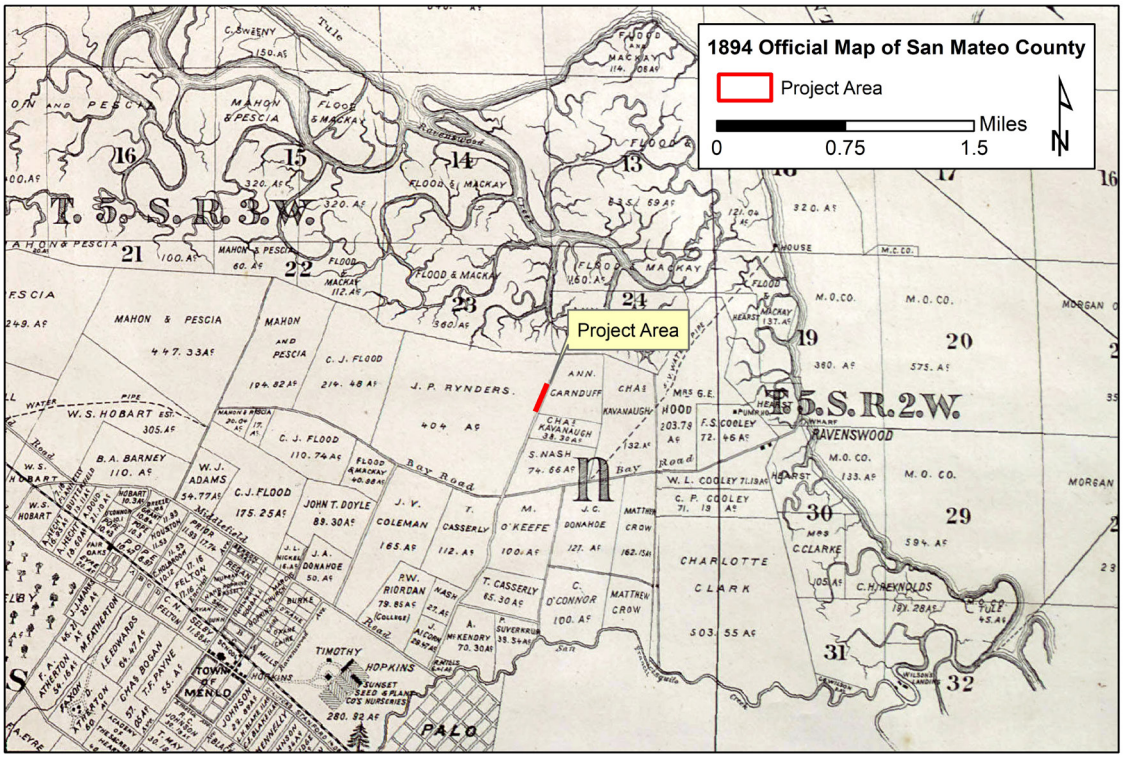

Figure 12: 1894 Official Map of San Mateo County showing the Project Area in red.

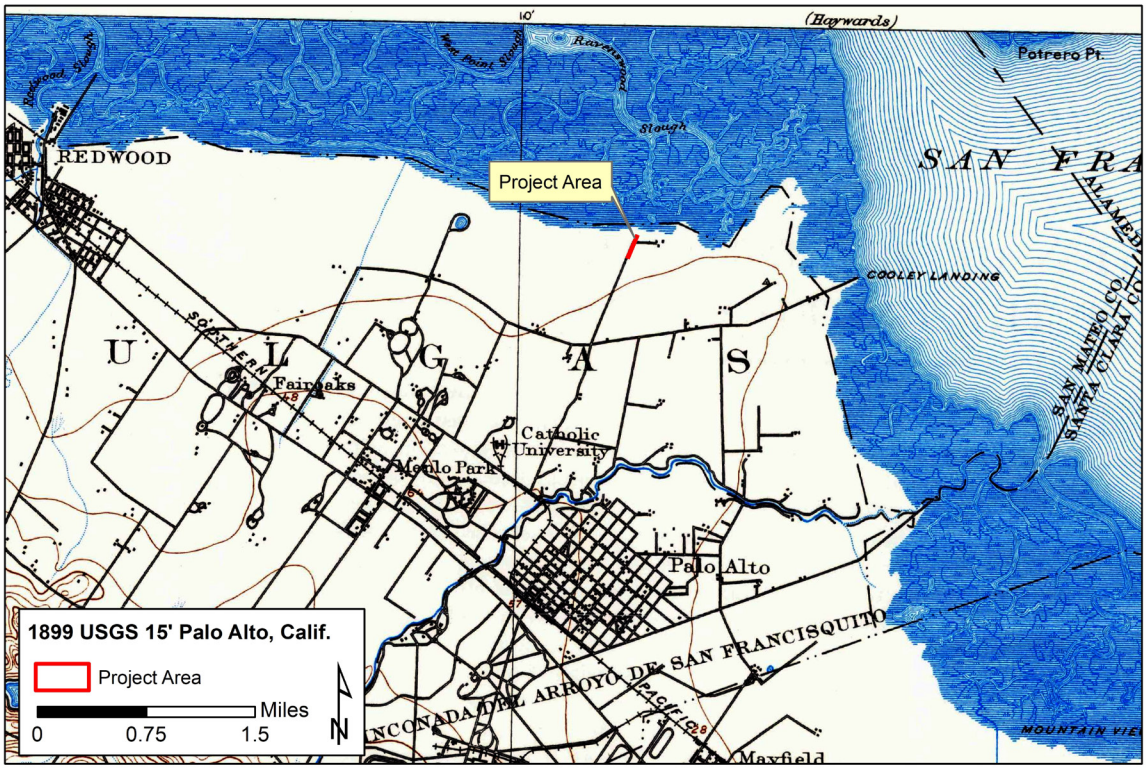

Figure 13: 1899 USGS 15-minute Palo Alto topographic map showing Project Area in red.

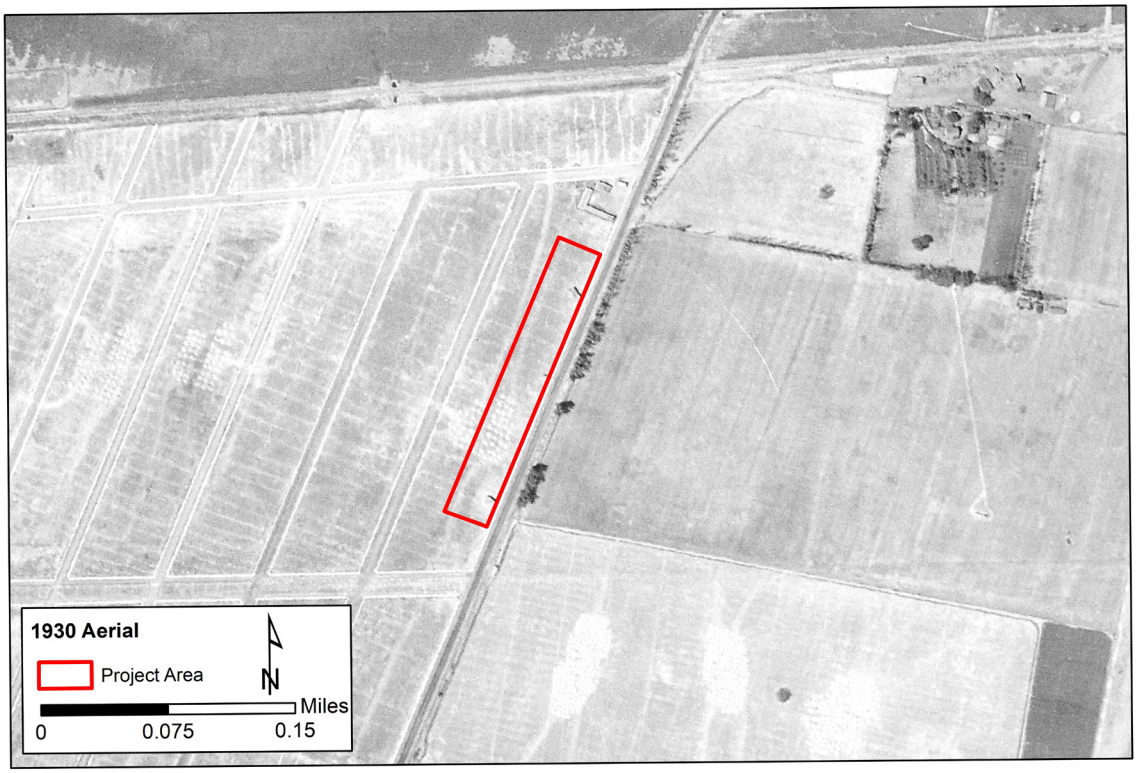

Figure 14: June 1930 aerial (UC Santa Barbara, Catalog # C-1025).

Figure 15: April 1941 aerial showing Project Area in red (UC Santa Barbara, Catalog #C-7065).

Figure 16: December 1955 aerial showing Project Area in red (UC Santa Barbara, Catalog #CIV-1956).

Figure 17: April 1965 aerial showing Project Area in red (UC Santa Barbara, Catalog #CAS-65-130).

5.0 RESEARCH DESIGN

This research design follows the Secretary of Interior's Guidelines for Archaeological Documentation. Its purpose is to describe research themes and address the types of anticipated artifacts, probable depth of cultural deposits, previous disturbances, and NRHP-eligibility. This research design has been prepared in the event that potentially significant archaeological resources are discovered during excavation associated with the Project Area.

Scientific or scholarly research values are judged within the context of a research design that provides the framework for examining variability and change in the archaeological record. A research design outlines the topics or questions that could be asked, given the kinds of data that a particular property type is likely to contain, and evaluates whether that information can be gained from other sources.

Based on the archaeological sensitivity of the Project Area, it is possible that prehistoric resources might be encountered. When resources are discovered during earth-disturbing activities or construction, and if they cannot be avoided, EDS will develop a more comprehensive research design, appropriate to the discovered resource. To preclude the need for additional time spent in review once construction begins, a preliminary Research Design is included below that also includes a research design for historic period archaeological resources even though the potential for historic-period archaeological resources to be present within the Project Area is low. Discussion of potential research values that might be important if associated deposits are identified are reflected as broad, modest themes based on archaeological data for the Project Area and its surroundings.

5.1 RESEARCH ORIENTATION

A fundamental premise of archaeological research is that behavior and social practices of individuals and communities are in some way represented in the material record of past human activities. The study of the patterning in the material record allows us to construct interpretations of how people lived in the past and adapted to their changing environments. The material record comprises artifacts, features, and ecofacts. By definition, an artifact is a movable object transformed by a human being, such as a projectile point; a feature is a non-portable remnant of human activity, such as a hearth, road, or house. Lastly, an ecofact is any floral or faunal material, that has not been altered by people, but that nonetheless has cultural relevance. An archaeological site is any concentration of artifacts, ecofacts, and features manufactured or modified by humans.

In conducting Cultural Resource Management (CRM)-based research, it is important to understand that small archaeological assemblages may not be able to provide substantive information by themselves, but when aggregated together with the date derived from other assemblages, they may reveal interesting and important patterns about the past. Furthermore, archaeological sites almost always have integrity when previous disturbance has not occurred; however, previous disturbance does not preclude an archaeological resource from meeting eligibility requirements.

5.2 RESEARCH DESIGN

This section describes the types of archaeological resources that may be encountered within the Project Area and the types of research questions that can be addressed if such resources are identified.

5.2.1 Cultural Resource Property Types

Cultural resources relate to remains and sites associated with human activities and include prehistoric and ethnohistoric Native American sites, historic cultural resource sites, historic buildings, and elements or areas of the natural landscape that have traditional cultural significance. Significant prehistoric cultural resources are defined as human burials, features or other groupings of materials modified or used by Native American peoples in the past. Indicators of prior cultural occupation by Native Americans include artifacts and burials of human remains, soil discoloration, faunal bone, shell, modified cobbles, ashy areas, and baked or vitrified clays. Materials may include human bone, artifacts of chipped stone such as projectile points, groundstone artifacts, such as mortars and pestles, and bone and shell artifacts. Various features and samples may be encountered including hearths of fire-affected rock, baked and vitrified clay, unmodified faunal and shellfish remains; these characteristics may permit dietary reconstruction, and other evidence, such as differences in compaction in house floors.

Historic cultural materials in the region may have occurred anytime in the last two hundred years, between the late eighteenth through the twentieth centuries. These materials may include structural remains, such as portions of walls and foundations, or glass bottles, metal cans or other manufactured artifacts found in refuse deposits, privies, and wells.

5.2.2 Site Formation Process

It is essential to understand the processes by which cultural and natural strata are formed in order to interpret cultural resource data and to evaluate their importance. The formation of layers and the creation of new feature interfaces create archaeological strata that represent the sequence of events that have occurred at a particular site. Cultural resource deposits reflect periods of continuous use, as well as intervals of transition in site occupation and use. Continuous use of a site creates a gradually accumulated layer of deposition, such as sheet refuse or an ash layer, over a period of months, years, or thousands of years. Deposits of these types allow archaeologists to examine research issues including those that relate to change over time (i.e. diachronic changes). In contrast, other cultural resource deposits are created during events of transition. Catastrophic occurrences, such as floods or fires, and human activity, such as digging a hole or filling a pit, mark intervals of transition. Knowing this allows for the assessment of the integrity of a site. If a site has lost its integrity and its contents have been mixed or disturbed, then the site has limited interpretive value because archaeological interpretations are based on the associations between a site's constituents and its depositional context.

5.2.3 Context of Evaluation

This research design is based on a contextual approach, which emphasizes the specific historical, social, and cultural behaviors contributing to the creation of cultural resource sites. Through this approach, an

archaeologist can examine cultural processes on a small scale, at the level of the mundane and day-to-day activities and experiences that together form a society's broader patterns of development. Use of a contextual approach requires the development of an historic context within which to place the activities that have led to the creation of a cultural resources site. A historic context for a cultural resource deposit might include information about specific characteristics of an individual or group, such as ethnicity and profession, as well as information about the political, social, and economic climate of the larger society, and it may address technological trends relating to site formation processes and site components.

5.2.4 Objectives

The objectives of archaeological investigations for this Project may include determining site boundaries, function, data potential and evaluating the historical significance of archaeological resources, if present. Research topics for prehistoric archaeological resources may revolve around the following themes: refining cultural chronology, site formation processes, and the prehistoric adaptations evidenced at the site. Cultural resource research topics for historic archaeological resources revolve around settlement and land use, consumer behavior, and social identity and status.

5.2.5 Refining Cultural Chronology

Refinement of the cultural chronology is an important aspect of archaeological investigations to any area. Since there have been relatively few excavations in the vicinity of the Project Area, it is important to collect any available data that may help to clarify how Native American culture may have changed over time, particularly in reaction to political and environmental changes.

5.2.6 Chronological Data

Collecting chronological data is a prerequisite to analyzing changes in settlement systems. Radiocarbon dating – using charcoal, shell or other organic matter from clearly cultural contexts, such as features or occupation surfaces – is the preferred method of dating a prehistoric archaeological site or component. Cross dating of temporally diagnostic artifacts, such as beads or projectile points, and obsidian hydration analysis can also provide chronological data; although the resolution is typically lower than for radiocarbon dating.

5.2.7 Requisite Data

If archaeological resources are discovered that cannot be avoided, specific information should be recovered during mitigation to facilitate the interpretation process. This information may include, but is not limited to evaluating areas of moderate and high artifact densities; determining the vertical limits of the site; the presence of intact, sub-surface, and/or stratified deposits; site structure; and site formation processes. One of the more traditional and standard means of recovering this information is through the archaeological excavation of test units. Specific data requirements are those related to chronology, lithic technology, tool stone procurement, fauna and archaeobotany. Site or component function can usually

be elucidated through analysis of lithic technology, faunal and archaeobotanical remains, as well as cultural features.

Lithic Data

There are various relationships between lithic technology and land-use strategies. In simplified terms, mobile foragers are expected to employ a formal technology in which bifaces are important for their portability and multiple functions; more sedentary people tend to use a relatively expedient technology. Lithic technological data can be generated through functional, morphological, and technological analyses of debitage and tools; these data form the foundation for other analyses such as measurements of assemblage diversity and other intra- and inter-site comparisons. Reliable analyses are dependent upon sufficient sample sizes.

Faunal Data

Faunal data directly reflects subsistence practices. Numbers of identified species represented per assemblage provides a qualitative measure of animal selection, which, when compared with other sites/components, can indicate spatial or temporal changes in resource selection, seasonability, availability and over-harvesting.

Archaeobotanical Data

Cultural botanical remains provide direct evidence of subsistence and seasonality, and can contribute to understanding site function(s). Flotation of soil samples from cultural features and macrobotanical identification of floral specimens are necessary to acquire this information. Vegetal resources played important roles in many areas; as mobility decreased, use of plant remains intensified and cultural landscapes were more fully maintained.

Osteological Data

Osteological analysis of human remains present within the archaeological site can be used to reconstruct the age and sex composition of a population, their mortality rates for different ages, length of life, population size, effects of nutrition and disease on demography, and exploring changes in diet and health. The mortality rate of a population and documenting evidence of inter-personal violence can also help to understand and interpret the overall health and demography of a population.

5.2.8 Data Collection Methods

Shovel Test Probes (STPs), Excavation Units (EUs), and backhoe trenching may be employed to determine site boundaries. Hand excavation would be used to expose features and human remains. All soils would be screened through 1/4-inch or 1/8-inch hardware mesh depending on the nature of the resource. Wet screening is preferable, but dry screening may be employed as dictated by the deposit or as the situation allows. Samples of bone, shell, charcoal and soils would be collected and submitted for radiocarbon dating, using specific radiocarbon collection strategies. Flotation samples would also be bagged separately. All recovered cultural material, including historic artifacts, faunal remains, ecofacts,

and organic materials, would be inventoried, processed, and analyzed. Cultural artifacts collected for laboratory analysis would be bagged and labeled with the complete excavation provenience (site number, the unit number, grid location, level depth), including the excavator's name and date. All artifacts collected and bagged in the field would be washed and re-bagged according to artifact type prior to being sent to the laboratory for cataloging and analysis. Artifacts would be cataloged, classified, weighed, measured, numbered, and photographed following professional standards.

Historic materials will be cataloged separately from prehistoric materials following functional categories generally accepted for late nineteenth century sites. The assemblages will be analyzed with reference to functional and morphological attributes, enabling chronological indicators and descriptions to be made for classes of artifactual and ecofactual materials. The historical archaeological collection will be cataloged and processed using standard historic material type categories: shell, animal bone, botanical remains, ceramics, glass, metal, architectural debris (brick, concrete, wood, etc.) and miscellaneous small personal items.

Time-sensitive artifacts, such as projectile points, shell beads and historic artifacts with "maker's marks" or a dateable manufacturing process, will be classified following appropriate typological schemes, and summarized by unit and depth. This information in conjunction with other data is used to assess depositional integrity and to define temporal components.

5.2.9 Research Questions

Research questions that can be addressed by data from the potential archaeological sites present within the Project Area are outlined below. Prehistoric archaeological research will revolve around the broad themes of chronology, settlement patterns and land use, site function and demographics. Historic archaeological research will revolve around chronology, settlement and land use, and consumer behavior, social identity and status.

Site Formation Processes- Prehistoric and Historic Periods

What site formation processes have been active on the site? Are features and artifacts in a primary context or have they been disturbed and redeposited?

The identification of context and site formation involves systematic observation during excavation in order to recognize regional and locally specific processes and their effects. An analysis of site formation processes helps to establish site integrity of deposits and features and directly affects all cultural and behavioral interpretations. It is also crucial when evaluating if a cultural resource meets the eligibility requirements of the NRHP.

Chronology- Prehistoric and Historic Periods

What is the temporal range of deposits at the site? How does it relate to others in the region and does it support existing regional chronology?

Chronology is best established through radiocarbon and obsidian hydration dating. Stratigraphic analysis and site formation analysis are used to evaluate the integrity of the results from various tests such as radiocarbon and obsidian hydration dating. X-ray florescence (XRF) to identify obsidian sources allows for each hydration result to be calibrated. Testing material found in primary context and in association with intact features is preferable. The identification of temporally diagnostic artifact types and features also help establish temporal association (e.g., shell beads, projectile points, charmstones, makers' marks on ceramics and glass bottles and their manufacturing process).

Settlement Patterns - Prehistoric Period

Do the sites or features represent variation in the group size or length of occupation?

Datasets necessary to address settlement patterns would include artifact analysis to determine possible increases or decreases in abundance of artifacts and radiocarbon dating using charcoal, faunal bone, and/or shell may help to decipher how long a site was occupied.

Exotic Materials and Trade - Prehistoric Period

Does the presence of shell or lithic artifacts indicate either contact with groups outside the area or travel outside the area? What are the sources of the various materials used on site (e.g., Napa Valley, Konocti, Annadel obsidian)? Did preferences for specific sources vary over time and how does it compare with other sites in the region?

Datasets that include analysis of distinctive artifact types, such as projectile points, beads, ornaments or other exotic materials representative of a particular culture may be useful for indicating trade patterns and practices with other groups. XRF analysis of obsidian can demonstrate where the raw material was obtained. The presence of obsidian temporally distinctive projectile points within a site can be analyzed for possible diachronic changes of obsidian sources.

Dietary Reconstruction - Prehistoric Period

What subsistence patterns can be identified from archaeological deposits? What were the primary dietary resources utilized and do changes in dietary remains suggest change in environment or resource exploitation over time?

Preserved floral and faunal remains offer the best opportunity to examine subsistence strategies and how they may have changed over time. Recovering both floral and faunal remains may require flotation of column samples and requires the identification of macrobotanical and faunal remains and statistical analyses for intrasite comparison. Changes in the quantities of tools (e.g. flaked tools vs. ground stone) within an assemblage and tool use (through lithic tool use-wear studies) can also be beneficial methods to elucidate subsistence questions. This requires analyzing and classifying bone and shell tools and artifacts, and carefully excavating features and screening soil through fine-mesh (e.g., to recover such evidence as obsidian microflakes indicative of knapping). Other datasets that may help to reconstruct diachronic environmental changes include protein residue and pollen and phytolith studies, which can indicate changes in plant and animal species at a site over time.

Demography, Health, and Violence - Prehistoric Period

What is the demographic profile of the population? What was the health of the burial population and how did it change over time? What is the nature of inter-personal violence and did it change over time?

Osteological analysis of human remains present within the archaeological site can reconstruct prehistoric life ways, the age and sex composition of a population, their mortality rates for different ages, length of life, population size and effects of nutrition and disease on demography. Field recording of burial position, orientation and associated features and artifacts is important in evaluating life ways. Making standard laboratory observations of age, sex, and pathology reflect demographics and health status of the population. Recording nonmetric traits can help identify biological distance among and within populations, as well as the effects of the surrounding environment. Metric analysis helps to determine stature, sexual dimorphism, and population differences. The identification of pathologies and trauma also assist in evaluating populations' overall health and inter-personal relations.

Settlement and Land Use - Historic Period

How was the land used in the historic period and did land use change over time?

Addressing these questions would require the identification of discreet features, such a domestic refuse pit, and the analysis of associated artifacts to establish function, and/or landscape features such as fences, roads, trails, pastures or orchards. Integrating feature information to determine land use strategy at different times is also important.

Consumer Behavior, Social Identity and Status - Historic Period

Does the historic artifact assemblage reflect the known availability of various consumer goods during a particular time and at a particular place? Do historical resources provide information on consumer practices of any particular social, economic, or ethnic group?

Shifts in homegrown foods to store-bought foods and other consumer products can best be illustrated by types and quantities of data sets that include faunal and other food remains and historic artifacts that provide evidence of subsistence, including food storage vessels such as bottles, canning jars, tin cans, and ceramic crockery. Domestic items, such as cooking and eating utensils, tableware, and personal items are other important indicators of consumer behavior. Analysis of historic artifacts has the potential to provide information about social and economic status (e.g., the presence of fine porcelain versus plain whiteware tableware). Imported manufactured goods may help to identify ethic identities and supply information on the cultural maintenance within a specific group.

6.0 CULTURAL RESOURCES MONITORING PLAN

Due to Project Areas high prehistoric archaeological sensitivity, archaeological monitoring by a Secretary of Interior-qualified archaeologist is recommended during Project-related earth-disturbing activities that have the potential to encounter such resources.

The following sections outlines the monitoring protocols and procedures that will be implemented during archaeological monitoring and lists the key personnel who will act as EDS Project Manager (PM), Principal Investigator (PI) and archaeological monitors. It also outlines the procedures that will be implemented in the event that human remains are encountered during earth-disturbing activities.

6.1 MONITORING PROTOCOLS AND PROCEDURES

To address the possibility that unidentified but potentially significant archaeological resources may be encountered during Project-related earth-disturbing activities monitoring protocols and procedures have been developed. Monitoring is defined as active observation of earth-moving or work that could adversely affect cultural resources with the Project Area.

An archaeological monitor is recommended during Project-related earth-disturbing activities that have the potential to encounter archaeological resources (i.e. non fill soil), whether previously disturbed or not, to ensure that archaeological resources, if present, are identified and treated following the Secretary of Interior Standards. Archaeological monitoring shall continue until the archeological monitor or PI determines that cultural resources are unlikely to be encountered. The archaeological monitoring program followed throughout the construction process may include a range of procedures including full-time monitoring, part-time monitoring or spot checks.

- Full-time monitoring will occur during the entire workday and continued on a daily basis until the excavation within native soil in a given area has reached a depth at which resources are not likely to occur or until the archaeological monitor or PI determines that full-time archaeological monitoring can be scaled back to part-time monitoring, spot checks, or is no longer warranted.
- Part-time monitoring will occur during part of a workday. Part-time monitoring will be conducted when a specific excavation activity occurring within native soil on any given day has the potential to uncover archaeological resources.
- Spot checks consist of a field inspection of the progress of excavation over the course of the project. During spot checks all spoils, open excavations, recently graded areas, and other soil disturbances are inspected. The frequency and duration of spot checks is based on the relative sensitivity of the exposed soils and active work areas as determined by the archaeological monitor or PI.

Earth-moving activities include all construction ground disturbances, including, but not limited to grading, boring, and trenching. Excavation solely within fill soil (e.g., soil that has been brought onto the Project site for the purpose of development) will not be monitored by an archaeologist.

If the archaeological monitor or PI determines that full-time monitoring is no longer required in specific locations, an e-mail detailing the reasons for changing the level of monitoring shall be provided to the Project construction manager and/or the Client[7].

At a minimum, the monitoring archaeologist, PI or PM shall consult daily or weekly with the Project construction manager and/or Client to confirm area(s) to be worked during the following week until ground disturbance is completed, or it is determined that archaeological monitoring is no longer warranted. The Project construction manager and/or Client shall promptly notify the archaeological monitor or PM of any changes to the scheduling of the construction phases.

Archaeological resource monitoring activities are the responsibility of the PI and the archaeologist assigned to monitor ground-disturbing activities. Any interference with monitoring activities, removal of a monitor from duties assigned by the PI, or direction to a monitor to relocate monitoring activities by anyone other than the PI shall be considered noncompliance.

6.2 MONITORING PERSONNEL AND COMMUNICATION PROCEDURES

6.2.1 Monitoring Personnel

A Secretary of Interior-qualified archaeologist shall monitor project ground-disturbing activities. The role of PI and PM will be assigned to Ms. Sally Evans, M.A., who is a Registered Professional Archaeologist (RPA #29300590) and exceeds the minimum qualifications of the Secretary of Interior standards. Ms. Evans will be supported by Mr. Gilbert Browning M.A. RPA (RPA #36826964). Other individuals on the team, who also exceed the minimum qualifications as archaeological monitors may assist with the Project mitigation and monitoring.

The archaeological monitor(s) will have access to a full complement of supplies that include a GPS unit, hand trowel, pin flags, caution tape, shaker screen, shovel, cell phone, digital camera, maps and all other supplies necessary to effectively complete the construction monitoring task. Hard hats, boots, high visibility reflective vests, ear plugs, gloves, and safety glasses will be part of the monitor's attire.

6.2.2 Work Curtailment Procedures

The archaeologist shall monitor on a full-time basis, initial project-related earth-disturbing activities within the project Area that have the potential to disturb native soil, including, but not limited to grading, boring, trenching, and other earth-disturbing activities within the Project Area that penetrate native soil whether previously disturbed or not. If the archaeological monitor or the PI determines that the level of monitoring requires a different level of intensity, which could include the need for additional monitors or reducing to spot-check monitoring only, then a letter or an email describing justification for the change in monitoring procedures shall be drafted by the PI or PM to the Client for approval.

[7] The Client is the Project applicant or owner who is responsible for the development or in charge of overseeing the development.

The archaeological monitor(s) and PI have the authority to halt construction in the area of a discovery to ensure that an archaeological resource is protected from further impacts. If necessary, the instruction to suspend an activity can be given directly to a heavy equipment operator or to a crew member. If the monitor determines that a potentially significant archaeological resource has been encountered, all work within 25 feet of the discovery area shall be redirected and the excavated area and any back dirt will be secured. In cases where the objects or materials are determined to be non-significant, work will be allowed to resume immediately.

If potentially significant archaeological resources are encountered, as soon as the immediate danger to it is abated, the archaeological monitor will report the discovery of the resource directly to the PI and the appropriate contractor to explain the action taken, why it was necessary, and the subsequent actions to be taken. The PI acts as the party responsible for all cultural resource issues and will immediately report any issues to the Project construction manager and/or the Client.

The halting or redirection of construction activities in a discovery area shall remain in effect until the PI and the Client have conferred and determined if avoidance is possible. If avoidance of the potentially significant archaeological resource is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the NRHP (see Section 2.2 for eligibility requirements). If the deposit is found not eligible, mitigation is not necessary. If the deposit is eligible, adverse impacts on the deposit shall be mitigated. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and a technical data recovery report at a curation facility. Upon completion of the assessment, the archaeologist shall prepare a report to document the methods and results of the assessment. The report shall be submitted to the City of Richmond and the NWIC upon completion of the resource assessment.

If data recovery or other mitigation measures is required, additional archaeological monitors shall continue to monitor construction activities, if needed, while mitigation of the resource is performed. All necessary and required data recovery and other mitigation shall be completed as promptly as possible after the discovery of any previously unknown cultural resource unless all parties agree to additional time.

In the event of an archaeological resource discovery, avoidance measures such as flagging or fencing (or in case of human remains steel plating) will be used to prohibit or otherwise restrict access to sensitive areas.

6.2.3 Procedures for the Discovery of Archaeological Resources

In the event that an archaeological resource is uncovered during construction and the archeological monitor is not on site, employees shall halt work on their own in the vicinity of a potential archaeological resource discovery (all excavation and earth moving activities within 25 feet) and

immediately contact their supervisor or foreman and EDS. The relocation or redirection of work will be determined by the Client and/or construction supervisor and the archaeological monitor or PI.

The archaeological monitor will assess whether the discovery is potentially significant and report to the PI. If the discovery is of a potentially significant archaeological resource, then EDS will follow the procedures in the mitigation plan as summarized in this report and will notify the Project construction manager and/or the Client within 24 hours. The Project construction manager and/or the Client will notify the construction personnel to begin work again in the vicinity of the resource only after mitigation has occurred.

If the discovery is determined by the archaeological monitor or PI[8] to be human remains, the monitor or the PI shall contact the Project construction manager and/or Client immediately. The archaeological monitor or the PA shall contact the Contra Costa County Coroner's Office immediately. The coroner may consult with the archaeological monitor or PI who identified the remains as human. The human remains will be secured immediately with steel plating. The San Mateo County Coroner must be contacted upon each occurrence of human remains identified within the Project Area.

- San Mateo County Coroner: (650) 312-5562
  Robert Faucrault, Coroner
  RFoucrault@smcgov.org
  50 Tower Road, San Mateo, CA 94402

California Health and Safety Code 7050.5 establish intentional disturbance, mutilation or removal of interred human remains as a misdemeanor. It requires that further excavation or disturbance of land, upon discovery of human remains outside of a dedicated cemetery, cease until a county coroner makes a report. It requires the county coroner to contact the Native American Heritage Commission (NAHC) within 24 hours if the coroner determines that the remains are not subject to his or her authority and if the coroner or their consultant recognizes the remains to be those of a Native American.

Native American Heritage Commission and Most Likely Descendants (MLD)

Public Resource Code §5097.98 requires the NAHC, upon notification by a county coroner, to notify the most likely descendants (MLD) regarding the discovery of Native American human remains. It enables the MLD, within 48 hours of notification by the NAHC, to inspect the site of the discovery of Native American human remains and to recommend to the landowner or the person responsible for the excavation work means for treating or disposition, with appropriate dignity, the human remains and any associated grave goods. In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition within 48 hours, or the landowner rejects the recommendation of the descendant, PRC §5097.98 requires the owner of the land to reinter the remains and associated grave

[8] The PI for this project is a bioarchaeologist who is trained on the identification and analysis of human remains in archaeological contexts.

artifacts with appropriate dignity on the property in a location not subject to further disturbance. The re-burial location is to be documented and reported to the NAHC and the NWIC.

If a dispute arises between the landowners and the MLD related to the treatment and disposition of Native American human remains and associated grave artifacts, the NAHC will mediate the dispute. If the landowner does not accept the MLD's recommendations for treatment of the remains, the owner or the MLD may request mediation by the NAHC. The NAHC may also assist landowners in developing agreements with MLDs to ensure protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction, and provide for sensitive treatment and disposition of Native American burials, skeletal remains, and associated grave artifacts in a manner consistent with the planned use of, or the approved project on, the land.

Under SB 447 (Chapter 404, Statutes of 1987) it is a felony to obtain or possess Native American remains or associated grave artifacts except as otherwise provided by law or in accordance with an agreement reached pursuant to PRC §5097.94 or § 5097.98. Any person who removes, without authority of law, any Native American artifacts or human remains from a Native American grave with intent to sell or dissect or with malice or wantonness is guilty of a felony which is punishable by state imprisonment.

Consultation with the MLD, PI, and the Client shall determine the appropriate treatment and level of analysis of any human remains discovered within the Project Area.

6.2.4 Native American Participation

Important prehistoric archaeological materials and Native American human remains could be disturbed if prehistoric archaeological deposits are encountered during project construction. Currently, Native American monitoring is not recommended for the Project. However, the presence of a Native American monitor is recommended if prehistoric resources are encountered during earth-disturbing activities.

If human remains are discovered during monitoring or mitigation activities, then the specific guidelines, protocol, and channels of communication outlined by the California NAHC (1991), and in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resource Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and SB447 (Chapter 44, Statutes of 1987) will be followed. Section 7050.5 (c) will guide the MLD and Native American involvement, in the event of discovery of human remains.

6.2.5 Reporting Procedures - Daily Log, Weekly and Monthly Reports

During the monitoring period, a daily log will be completed for each day that monitoring that is conducted. The log will track earth-moving activities, detail archaeological discoveries, and other actions taken including noncompliance issues.

Cultural Materials Considered Less than 50 Years of Age

All of the cultural materials listed below are less than fifty years of age and, unless of exceptional significance, will not be considered potentially significant cultural resources. The following materials will not be reported unless exceptional:

- Plastic products limited to Styrofoam® and other foamed polystyrene products, Velcro®, Teflon® coated cookware, polyvinylchloride (PVC) pipe, high-density polyethylene, polypropylene, polyimide, thermoplastic polyester, linear low-density polyethylene, liquid crystal polymers, and products marked with resin codes.
- Cans made from aluminum or bi-metal, or those with pull-tab or push-tab (metal or plastic) openings.
- Aluminum foil containers.
- Synthetic tires, car parts.
- Modern electronics (CD players, VCRs, electronic appliances, personal electronics, computers, printers, and associated parts).
- Compact disks, floppy computer disks, magnetic tape media.
- Unidentifiable metal fragments.
- Rubber and rubberized metal.
- Clothing or shoes made of plastic or synthetic materials.
- Modern bottles and other similar containers

Any materials that are found with materials older than 50 years will be reported.

6.3 FIELD RECORDATION AND MITIGATION PLAN

6.3.1 Cultural Materials Considered 50 Years of Age or Older and Not Human Remains

In the event that potentially significant archaeological resources are uncovered during construction the following procedures will be followed:

1. Excavation work or any other earth-moving activities within 25 feet, or greater if deemed necessary by the archaeological monitor to protect the archaeological resource, will halt and be redirected.

2. If there is no archaeological monitor on site, the workers will stop work in the area and notify the site/area supervisor or construction manager who will then immediately notify the PI or PM.

3. If the archaeological monitor or bioarchaeologist determines that the discovery includes human remains, those remains will be treated under the protocol for treatment of human remains (see section 6.2.3).

4. The archaeological monitor will notify the PI of the discovery.

5. If the PI determines the discovery qualifies for prescribed treatment, then the procedures in section 6.3.4 will be followed.

6. If the discovery does not qualify for prescribed treatment, procedures outlined in Section 6.3.5 (below) will be followed. Excavations where archaeological material has been discovered will not be back-filled until the archaeological monitor or PI approves the back-filling. If the area needs to be secured, this will be done by plating, fencing, or other temporary measures approved by the archaeological monitor or PI. Steel plates should be made available by the contractor for this purpose.

6.3.2 Expansive Exposure of Discovered Resources is Possible

In some cases, broad excavations are possible within a linear right of way (ROW) (when ROW is through open land). When discoveries are made in areas where investigations can be made over broad areas the following will be completed:

1. The horizontal and vertical boundaries of the deposit will be defined.

2. The stratigraphic relationships and depth of the deposit will be defined.

3. The content of deposit, i.e., the date range and information potential, will be investigated by means of subsurface testing.

4. Sufficient information will be gathered to make a recommendation of eligibility utilizing the research design outlined in Section 5.0 (refining research design if necessary).

5. The site will be recorded on Department of Parks and Recreation (DPR) 523 forms that will include a location map, a scaled drawing, and a photograph of the resource.

6. An eligibility recommendation will be made for the resource on the form.

7. If the find cannot clearly be recommended as eligible or ineligible for the NRHP, the deposit will be assumed eligible.

8. The PI will develop a data recovery program based on the research design that reflects the information potential identified by the subsurface testing. If the PI determines that the find is eligible for the NRHP, then all mitigation required will be completed prior to continuation of construction in the area of the discovery.

6.3.3 Expansive Exposure of Discovered Resources is Not Possible

When discoveries are made in trenches within public roadways or areas where access is restricted, the possibility of completing a thorough evaluation of a discovery may be limited. Safety considerations may constrain excavation or testing of a cultural resource. Access to resources discovered at depth in a trench should not automatically be considered restricted. If there is a question about whether access is restricted, the PI, Project construction manager and Client will consult and determine if the access is restricted.

In cases where exposure of the resource is limited, evaluation of a portion of a site or deposit for the NRHP may not be sufficient to allow an eligibility recommendation of the entire resource. The following information will be gathered:

1. The horizontal and vertical boundaries of the deposit or resource will be defined to the extent possible.

2. The stratigraphic relationships and the depth of the deposit will be identified by using subsurface testing. The content of the deposit, i.e., the date range and information potential, will be investigated. Where access is limited, the content and the date of the deposit (if possible) will be described, and the information potential will be evaluated, utilizing the research design described herein.

3. The site will be recorded on a Department of Parks and Recreation (DPR) 523 form, including a location map, a scaled drawing, and a photograph of the resource.

4. If horizontal excavation is extremely limited, and the find cannot clearly be recommended as eligible or ineligible for the NRHP, the deposit will be assumed eligible. The deposit will be treated by preparing DPR 523 forms to provide a record of the find, including a location map, a scaled drawing, and a photograph of the resource; and by developing a limited data recovery program based on the research design described herein. All mitigation will be approved by the Client and completed prior to continuation of construction in the area of the discovery.

6.3.4 Prescribed Treatment of Cultural Resource Discoveries

Any discovery that contains human remains will not be subject to this protocol.

For some classes of resources, treatment (mitigation) can be agreed upon before starting construction on the Project. Defining the resource classes and treatments prior to starting any ground disturbing activities can limit delays in the construction schedule. When resources over 50 years of age are discovered, prescribed treatment for the classes of resources listed below consists of the following:

1. Construction is halted in the immediate vicinity of the find, and the archaeological monitor records the find on DPR 523 forms, including a location map and a photograph record.

2. The PI or PM notifies the Project construction manager and the Client of the find within 24 hours.

3. Notification includes a description of the resource, a statement that it qualifies for prescribed treatment, and that the treatment has been completed.

4. Construction can resume when the archaeological monitor completes documentation and all concerning parties have been notified.

Classes of Prehistoric Period Archaeological Resources Eligible for Prescribed Treatment

- Small, sparse (less than 3 pieces per square meter) scatters of lithic debitage that lack depth (less than ten centimeters).
- Sparse occurrences of fragments of fire-affected rock (less than 3 pieces per square meter, with no other cultural constituents).
- Sparse occurrences of fragments of baked or vitrified clay (less than 3 pieces per square meter, with no other cultural constituents).
- Small midden remnants (smaller than 1-meter x 1 meter) that lack depth (less than 10 centimeters). If charcoal, bone or other diagnostic elements are found in the midden, or the deposit is exceptional as determined from associated artifacts, the midden and associated diagnostic elements will be treated following Section 6.3.5.
- Small clusters (less than 1-meter x 1 meter in size) of unidentifiable shell (whole or fragmented). If artifacts, rock material not native to the area (manuport) or other materials are found, the shell and associated deposit will be treated following Section 6.3.5.

Classes of Historic Period Archaeological Cultural Resources Eligible for Prescribed Treatment

- Roadside disposal of debris.
- Small, isolated artifact concentrations (fewer than 20 artifacts or the fragments of fewer than three objects) with no potential for subsurface deposit.
- Concrete, brick, or other building materials that lack structural integrity and are part of a documented disturbed (redeposited) context.
- Metal, concrete, or ceramic pipes, conduits, or culverts that lack structural integrity.

Prescribed Treatment for Diagnostic and Exceptional Isolated Finds

Certain isolated finds are subject to special treatment. They include diagnostic prehistoric artifacts, intact, unusual historic-period artifacts greater than 50 years old, and other exceptional artifacts (high quality, unique, or labeled examples, e.g., mortars, pestles, projectile points, ornaments, embossed bottles, decorated or maker-marked ceramic vessels, or dated/inscribed metal objects). Diagnostic artifacts are defined as items that are indicative of a particular time and/or cultural group.

Examples of diagnostic artifacts include:

	Lithics	Groundstone	Beads/Pendants	Other
Prehistoric Artifacts	Points	Mortars	*Olivella* shell	Baked clay figurines
	Scrapers	Pestles	Abalone shell	Ear spools
	Drills	Mano	Stone	Bone tools
	Blanks	Metate	Bone	Pipes
		Net Sinkers	Other types of shell	Charmstones

	Ceramics	Glass	Identifiable metal	Other
Historic Artifacts	Decorated	Cut	Tools	Buttons
	Rim sherds	Pressed	Gun parts	Marbles
	Basal sherds	Decorated	Machine parts	Pipes
	Maker's marks	Vessels bases and lips	Hinges	Figurine, doll parts
	Complete vessels	Labels	Nails	Saw cut/butchered bone
	Insulators	Complete vessels	Buckles	
		Insulators	Flatware	
			Wagon hardware	
			Horse tack, shoes	

Diagnostic artifacts will be treated as follows:

1. Construction is halted within 25 feet while the archaeological monitor records the find on a DPR 523 form, including a location map and a photograph.
2. The isolate is collected and will be curated.
3. The PI or PM notifies the construction supervisor and/or Client of the find within 24 hours. Notice includes a description of the resource and a description of the steps taken to determine that it was truly spatially isolated and not part of a larger deposit that would be treated according to Section 6.3.5.
4. Construction can resume when the archaeological monitor completes documentation.
5. All isolates will be listed and described in the associated final monitoring report.

6.3.5 Potentially Significant Cultural Resources Not Eligible for Prescribed Treatment and That Warrant Further Evaluation

Except for the materials listed in Section 6.3.4, all other cultural resource materials must be treated individually, as significant or potentially significant discoveries. Individual treatment consists of the following steps:

1. The archaeological monitor halts construction within 25 feet of the find and secures the discovery area and associated back-dirt (spoils).
2. As soon as the immediate danger to it is abated, the archaeological monitor will report the find directly to the PI and the appropriate contractor to explain the action taken, why it was necessary, and the subsequent actions to be taken.
3. The PI or PM notifies the Client of the find within 24 hours.
4. The archaeological monitor records the find on a DPR 523 form, including a location map and a photograph record.
5. The PI provides the Client with a recommendation to avoid impacts to the resource.

6. If avoidance is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the NRHP (see Section 2.2 for eligibility requirements). EDS will provide a scope of work and cost estimate for eligibility testing within 48 hours of the decision that avoidance is not feasible, unless more time is required.

7. If the deposit is found not eligible for the NRHP, mitigation is not necessary, and excavation can resume immediately.

8. If the deposit is determined eligible for the NRHP, adverse impacts on the deposit shall be mitigated via a data recovery plan. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan using standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and report at a curation facility. Construction shall continue to be suspended in the discovery area until any further data recovery and mitigation has been completed.

6.4 CURATION

The Client will assume responsibility for any funding requirements related to the accessioning of archaeological materials and the data recovery report at a curation facility. Artifacts will be cataloged using protocols acceptable to the David A. Fredrickson Archaeological Collections Facility at Sonoma State University, which is the curation facility recommended by EDS for any archaeological discoveries that result from this Project.

6.5 TECHNICAL REPORTING

Ninety (90) business days after the completion of all ground disturbance including landscaping and/or data recovery (if required), and data analyses, a final Cultural Resources Monitoring Report (CRMR) will be produced under the direction of the PI. If data recovery and data analysis occur, the report will comply with the Secretary of the Interior's Standards for Archaeological Documentation. A draft report will be provided to the client for one round of comments. The final report will be submitted to the client and the NWIC. The report will include DPR 523 forms for any newly discovered sites within the Project Area.

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State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

May 23, 2019

Refer to HUD_2019_0426_002

Mr. Ken Cole, Director
Department of Housing
County of San Mateo
264 Harbor Boulevard, Building A
Belmont, CA 94002-4017

Re: Gateway Family Housing Redevelopment Project at 1345 Willow Road, Menlo Park, CA

The California State Historic Preservation Officer (SHPO) received the above referenced submittal for our review and comment pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations found at 36 CFR Part 800. The regulations and advisory material are located at www.achp.gov.

Undertaking
You have informed us that the County of San Mateo and the MidPen Housing Corporation (MidPen) intend to use Project-Based Section 8 Vouchers from the U.S. Department of Housing & Urban Development (HUD) to demolish 17 existing buildings containing 82-units of affordable housing and redevelop the 2.96 acre site with a new 140 unit affordable housing property.

Area of Potential Effects (APE)
The County defined the APE for this undertaking as the subject parcel and adjacent parcels. We believe the County has defined a reasonable APE for the undertaking.

Identification of Historic Properties
The County utilized documentation prepared by AEM Consulting for this Section 106 consultation. AEM conducted a survey of the built environment for the APE. Documentation provided in the AEM survey evaluated eighteen single-family residential properties within the APE for listing in the National Register. Based on the report prepared by AEM, the County determined all eighteen buildings ineligible for listing. We concur with the County's determination that following Menlo Park properties are not eligible for listing in the National Register of Historic Places:

- 1320 Carlton Avenue
- 1324 Carlton Avenue
- 1328 Carlton Avenue
- 1332 Carlton Avenue
- 1334 Carlton Avenue
- 1352 Carlton Avenue
- 1356 Carlton Avenue

- 1360 Carlton Avenue
- 1368 Carlton Avenue
- 1372 Carlton Avenue
- 1376 Carlton Avenue
- 1380 Carton Avenue
- 1388 Carlton Avenue
- 1392 Carlton Avenue
- 1394 Carlton Avenue
- 1396 Carlton Avenue

AEM also completed a records search at the North West Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The archeological sensitivity assessment completed by the NWIC establishes that the APE is highly sensitive for both prehistoric and historic era archeological resources. The NWIC recommends additional archeological survey and testing of the area, which may need to occur once demolition has begun. Should these additional identification efforts need to wait for demolition to begin, the County must enter into a project level programmatic agreement with consulting parties, including the CA SHPO, to memorialize when and how additional testing and review will take place. At this time, either the County must continue efforts to identify and evaluate potential subsurface historic properties and continue consultation with our office based on those efforts; or, the County should begin consultation with our office for the development of a programmatic agreement that will memorialize plans for additional phased identification efforts and future assessment of effects. Please inform us of how the County wishes to proceed.

Assessment of Effects
The County has made a finding of no historic properties affected for this undertaking. We object to the County's finding at this time based on incomplete archeological identification and evaluation efforts in the APE, but will reconsider that objection once we have the opportunity to review and comment on the results of the additional archeological study, or a programmatic agreement for the undertaking is developed.

Please be advised that at this time the County of San Mateo's Section 106 consultation obligations for this undertaking are not complete. We look forward to continuing consultation for this undertaking. If you have any questions, please do not hesitate to contact Shannon Lauchner, State Historian II, with the Local Government & Environmental Compliance Unit at (916)445-7013 or by email at shannon.lauchner@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

DEPARTMENT OF HOUSING
COUNTY OF SAN MATEO

Main Office - Department of Housing
264 Harbor Blvd., Building A, Belmont, CA 94002-4017

Housing & Community Development (HCD)
Tel: (650) 802-5050

Housing Authority of the County of San Mateo (HACSM)
Tel: (650) 802-3300

Board of Supervisors:
Dave Pine
Carole Groom
Don Horsley
Warren Slocum
David Canepa
Director: Ken Cole

April 25, 2019

Julianne Polanco
Office of Historic Preservation
Department of Parks & Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Request for Section 106 Review: Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025

Dear Ms. Polanco,

MidPen Housing Corporation (MidPen) proposes to use funding from the U.S. Department of Housing and Urban Development (HUD) as administered by the County of San Mateo to redevelop, at a higher density, an existing affordable housing project known as Gateway Family Housing located on an almost three acre site with address 1345 Willow Road in Menlo Park, California.

Enclosed are materials to identify and evaluate historic properties within the Area of Potential Effects of this undertaking under Section 106 of the Historic Preservation Act and its implementing regulations at 36 CFR Part 800. As the Agency Official for this project, I request your views regarding the effect of the project upon historic properties.

AEM Consulting has been engaged to prepare the federal environmental review under NEPA and 24 CFR Part 58, HUD Environmental Review Regulations, prior to use of federal funds. AEM will be pursuing other related federal consultations necessary for the project on behalf of the County of San Mateo.

Upon reviewing the attached Historic and Cultural Resources Evaluation, I concur with the description of the undertaking and its Area of Potential Effects. I also concur with the determination recommended, which is no effect to historic properties as defined for Section 106, i.e., eligible for the National Register of Historic Places. Please contact me if you have any questions or need additional information. Thank you.

Sincerely,

Ken Cole, Director
Department of Housing
County of San Mateo
650-802-5024
kcole@smchousing.org

Enclosure: Historic and Cultural Resources Evaluation of Gateway Family Housing

HISTORIC & CULTURAL RESOURCES EVALUATION
HISTORIC RESOURCES EVALUATION FOR SECTION 106 REVIEW:
GATEWAY FAMILY HOUSING

1345 Willow Road, Menlo Park, San Mateo County, California 94025

April 2019

AEM Consulting
422 Larkfield Center #104
Santa Rosa, California 95403
(707) 523-3710

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Background

This report will summarize the information necessary for Section 106 Review of the proposed Gateway Family Housing project in Menlo Park, California. The project qualifies as a federal undertaking in that Federal funds currently provide rental subsidies to the project in the form of Project-Based Section 8 Vouchers, a program of U.S. Department of Housing and Urban Development. The County of San Mateo is the Responsible Entity for compliance with the National Environmental Policy Act on behalf of the Housing Authority, including compliance with the Historic Preservation Act. Review is being prepared pursuant to 24 CFR Part 58, of HUD's environmental regulations. The appropriate level of review in this case is an Environmental Assessment.

To achieve a Finding of No Significant Impact or FONSI, HUD requires that the Environmental Assessment demonstrate that the project complies with all applicable federal laws and regulations, including Section 106 of the National Historic Preservation Act. Regulations pertaining to Section 106 Review are found in 36 CFR Part 800.

Regulatory Context for Evaluation of Historical and Architectural Significance

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties. The section 106 process seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency official and other interested parties, beginning at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. To evaluate the significance of an historical resource and its integrity, the ability of a property to convey that significance, a building is evaluated according to the National Register Criteria for Evaluation. According to the guidelines of the National Register Criteria for Evaluation, the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

> A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. That are associated with the lives of persons significant in our past; or
>
> C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> D. That has yielded or may be likely to yield, information important in prehistory or history.

Section 106 compliance requires the County of San Mateo to obtain the views of the State Historic Preservation Officer (SHPO) as to whether any of the project activities could have an "adverse effect" to the setting or character-defining features of any historically significant property in the Area of Potential Effects (APE). A historically significant property is one that would be eligible for listing on the National Register of Historic Places, whether it is currently listed or not.

Project Description/Undertaking

Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025 (APN 055-383-560):

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment. Services will be provided on-site to all residents free of charge by MidPen Resident Services Corporation. A part time service coordinator will provide one-on-one support to families to help them address individual needs as well as provide referrals to other community resources. A classroom will be provided so MidPen can offer its academically-based after-school program for children living at the property. In addition, the service coordinator will provide adult education, health and wellness, financial literacy and other skill building classes on-site for residents, held at the new community room, computer lab, and fitness room

The current zoning of the property is R-4-S, High Density Residential which is appropriate for the proposal. The project proposes a density of 37.23 dwelling units per acre (du/acre). The existing frontage easement will be abandoned.

The target demographic is low-income families and will be 100% affordable housing.

Source: (1) (See attached plans and drawings)

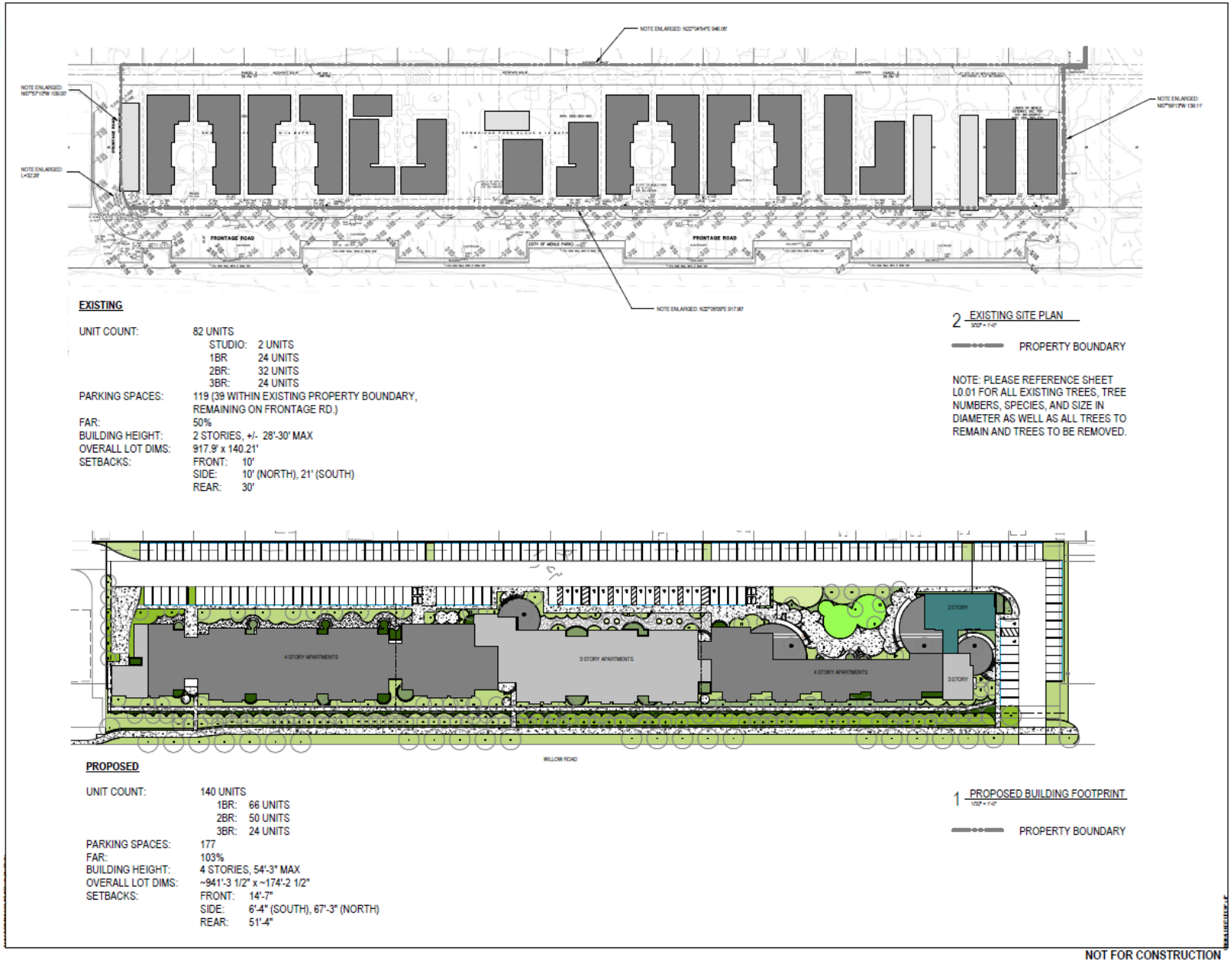


Figure 1 Existing and Proposed Building Footprint

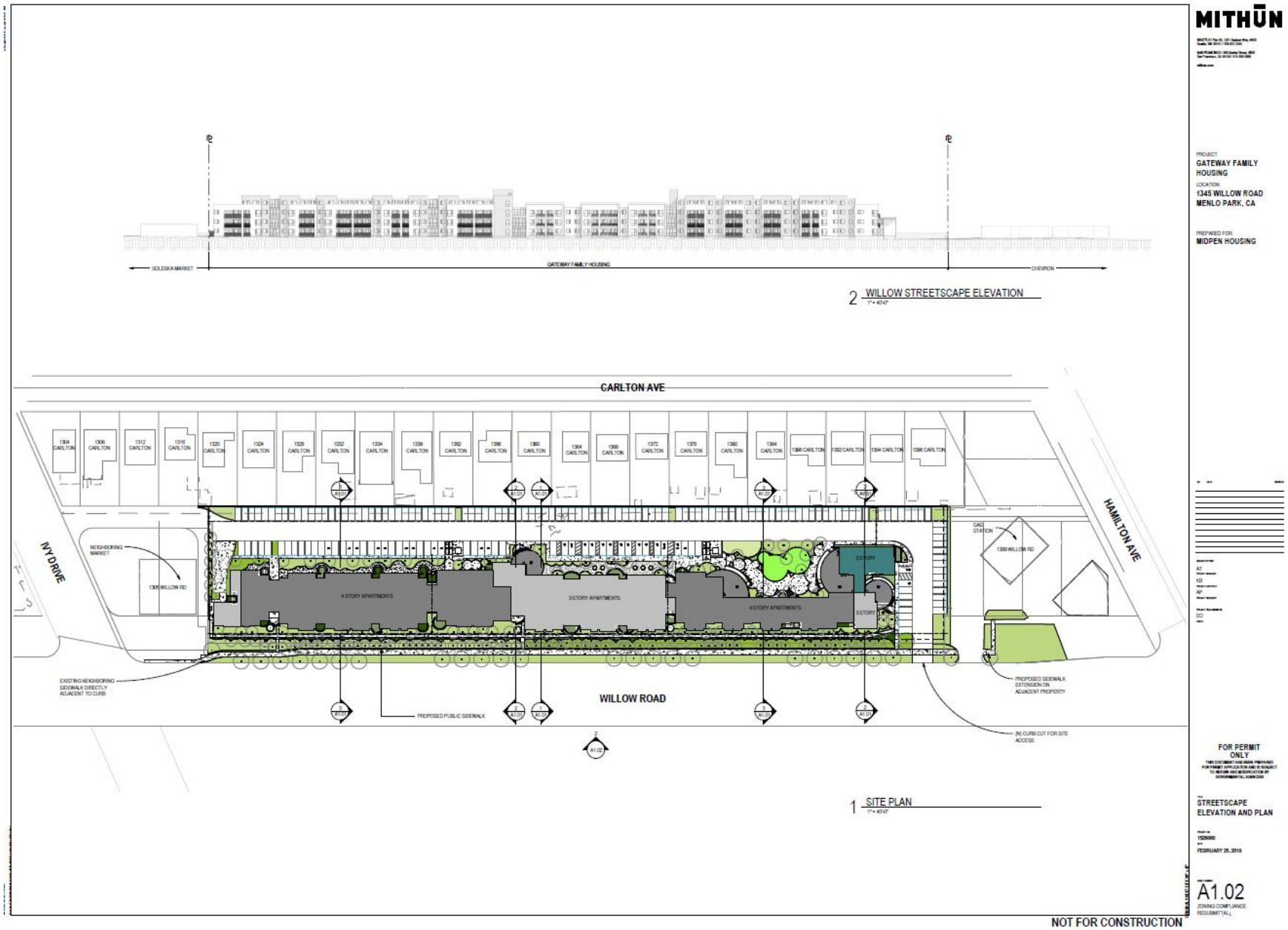


Figure 2 Site Plan

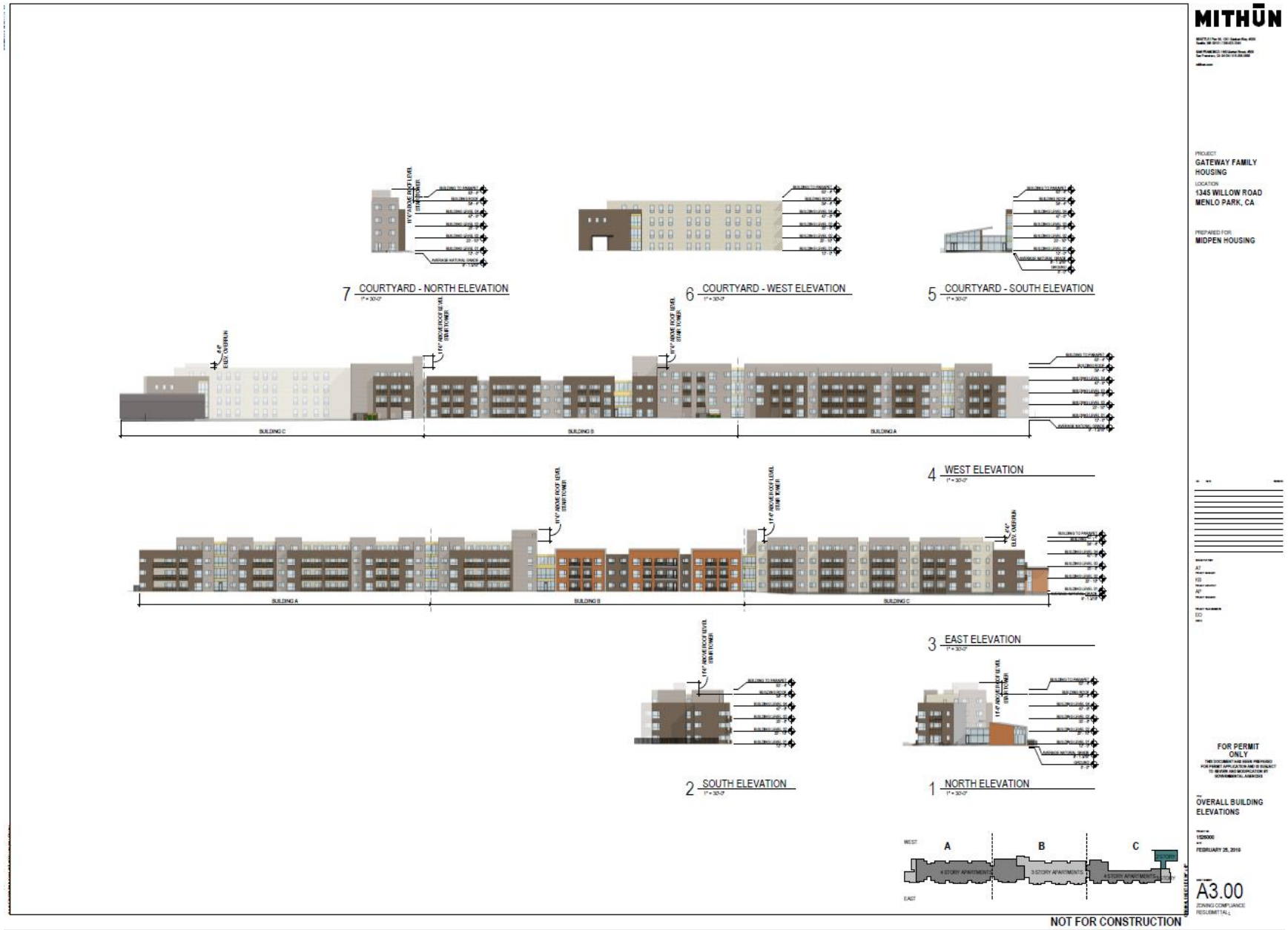


Figure 3 Elevations

Figure 4 Elevations

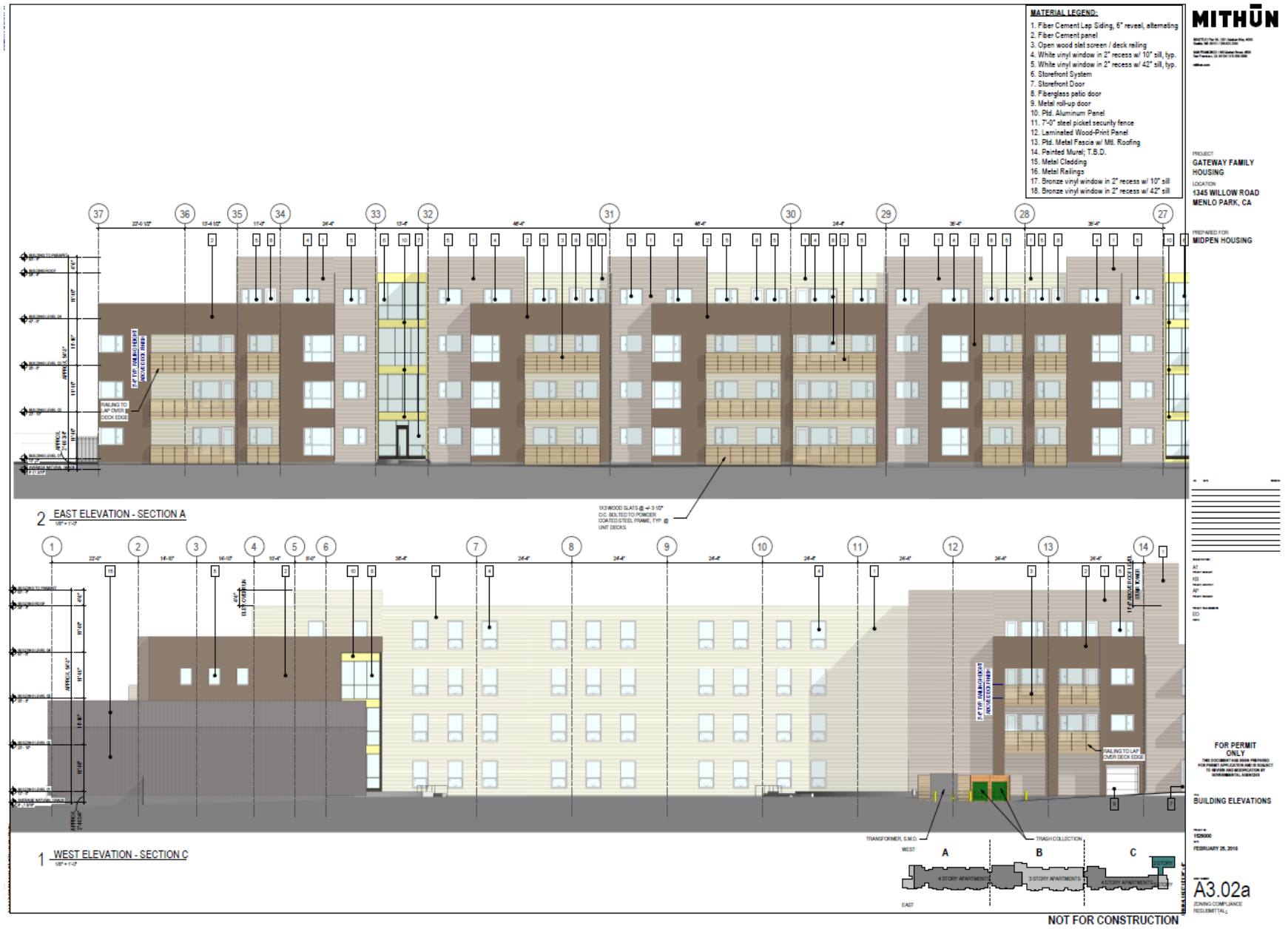


Figure 5 Elevations

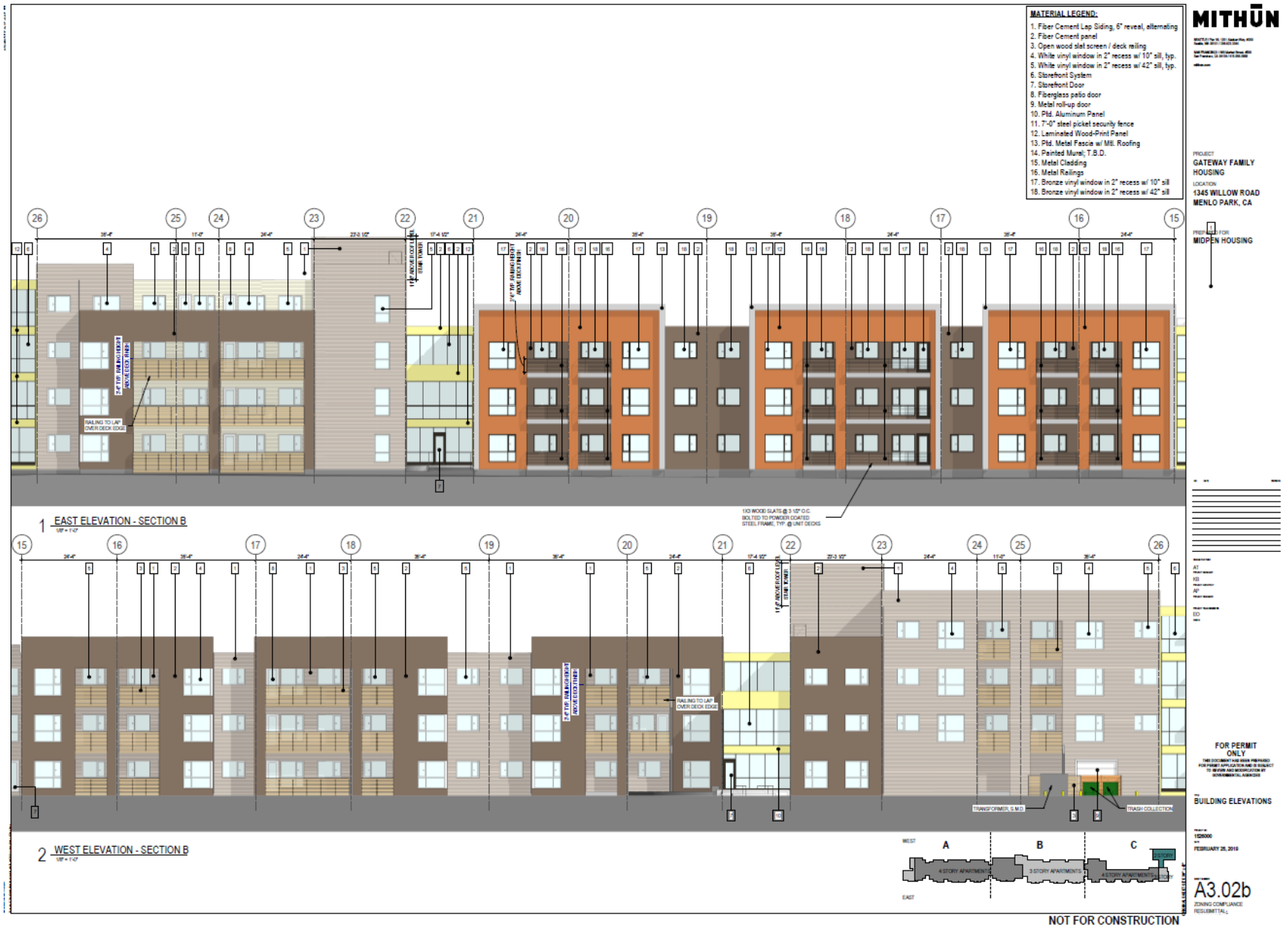


Figure 6 Elevations

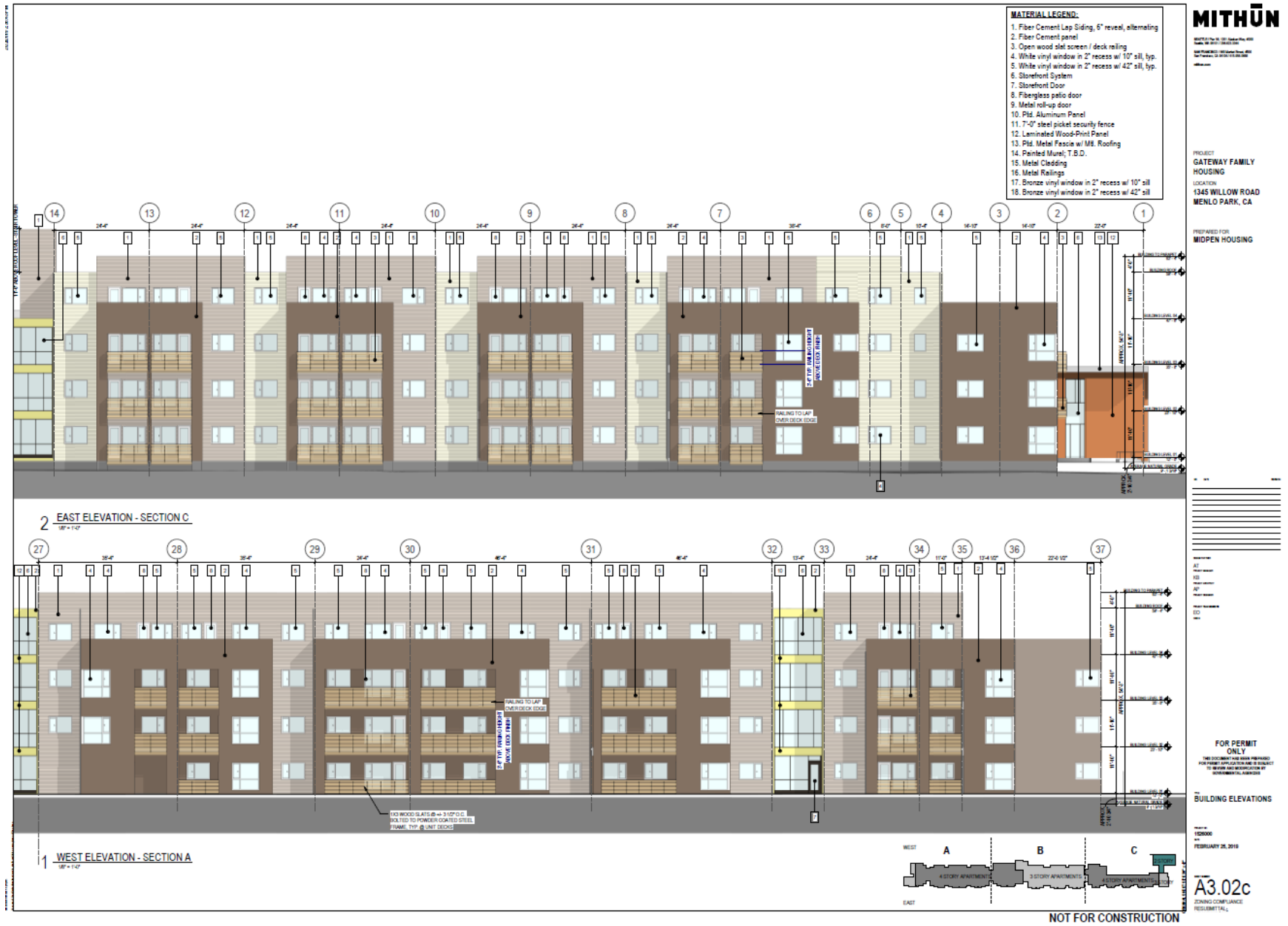
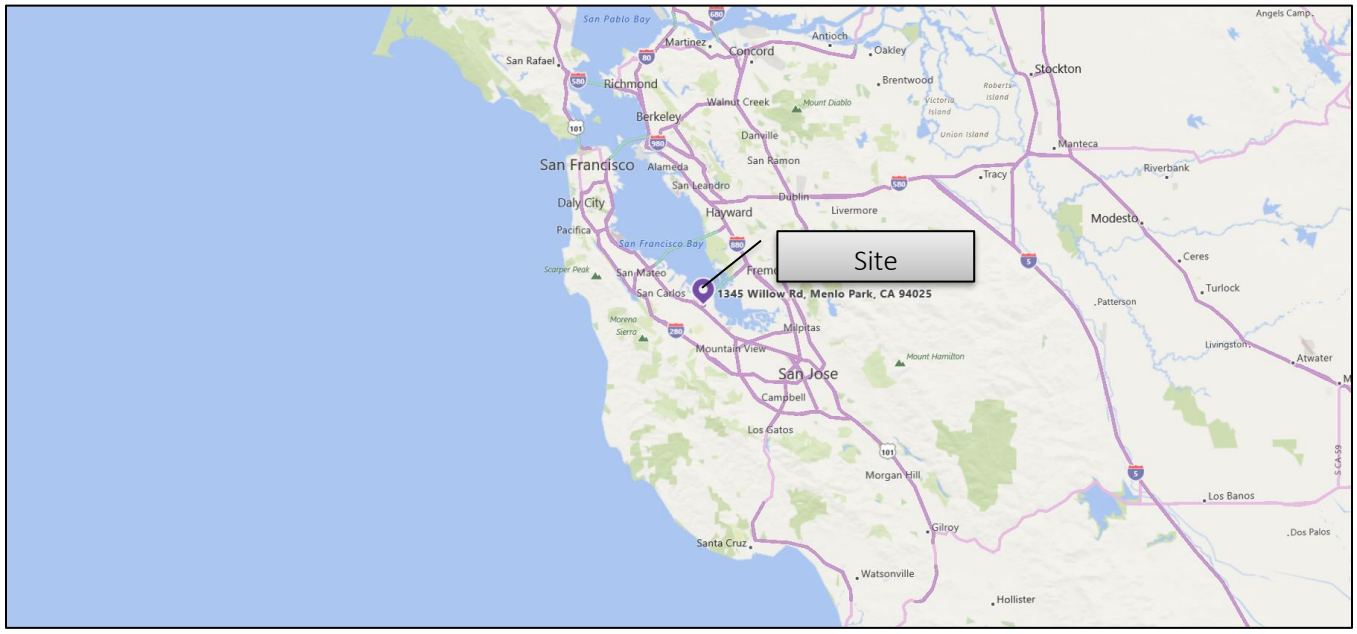
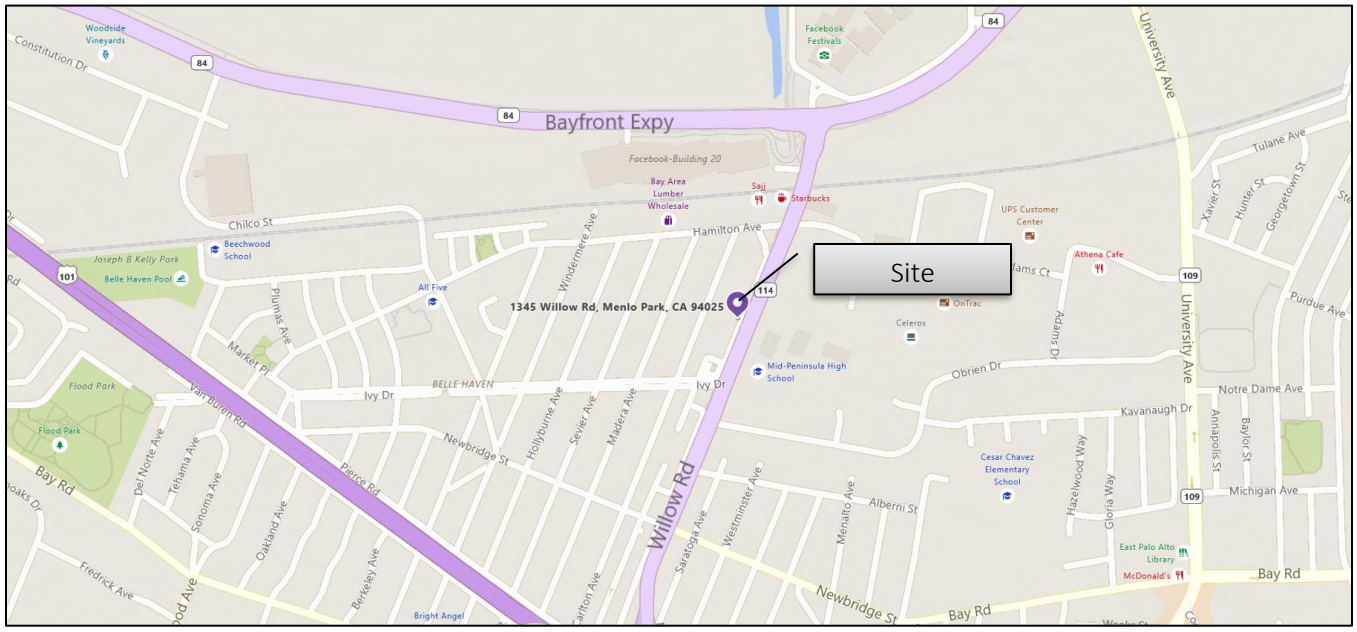


Figure 7 Elevations

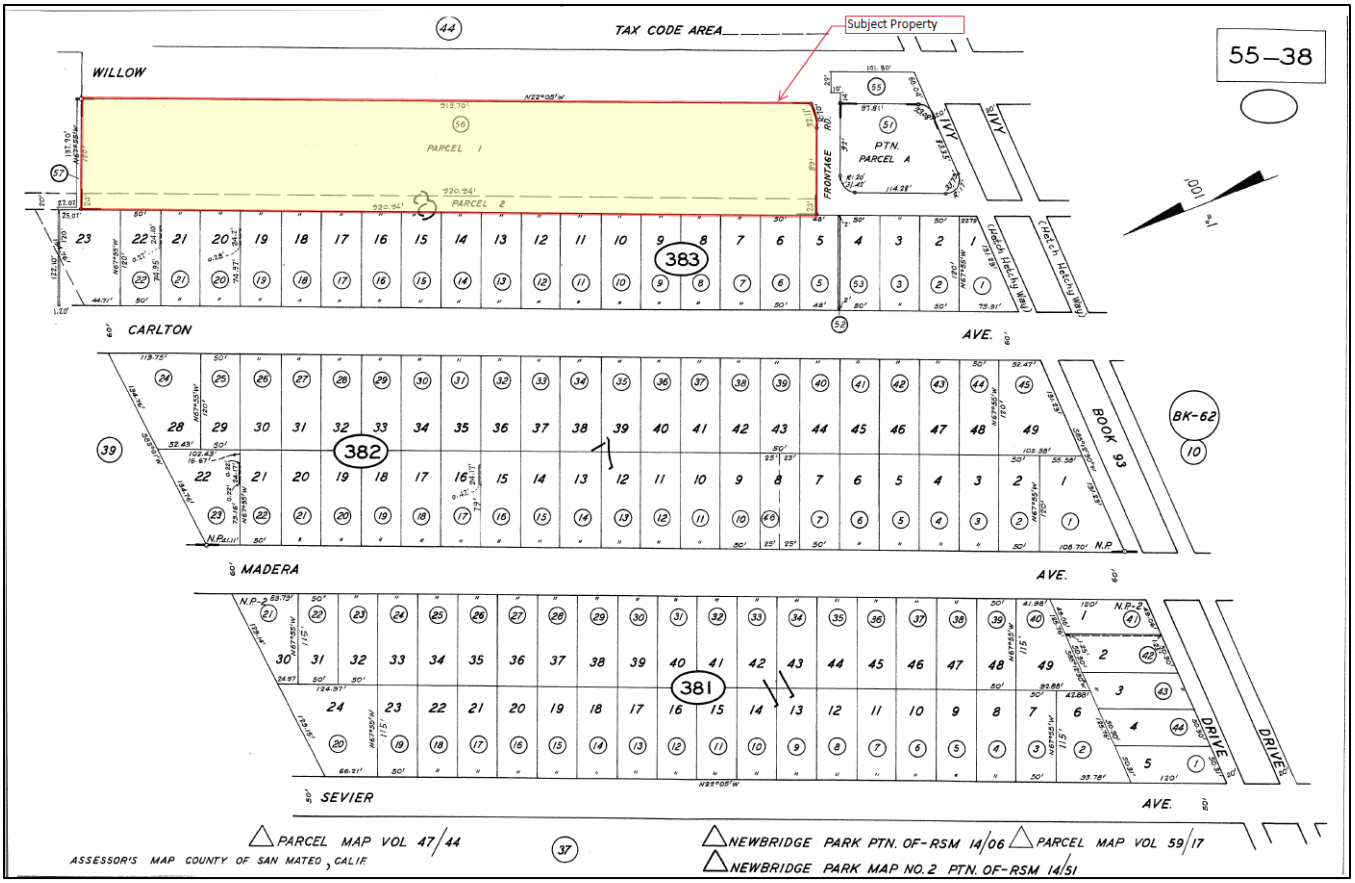
Project Location



Map 1 Region



Map 2 Local Setting



Map 3 Assessor Parcel Map

Figure 8 Bird's Eye View - Existing Conditions

Site Conditions

As of the 2010 census, the population of Menlo Park was 32,026. It is situated on the San Francisco Peninsula at the eastern edge of San Mateo County, in the San Francisco Bay Area of California. It is bordered by San Francisco Bay on the north and east; East Palo Alto, Palo Alto and Stanford to the south; Atherton, North Fair Oaks and Redwood City to the west. Menlo Park is one of the most educated cities in the U.S. with nearly 70% of its residents having earned an advanced degree.

According to the U.S. Census Bureau, the city has a total area of 17.4 square miles, of which 9.8 square miles is land and 7.6 square miles is water. The main street in downtown Menlo Park is Santa Cruz Avenue. Much of Menlo Park's economy centers around the companies on Sand Hill Road, consisting of venture capital, financial services, law firms, and other professional service companies and investment vehicles focusing on technology. Geron, Robert Half International, Exponent, Sunset and SRI International are among the companies based in Menlo Park. Facebook moved its headquarters to the former campus of Sun Microsystems in Menlo Park in 2011.

Menlo Park is located on the flatter portions of the south-western margin of Bay, east of the San Andreas Fault zone, which limit scenic vistas within the City. However, due to the flat nature, the majority of the City, particularly from the north and east of Highway 101, are afforded views of the Santa Cruz Mountain Range, which runs the length of the San Francisco Peninsula and forms a barrier between the Pacific Ocean and the Bay. Scenic resources also include the Bay itself and its natural features as viewed from the eastern and northern portions of the City, and the densely vegetated riparian area lining the open water of San Francisquito Creek seen from views along the city's southeast border. The grassy foothills, which are part of the larger Stanford foothills, provide the visual backdrop to the west of the City.

Site Characteristics

The subject property is occupied by residents in multiple pre-fabricated homes built in the 1960s. There are 82 residential units housing in 17 buildings. The parcel is a long, rectangular shaped parcel with the long-edge bordering Willow Road, also known as State Route 114, an arterial roadway connecting Highway 101 and the Bayshore Freeway.

Area of Potential Effects

The Area of Potential Effects (APE) includes the subject parcel and 25 of the surrounding properties, or 26 properties in all. The APE Map shows all in greater detail. Results of an eligibility evaluation of the APE Properties are summarized on Table 1, which follows.

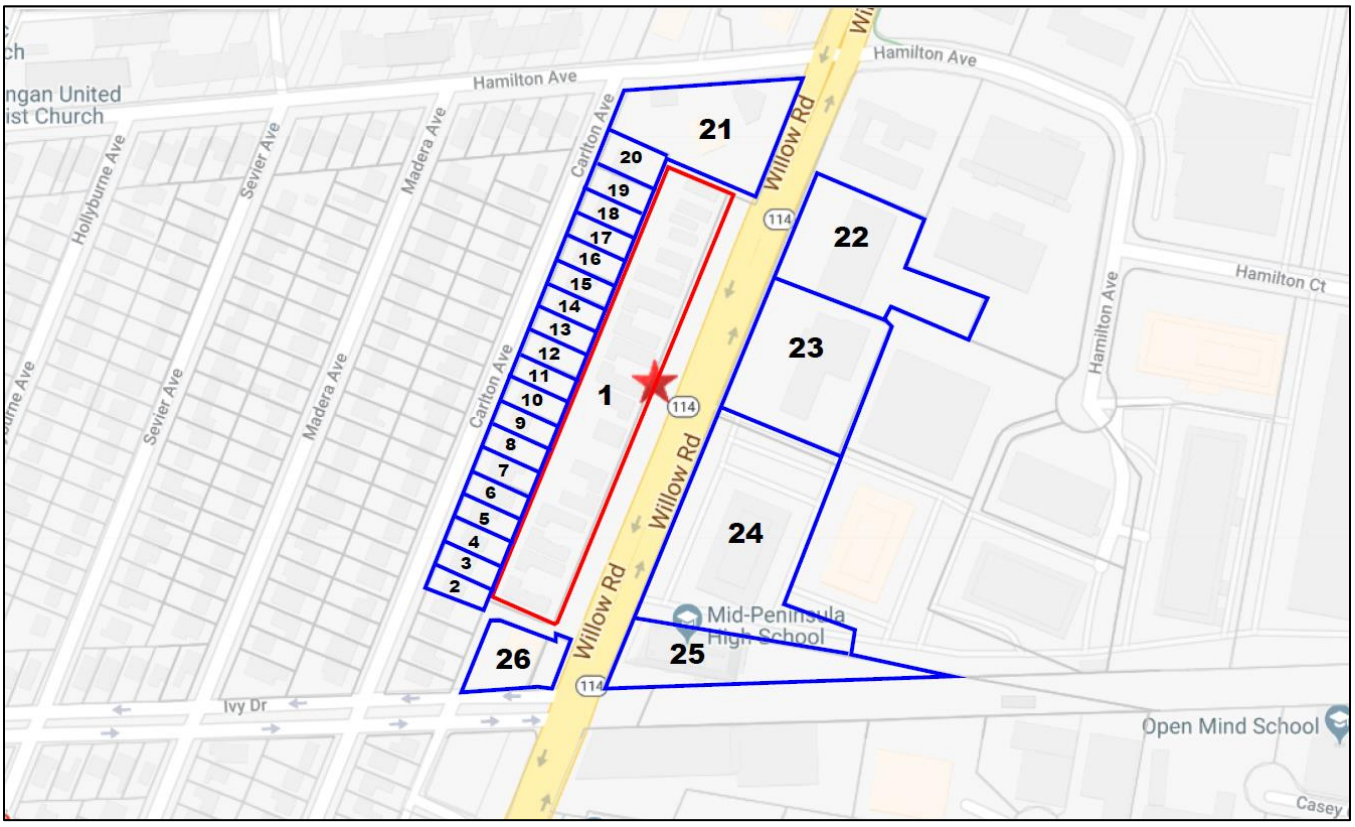
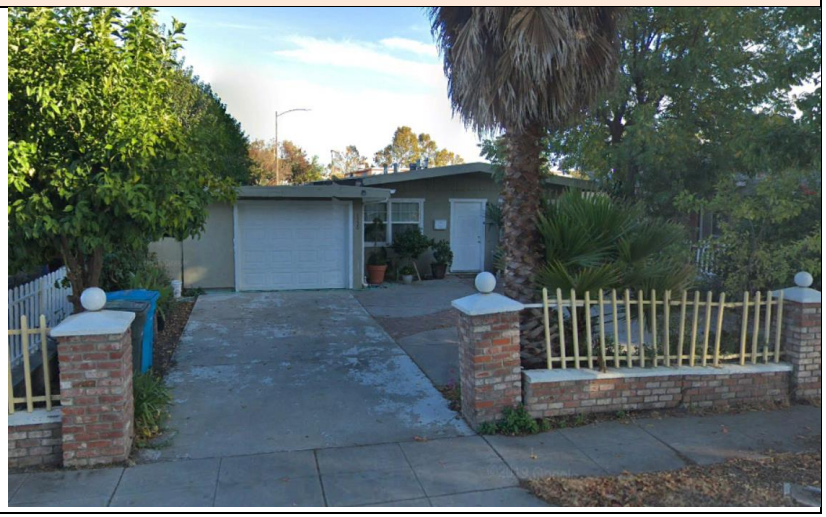


Figure 9 Area of Potential Effects

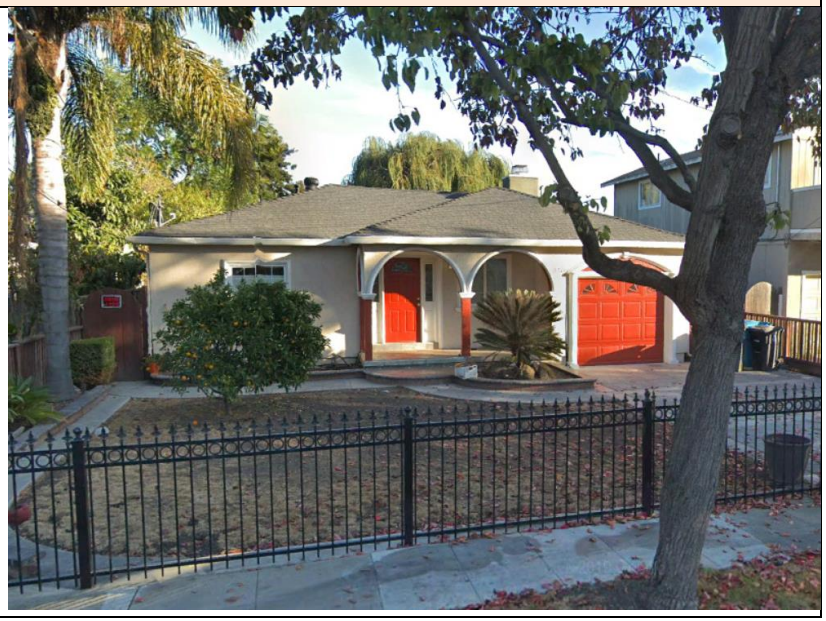
Table 1 Summary of Area of Potential Effects Properties – Gateway Family Housing – 1345 Willow Road, Menlo Park, CA 94025

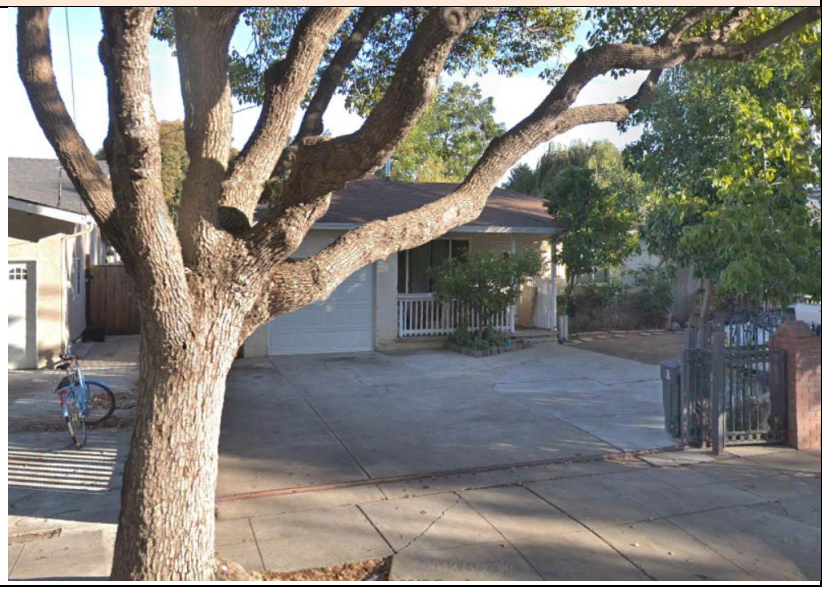
APE #	APN	Address	Owner	Year built	Comments	Photo
1	055-383-560	1345 Willow Road, Menlo Park, CA 94025	Menlo Gateway Inc.	1960s	**Subject Property** 82 multifamily units	

APE #	APN	Address	Owner	Year built	Comments	Photo
2	055-383-050	1320 Carlton Avenue, Menlo Park, CA 94025[1]	Sina Miri	1953	Single family residence	

[1] *All of the APE addresses are located in the City of Menlo Park, California 94025*

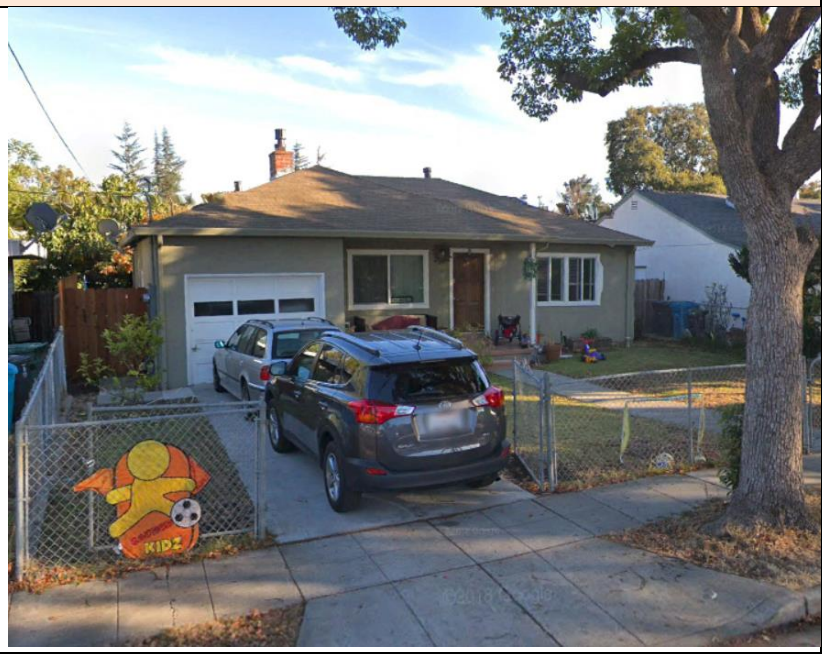
APE #	APN	Address	Owner	Year built	Comments	Photo
3	055-383-060	1324 Carlton Avenue	Daniel Percival	1949	Single family residence	

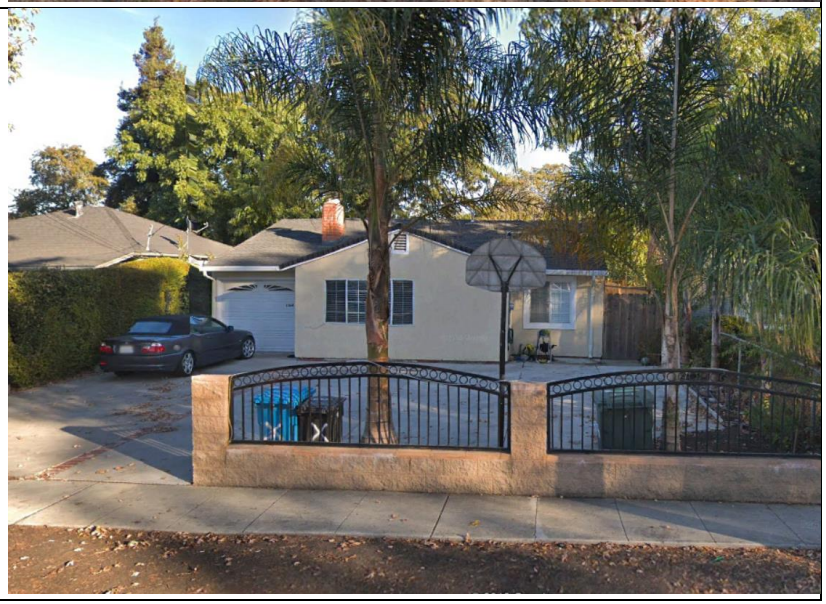
APE #	APN	Address	Owner	Year built	Comments	Photo
4	055-383-070	1328 Carlton Avenue	Andrew Stark	1950	Single family residence	

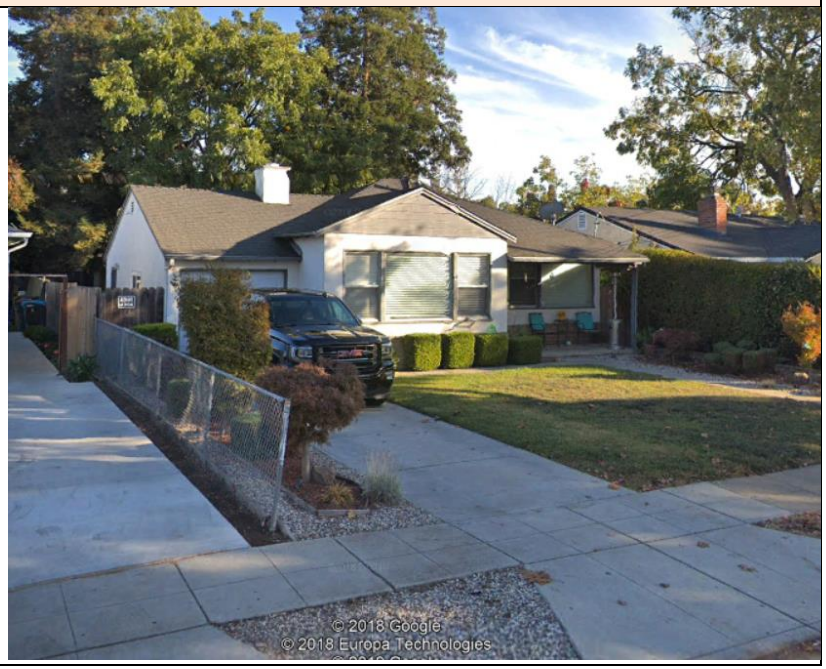
APE #	APN	Address	Owner	Year built	Comments	Photo
5	055-383-080	1332 Carlton Avenue	Angelica Orosco	1949	Single family residence	

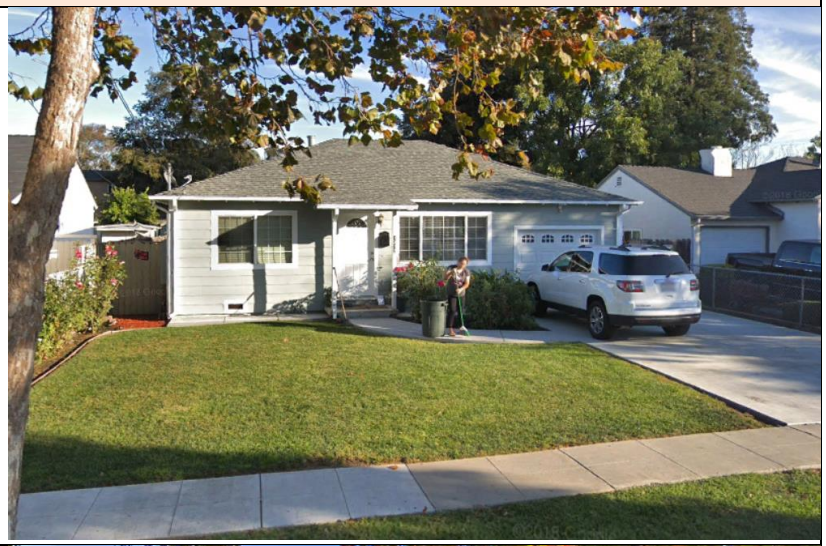
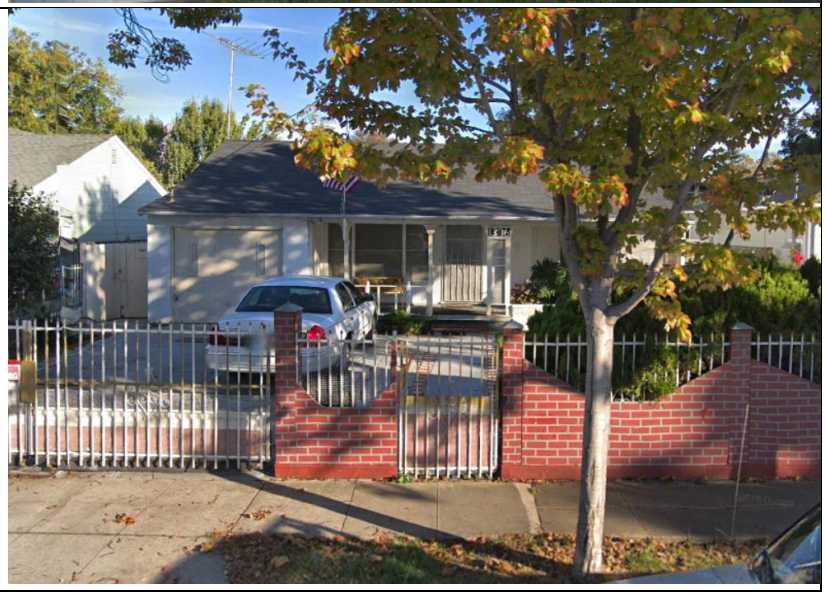
APE #	APN	Address	Owner	Year built	Comments	Photo
6	055-383-090	1334 Carlton Avenue	Afework Tewolde	1949	Single family residence	
7	055-383-100	1338 Carlton Avenue	Marcos Henriquez	1949	Single family residence	

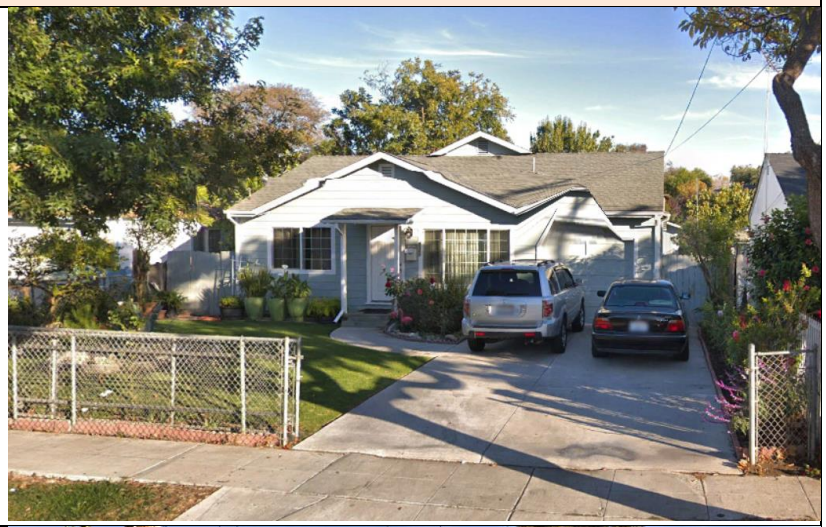
APE #	APN	Address	Owner	Year built	Comments	Photo
8	055-383-110	1352 Carlton Avenue	Maria Salas	1949	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
9	055-383-120	1356 Carlton Avenue	Mehdi Kaci	1949	Single family residence	

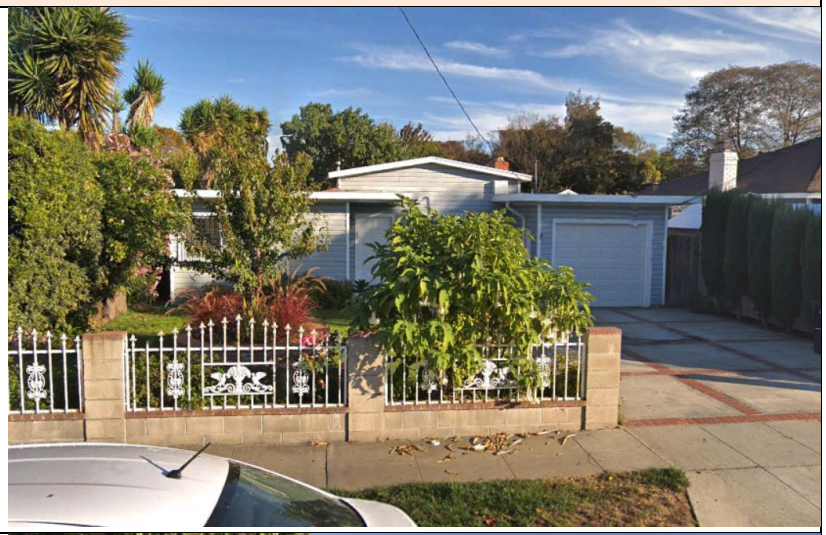
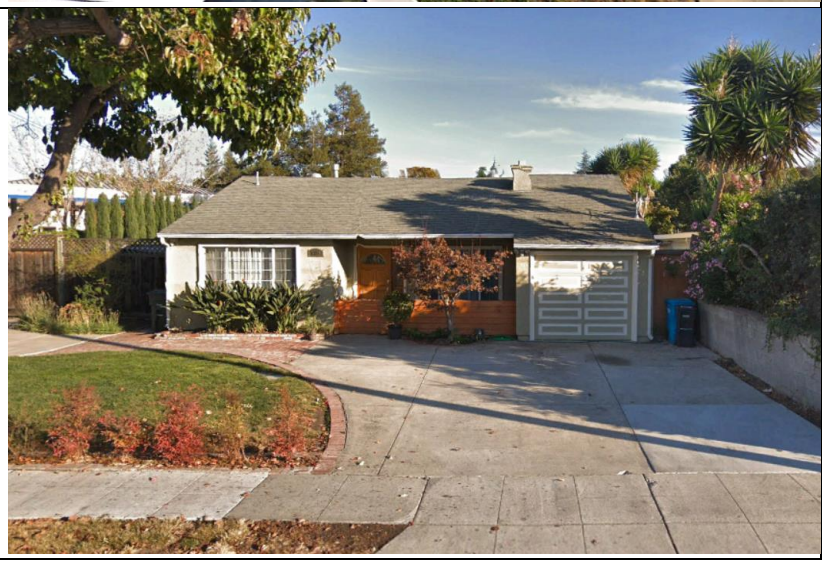
APE #	APN	Address	Owner	Year built	Comments	Photo
10	055-383-130	1360 Carlton Avenue	Honey Finley	1949	Single family residence	
11	055-383-140	1364 Carlton Avenue	Uriel Valdivias	1951	Single family residence	

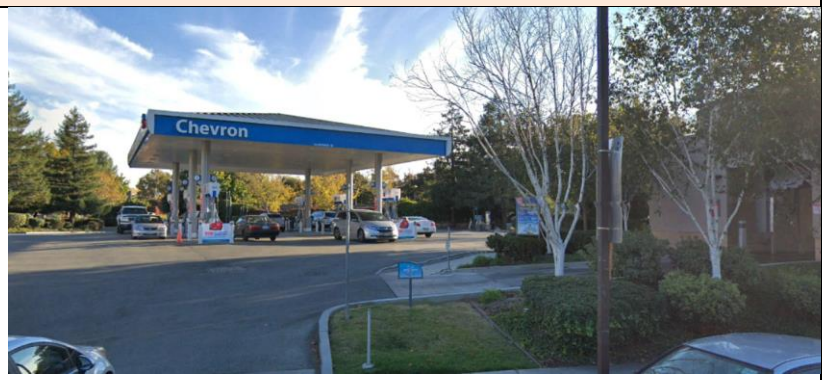
APE #	APN	Address	Owner	Year built	Comments	Photo
12	055-383-150	1368 Carlton Avenue	Alfred Dendy	1949	Single family residence	

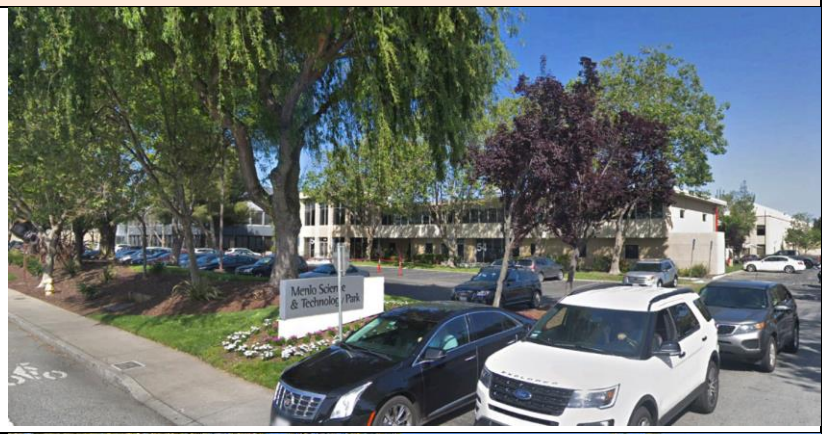
APE #	APN	Address	Owner	Year built	Comments	Photo
13	055-383-160	1372 Carlton Avenue	Vicente Chavez	1950	Single family residence	
14	055-383-170	1376 Carlton Avenue	Adell Shepard Sr.	1950	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
15	055-383-180	1380 Carlton Avenue	Vincente Chavez	1950	Single family residence	
16	055-383-190	1384 Carlton Avenue	Donald Foreman	1948	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
17	055-383-200	1388 Carlton Avenue	Jesus Garnica	1951	Single family residence	
18	055-383-210	1392 Carlton Avenue	Ning Zhang	1948	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
19	055-383-220	1394 Carlton Avenue	Yanfeng Wang	1951	Single family residence	
20	055-395-060	1396 Carlton Avenue	Tzjeng Yang	1952	Single family residence	

APE #	APN	Address	Owner	Year built	Comments	Photo
21	055-395-090	1399 Willow Road	Chevron USA	2000	Gas station	
22	055-440-300	1380 Willow Road	Peninsula Innovation Partners LLC	1982	Packing Plant	

APE #	APN	Address	Owner	Year built	Comments	Photo
23	055-440-210	1370 Willow Road	Peninsula Innovation Partners LLC	Unk	Light Manufacturing	
24	055-440-350	1350 Willow Road	Peninsula Innovation Partners LLC	Unk	Office Building	

APE #	APN	Address	Owner	Year built	Comments	Photo
25	055-432-150	1340 Willow Road	Mid Pen Education Center Inc.	Unk	Private School	
26	055-383-510 and 055-383-550	1305 Willow Road	Dora Caballero	1979	One story store with parking lot	

Evaluation

SUBJECT PROPERTY

APE #1 – The subject parcel is currently improved with pre-fabricated buildings from the 1960s. The Subject property consists of 17 one-story apartment buildings, 11 two-story apartment buildings, 1 one-story common area leasing office / laundry room / apartment building, and 1 one-story community / laundry room building. The project envisions demolition of these buildings prior to redevelopment of the site at a higher density. The structures are not associated with persons important in our past, broad patterns of history or the work of a master. They are unlikely to yield information important in history or prehistory. None of the subject property buildings appear eligible for the National Register of Historic Places.

SURROUNDING PROPERTIES

APE #2 – 20 are all one- and two-story, single family homes built between 1948 and 1953, with the majority constructed in 1948. Most are one story single family homes that face Carlton Street, and back to the subject property. The homes all are of average construction and vary in style from contemporary to ranch to bungalow. The houses were built at various times from the late 1940s to the early 1950s and are mixed together on each block, indicating that several different builders were probably involved, with each builder constructing a small number of houses on scattered lots. This contrasts with the more typical method of postwar housing construction, whereby a single builder constructs an entire subdivision in a short period of time. None of the three subdivisions are sufficiently cohesive architecturally or possess sufficient integrity to convey a sense of their time, and therefore they do not appear to have the potential to meet the National Register criteria. The City of Menlo Park has not identified any of these properties as local or California Register eligible properties.

APE #21 is a gasoline dispensing station constructed in 2000 and is less than 50 years old; therefore it will not be evaluated further for historic significance.

APE #22 – 24 are buildings owned by Peninsula Innovation Partners that operate a packing plant, offices and light industrial, across Willow Road from the project site. All were constructed in 1982 or later and therefore are less than 50 years of age. None will be evaluated for historic significance.

APE #25 is a private school building constructed in the 2000s and is less than 50 years old; therefore it will not be evaluated further for historic significance.

APE #26 is a one-story store building and parking lot constructed in 1979 and is less than 50 years old; therefore it will not be evaluated further for historic significance.

CITY OF MENLO PARK HISTORIC RESOURCES

The City of Menlo Park, *Housing Element, General Plan Consistency Update, and Zoning Ordinance Amendments Environmental Assessment,* Cultural Resources section identifies the subject property as a potential target for higher-density development and determined that it does not appear eligible for the California Register of Historic Places. No identified or potentially eligible historic resources are located on or near the project site in this document (see figure below, full size figure attached).

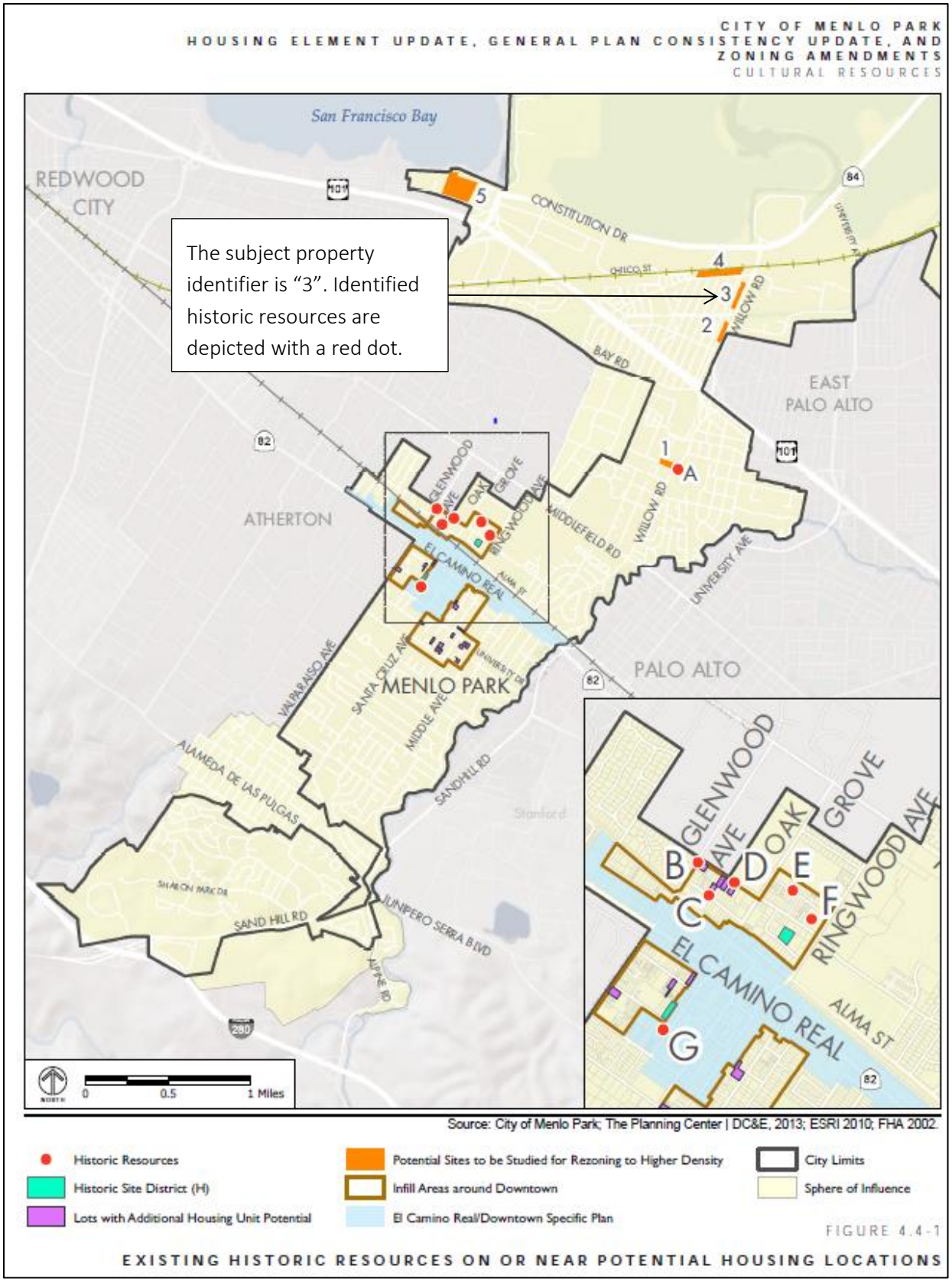


Figure 10 Existing Historic Resources on or Near Potential Housing Locations

CONCLUSION

There are no buildings on or near the project site that appear eligible for the National Register of Historic Places under any criteria listed. No formal evaluations were warranted.

Source: (2)

Archaeology

The Area of Potential Effects for archaeology is the limit of the subject property, 2.96 acres in size, to the depth required for redevelopment of the site. The site is currently developed and covered in buildings, parking areas, and landscaping, precluding a field survey at this time.

The City of Menlo Park was originally the home of Ohlone Indians. The Ohlone lived off the land and due to the abundance of food they did not practice agriculture. Evidences of their civilization are still being unearthed on the Filoli estate in Woodside, and along San Francisquito Creek.

In 1769 Spanish rule was introduced to the area when the exploration party led by Don Gaspar de Portola camped near "El Palo Alto" after their momentous discovery of San Francisco Bay. The colonizing of the Peninsula began after the expedition of Juan Bautista DeAnza passed through Menlo Park on its way to establishing Mission Dolores and the Presidio of San Francisco in 1776. The mission padres, explorers, military personnel, travelers, and settlers occupied certain areas, developing and populating the land.

In 1854 Dennis J. Oliver and Daniel McGlynn purchased 1,700 acres from the Don Jose Dario Arguello family that had legally obtained the title to the land in 1853. Around this time Menlo Park received its official name when Oliver and McGlynn erected an arch with the words “Menlo Park” on it to honor their former home in Menlough, County Galway, Ireland. In 1863, the Southern Pacific Railroad was extended to the community of Menlo Park. In the late 1850s, the road between San Francisco and San Jose was completed. Wealthy families purchased large tracts of land and were more or less self-sufficient, producing their own food. Workers lived within the estate grounds. San Mateo County became independent of San Francisco County in 1856.

During this same period, the downtown area of Menlo Park began to develop along Oak Grove Avenue between the railroad station and El Camino Real. By 1870, twelve buildings situated between the railroad station and El Camino Real in the vicinity of Oak Grove Avenue were constructed, consisting of two general stores, three hotels, livery stables, saloons, and three blacksmith shops. The first store in Menlo Park was on the corner of Oak Grove Avenue and El Camino Real.

On March 23, 1874, Menlo Park became the second incorporated City in San Mateo County, although only for a short time. The purpose was to provide a quick way to raise money for road repairs. This incorporation, which included Fair Oaks (later Atherton) and Ravenswood (later East Palo Alto) lasted only until 1876. Churches were founded, schools were opened, and businesses were established. The first church in San Mateo County was built by Dennis Martin on his ranch in 1856. It was the only Catholic Church between Mission Dolores in San Francisco and Mission Santa Clara until St. Matthew's Church was built in 1863 and St. Matthew's Episcopal Church in 1865, both in San Mateo. The Church of the Nativity in Menlo Park was built in 1872.

Menlo Park's population increased slowly until World War I. In 1917, 27,000 soldiers were stationed at Camp Fremont in Menlo Park. The training camp covered approximately 25,000 acres south along El Camino Real. Menlo Park's first gas and water services, its first paved streets, and an increase in businesses were a direct result of the transient military population. Following the closure of Camp Fremont in 1919, Menlo Park reverted to a small town with 2,300 residents.

The original Dumbarton Bridge opened in 1927, connecting the South Bay and East Bay. In 1931, the Bayshore Highway (now Highway 101) linked Menlo Park and San Francisco. In 1940, Menlo Park's population was 3,258. World War II brought about many changes in the small town. Between 1943 and 1946 another military installation, Dibble General Hospital, was built on the old Timothy Hopkins estate to care for the thousands of soldiers injured in the South Pacific in World War II. Following World War II, in the 1950s, the hospital campus became the site of the Menlo Park Civic Center, Stanford Research Institute (today's SRI International), and the United States Geological Survey. Today Menlo Park is a suburban residential community with a variety of businesses, including high-tech industries.

It is highly improbable that archaeological deposits associated with the historic period of Menlo Park exist at the project site as the site has already been developed. In addition, it is highly improbable that unrecorded Native American prehistoric archaeological sites exist at the subject property, including those that are buried under alluvial or fill soils.

Source: (2)

California Historical Resources Information System (CHRIS) Records Search

A records search of the California Historical Resources Information System (CHRIS) was conducted by the Northwest Information Center, Sonoma State University on April 10, 2019 (File No. 18-1918). A summary follows and the letter report is attached.

Review of pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Mateo County indicates that there has been one cultural resource study that includes approximately 100% of the Gateway Family Housing project area (Kaptain 2009: S-38063). Please note the portion of this study that included the current project area was a record search only and did not include a field survey. This project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no recorded buildings or structures within or adjacent to the proposed project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed Gateway Family Housing project area.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Ramaytush language, part of the Costanoan language family. There is one Native American village area in or adjacent to the proposed project area referenced in the ethnographic literature, the village of Puichon.

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the San

Francisco bayshore, inland near upland areas and ecotones, and near intermittent and perennial freshwater courses. The Gateway Family Housing project area is located in the Menlo Park area in the southwest portion of San Francisco Bay. The project area is located in Holocene alluvial fan deposits located approximately 270 meters south of the historic San Francisco bayshore margins. Given the similarity of one or more of these environmental factors and the ethnographic sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Gateway Family Housing project area.

Review of historical literature and maps indicated the possibility of historic-period activity within the Gateway Family Housing project area. An early San Mateo County map indicates the project area was located within the lands of J.P. Rynders. In addition, the 1943 Palo Alto USGS 15-minute topographic quadrangle depicts one building within the project area. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Gateway Family Housing project area.

Source: (3)

NATIVE AMERICAN CONTACTS

On April 5, 2019 the Native American Heritage Commission (NAHC) was contacted to conduct a Sacred Land inventory to determine if there are any Sacred Sites located within or near to the project site. The NAHC works to identify, catalogue, and protect places of special religious or social significance, graves, and cemeteries of Native Americans per the authority given the Commission in Public Resources Code §5097.9. On April 8, 2019 the NAHC replied with a letter stating that a search of the Sacred Lands File results were negative, however, they noted the area is sensitive for cultural resources.

Source : (4) (5)

Conclusion

The project area lies near the historic marsh margin, which was used extensively during prehistoric times for procuring resources, and often elevated spots near the marsh were used as village, camp, and resource procurement sites. The possibility of finding prehistoric archaeological resources within the project area is considered to be moderate. The potential for historic-period archaeological deposits is considered low. Given the potential for finding archaeological deposits on this parcel, it is recommended that conditions of approval include a qualified archaeologist examine the subject property after asphalt, buildings, and fill soils have been removed, but prior to other ground disturbing, construction related activities.

None of the adjacent properties are historic buildings, or designated as landmarks nor are they listed on the National Register of Historic Places. None of the structures in the Area of Potential Effects appear to be eligible for listing in the national Register of Historic Places. No prehistoric or historical archaeological sites were identified within the study area and no resource-specific recommendations are warranted.

Recommended Determination

For purposes of Section 106 Review of this undertaking, AEM Consulting recommends that the Agency Official determine that there are no historic properties in the Area of Potential Effects that will be adversely affected. The reason is there are no properties eligible for the National Register in the Area of Potential Effects of this undertaking.

Further, it is recommended that the following mitigations be incorporated into the project in the event of accidental discovery of buried cultural resources during construction:

CR1. After asphalt, buildings, and fill soils have been removed, but prior to other ground disturbing, construction related activities, a qualified archaeologist shall examine the subject property.

CR2. If during project construction activities previously unidentified archaeological resources are discovered, all project activities in the immediate vicinity of the discovery would be halted and the procedures of 36 CFR Part 800.13(b) and (c) would be followed. [Paragraph I.A. Inadvertent Archaeological Resource Discovery]

CR3. Upon discovery of Native American human remains and associated or unassociated funerary objects, the City of Menlo Park shall treat them in accordance with provisions of California Public Resources Code Section 5097.94, 5097.98, and 5097.99 and the California Health and Safety Code Section 7050.5 or as provided in federal implementing regulations found in 36 CFR 800.13(b)(2). [Paragraph I.B. Treatment of Native American human remains and cultural properties]

CR4. For any archaeological resources discovered during the excavation and construction phase, all project activities in the immediate vicinity of the discovery would halt. Procedures of 36 CFR Part 800.13(b) and (c); PRC Sections 5097.94, 5097.98 and 5097.99; and the California Health and Safety Code Section 7050.5 would be followed, including calling an archaeologist or paleontologist to evaluate the materials.

CR5. If paleontological resources were found during site excavation and construction, work would be halted until a paleontologist could evaluate the nature and significance of the resources. If significant resources were confirmed, the OHP and the California Department of State Parks would be contacted for further guidance on documentation and preservation. Protocol for the discovery of paleontological resources during construction would be the same as that for archaeological resources: project activities in the immediate vicinity of the discovery would halt, and procedures of 36 CFR Part 800.13(b) and (c); PRC Sections 5097.94, 5097.98 and 5097.99; and the California Health and Safety Code Section 7050.5 would be followed, including calling an archaeologist or paleontologist to evaluate the materials.

Source Documentation/Attachments:

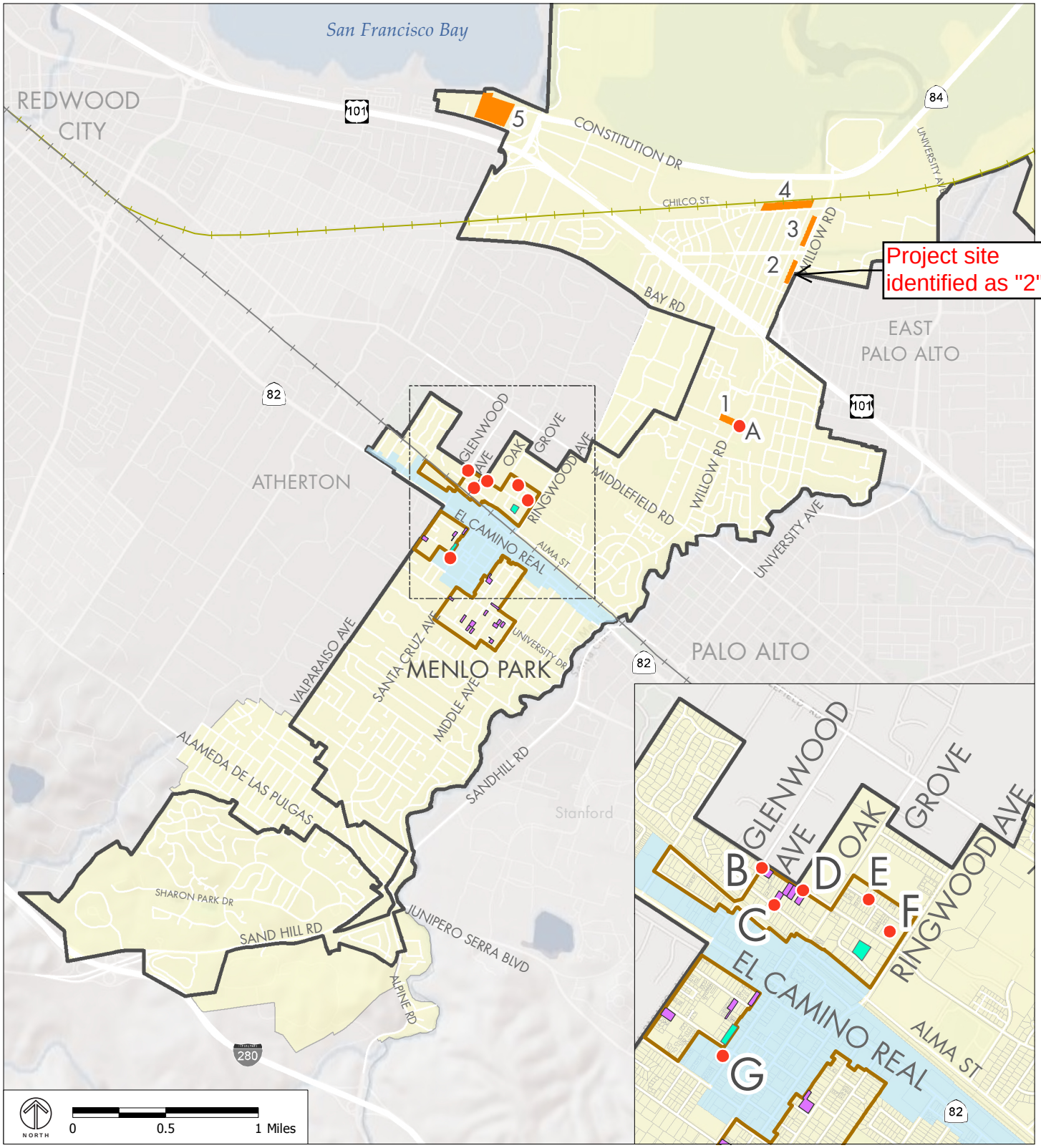
1. Mithun Architects. *Gateway Family Housing, 1345 Willow Road, Menlo Park, CA - Plans & Drawings.* San Francisco, CA : s.n., February 25, 2019. Project Number 1526000.

2. City of Menlo Park. *Housing Element Update, General Plan Consistency Update, and Zoning Ordinance Amendments Environmental Assessment.* Berkeley, CA : The Planning Center DC&E, April 4, 2013.

3. Guldenbrein, Jillian. *Records search results for the proposed Gateway Family Housing at 1317 and 1345 Willow Road (APN 055-383-560) in Menlo Park, San Mateo County, CA.* Rohnert Park, CA : California Historical Resources Information System, Northwest Information Center, Sonoma State University, April 10, 2019. NWIC File No.: 18-1918.

4. Crake, Cinnamon. *Letter to the Native American Heritage Commission.* s.l. : AEM Consulting, April 5, 2019.

5. Totton, Gayle. *Letter to Cinnamon Crake, AEM Consulting in RE: Gateway Family Housing Project, City of Menlo Park; Palo Alto USGS Quadrangle, San Mateo County, California.* West Sacramento, CA : Native American Heritage Commission, April 8, 2019.



Source: City of Menlo Park; The Planning Center | DC&E, 2013; ESRI 2010; FHA 2002.

- Historic Resources
- Historic Site District (H)
- Lots with Additional Housing Unit Potential
- Potential Sites to be Studied for Rezoning to Higher Density
- Infill Areas around Downtown
- El Camino Real/Downtown Specific Plan
- City Limits
- Sphere of Influence

FIGURE 4.4-1

EXISTING HISTORIC RESOURCES ON OR NEAR POTENTIAL HOUSING LOCATIONS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

April 10, 2019 NWIC File No.: 18-1918

Cinnamon Crake
AEM Consulting
422 Larkfield Center #104
Santa Rosa, CA 95403

Re: Record search results for the proposed Gateway Family Housing at 1317 and 1345 Willow Road (APN 055-383-560) in Menlo Park, San Mateo County, CA.

Project Description: to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities.

Dear Cinnamon Crake:

Per your request received by our office on April 5, 2019, a rapid response records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Mateo County. An Area of Potential Effects (APE) map was not provided; in lieu of this, the location map provided depicting the Gateway Family Housing project area will be used to conduct this records search. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

Review of this information indicates that there has been one cultural resource study that includes approximately 100% of the Gateway Family Housing project area (Kaptain 2009: S-38063). Please note the portion of this study that included the current project area was a record search only and did not include a field survey (2009:13, 17, 20). This Gateway Family Housing project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of

Historic Places) lists no recorded buildings or structures within or adjacent to the proposed Gateway Family Housing project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed Gateway Family Housing project area.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Ramaytush language, part of the Costanoan language family (Levy 1978:485). There is one Native American village area in or adjacent to the proposed Gateway Family Housing project area referenced in the ethnographic literature [the village of Puichon (Milliken 1995).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the San Francisco bayshore, inland near upland areas and ecotones, and near intermittent and perennial freshwater courses. The Gateway Family Housing project area is located in the Menlo Park area in the southwest portion of San Francisco Bay. The project area is located in Holocene alluvial fan deposits located approximately 270 meters south of the historic San Francisco bayshore margins. Given the similarity of one or more of these environmental factors and the ethnographic sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Gateway Family Housing project area.

Review of historical literature and maps indicated the possibility of historic-period activity within the Gateway Family Housing project area. An early San Mateo County map indicates the project area was located within the lands of J.P. Rynders (Bromfield 1894). In addition, the 1943 Palo Alto USGS 15-minute topographic quadrangle depicts one building within the project area. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Gateway Family Housing project area.

The 1948 and 1961 Palo Alto USGS 15-minute topographic quadrangle depicts an urban area, indicating one or more buildings or structures within the Gateway Family Housing project area. Any unrecorded buildings or structures present may meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There is a high potential for Native American archaeological resources and a high potential for historic-period archaeological resources to be within the project area. Given the potential for archaeological resources in the proposed Gateway Family Housing

project area, our usual recommendation would include archival research and a field examination. The proposed project area, however, has been highly developed and is presently covered with asphalt, buildings, or fill that obscures the visibility of original surface soils, which negates the feasibility of an adequate surface inspection.

Therefore, prior to demolition or other ground disturbance, we recommend a qualified archaeologist conduct further study be undertaken to adequately assess locations of the proposed project that have the potential to disturb sensitive landforms. Field study may include, but is not limited to, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of buried archaeological resources. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

2) No historic properties were located in the Gateway Family Housing project area. If, in a later process, buildings or structures are identified that meet the minimum age requirement, we recommend that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these buildings or structures:

Project Review and Compliance Unit
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

3) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

4) We recommend the lead agency contact the local Native American tribes regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at (916)373-3710.

5) If archaeological resources are encountered **during construction,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include

stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: http://ohp.parks.ca.gov/default.asp?page_id=1069.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

Jillian Guldenbrein
Researcher

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Bowman, J.N.
1951 *Adobe Houses in the San Francisco Bay Region*. In Geologic Guidebook of the San Francisco Bay Counties, Bulletin 154. California Division of Mines, Ferry Building, San Francisco, CA.

Brabb, Earl E., Fred A. Taylor, and George P. Miller
1982 *Geologic, Scenic, and Historic Points of Interest in San Mateo County, California*. Miscellaneous Investigations Series, Map I-1257-B, 1:62,500. Department of the Interior, United States Geological Survey, Washington, D.C.

Bromfield, Davenport
1894 Official Map of San Mateo County, California

Heizer, Robert F., editor
1974 *Local History Studies*, Vol. 18., "The Costanoan Indians." California History Center, DeAnza College, Cupertino, CA.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair
1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe
1966 *Historic Spots in California*. Third Edition. Stanford University Press, Stanford, CA.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle
1990 *Historic Spots in California*. Fourth Edition. Stanford University Press, Stanford, CA.

Kaptain, Neal (LSA Associates, Inc.)
2009 *Smart Corridors Geoarchaeological Sensitivity Research (letter report).* **NWIC Report S-038063**

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

Levy, Richard
1978 Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-495. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Milliken, Randall
1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Myers, William A. (editor)
1977 *Historic Civil Engineering Landmarks of San Francisco and Northern California*. Prepared by The History and Heritage Committee, San Francisco Section, American Society of Civil Engineers. Pacific Gas and Electric Company, San Francisco, CA.

Nelson, N.C.
1909 *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology 7(4):309-356. Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964)

Nichols, Donald R., and Nancy A. Wright
1971 Preliminary Map of Historic Margins of Marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map. U.S. Department of the Interior, Geological Survey in cooperation with the U.S. Department of Housing and Urban Development, Washington, D.C.

Postel, Mitchell P.
1994 *San Mateo, A Centennial History.* Scottwall Associates, San Francisco, CA.

San Mateo County Historic Resources Advisory Board
1984 San Mateo County: Its History and Heritage. Second Edition. Division of Planning and Development Department of Environmental Management.

San Mateo County Planning and Development Department
n.d. "Historical and Archaeological Resources, Section 5" from the *San Mateo CountyGeneral Plan*.

State of California Department of Parks and Recreation
1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Department of Parks and Recreation and Office of Historic Preservation
1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation **
2012 *Historic Properties Directory*. Listing by City (through April 2012). State of California Office of Historic Preservation, Sacramento.

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

Tribal Data Not Available

Tribal data is not available as of October 2017. Please send comments and updated information to EnvReview@hud.gov.

Close

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AEM CONSULTING
Planning, Public Policy & Environmental Studies

April 5, 2019

Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
VIA EMAIL: NAHC@nahc.ca.gov

Dear NAHC Representative:

Our firm is conducting a cultural resources evaluation for redevelopment project in Menlo Park, San Mateo County, California. We are seeking information from the Native American Heritage Commission regarding possible sacred lands and other cultural sites within the project area. We would also like to obtain a list of individuals whom it would be appropriate to contact regarding this project.

- County: San Mateo County
- USGS Map: PALO ALTO 7.5' Quadrangle
- Township: T – 5 S
- Range: R – 3 W
- Section: 23

The project will be funded in part with federal funding from Project-Based Section 8 Voucher program of U.S. HUD, as administered by the County of San Mateo. A brief description follows.

The Gateway Family Housing project proposes to redevelop the existing affordable housing located 1345 Willow Road in Menlo Park, San Mateo County, California 94025 (APN 055-383-560). The site contains 82 multifamily units in 17 buildings. The project will relocate residents and demolish existing improvements on the 2.96-acre parcel. An existing easement at the site frontage will be abandoned. The project will construct a new, 140 unit affordable multifamily housing project with onsite parking, community room and amenities. The unit mix will be 66 one-bedroom units, 50 two-bedroom units and 24 three-bedroom units. A total of 177 parking spaces will be provided on site along with 14 Electric Vehicle (EV) charging stations, 79 long-term bicycle parking spaces and 14 short-term bicycle parking spaces. Amenities include a community room for events and gatherings, a learning center for the after school program, and a fitness room with exercise equipment.

Please contact me by phone or FAX at (707) 523-3710, or email at ccrake@aemconsulting.net if you have any questions or need additional information. Thank you for your time and attention to this matter.

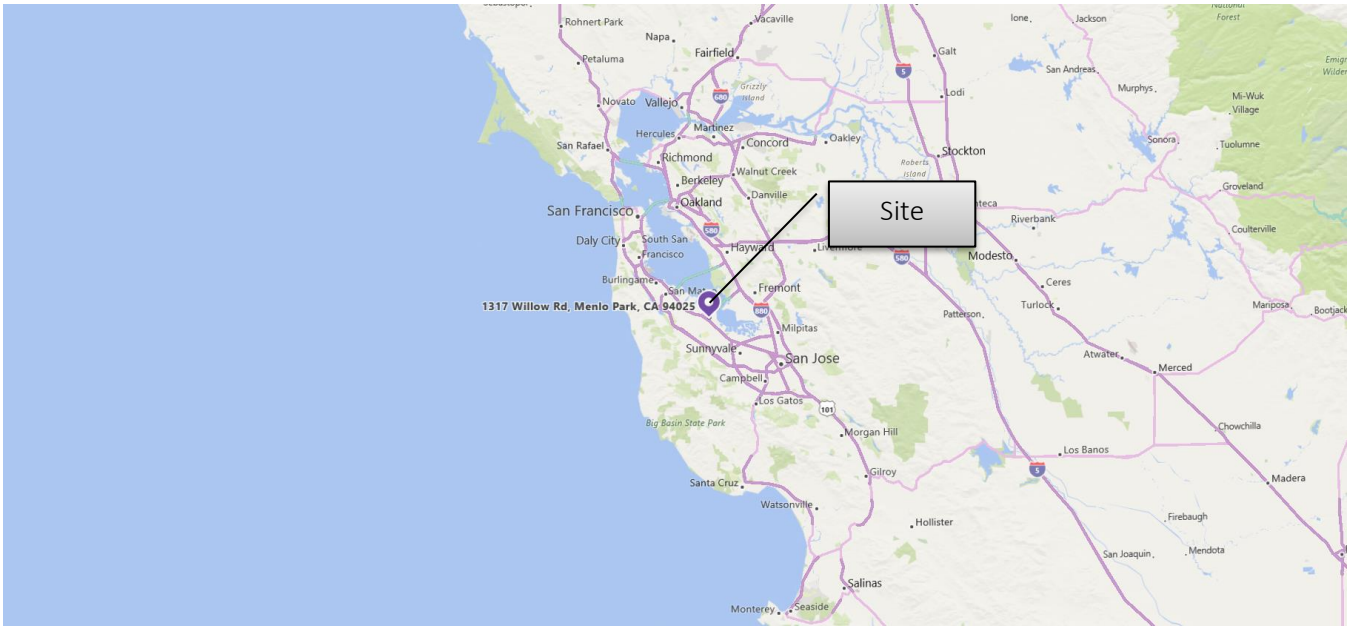
Sincerely,

Cinnamon Crake

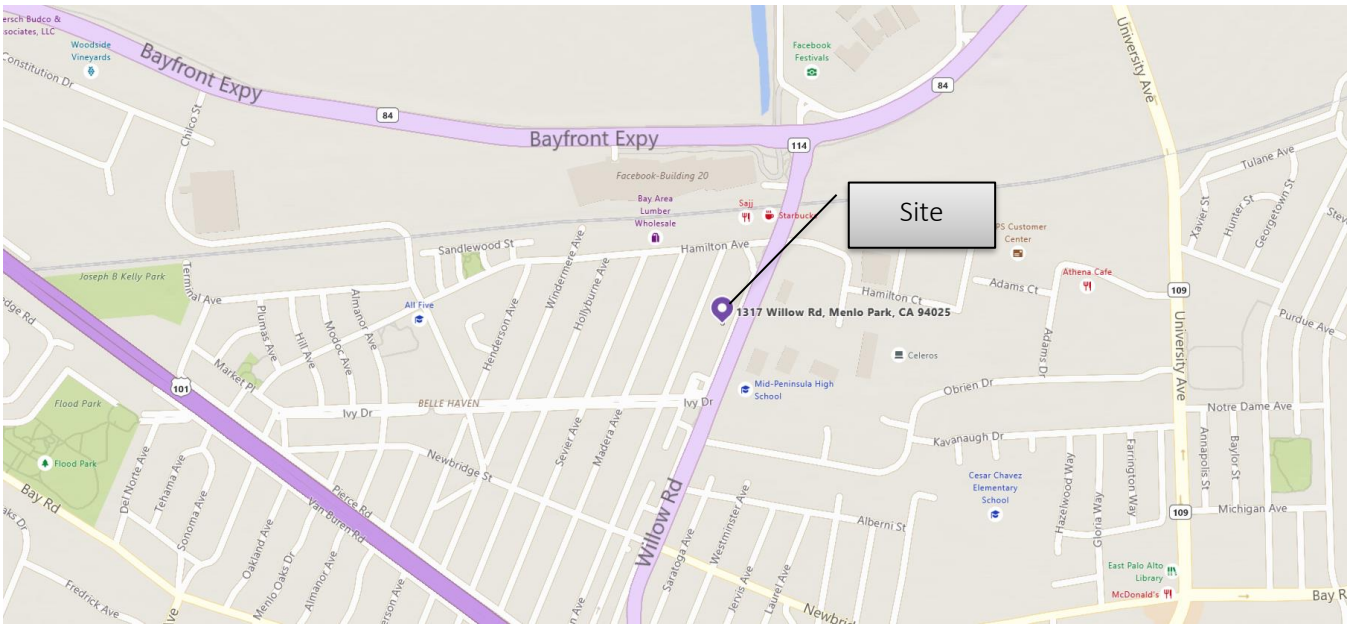
Cinnamon Crake, Associate

GATEWAY FAMILY HOUSING

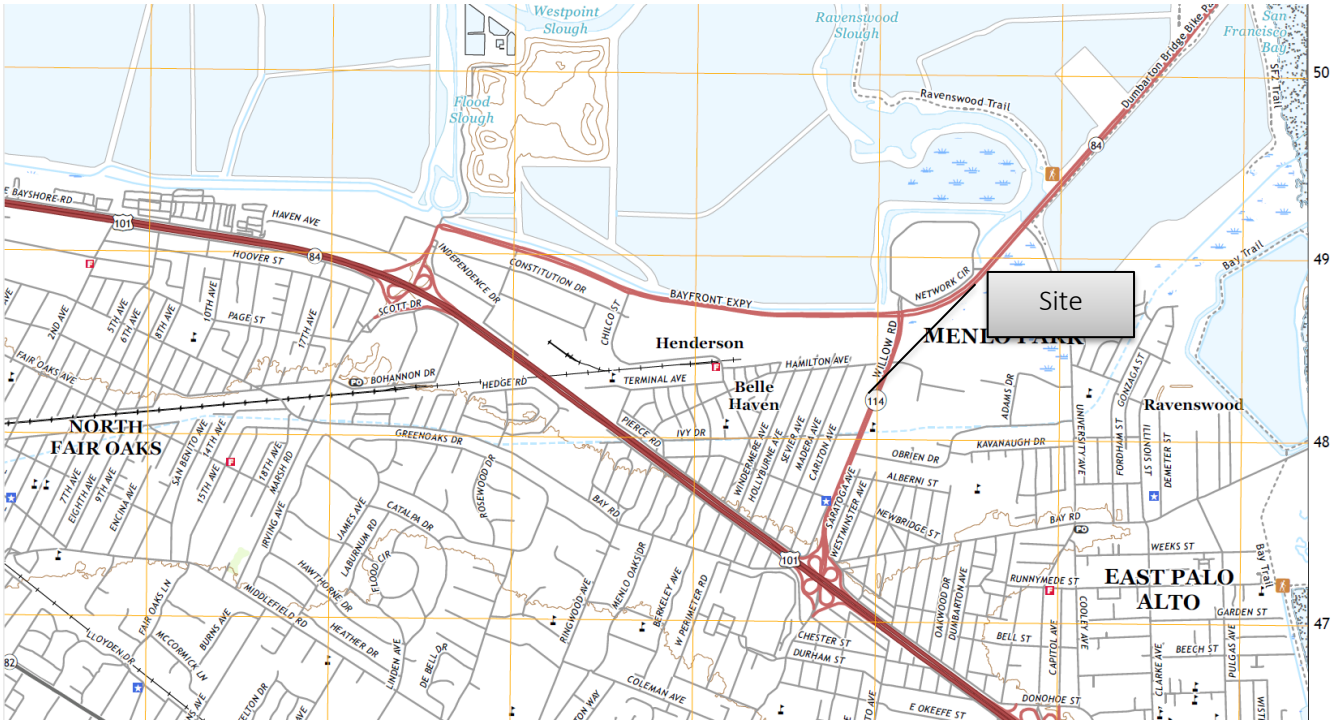
1317 Willow Road, Menlo Park, San Mateo County, CA 94025



Map 1 Region



Map 2 Detail



Map 3 U.S.G.S. Map

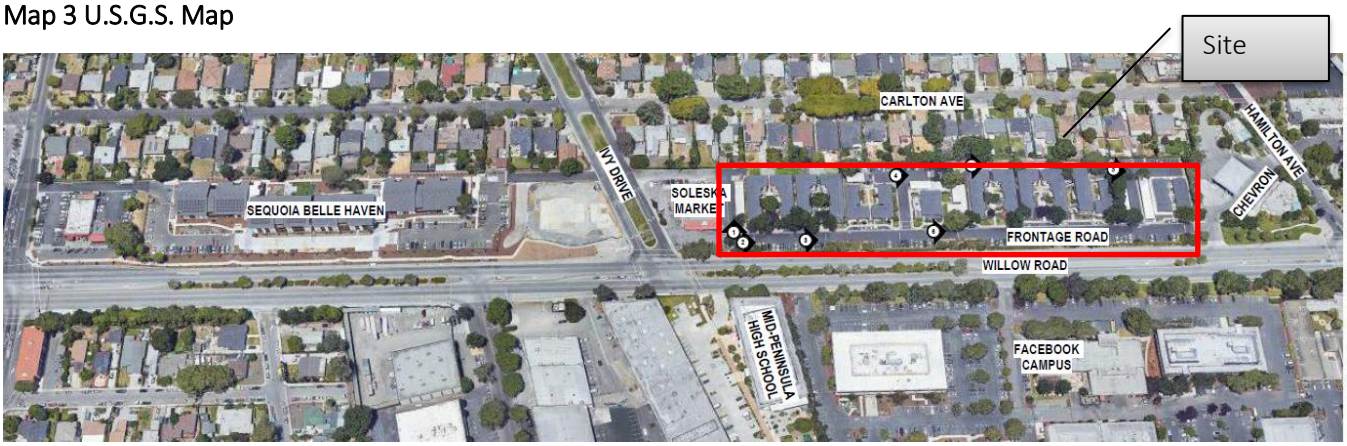


Figure 1 Aerial view

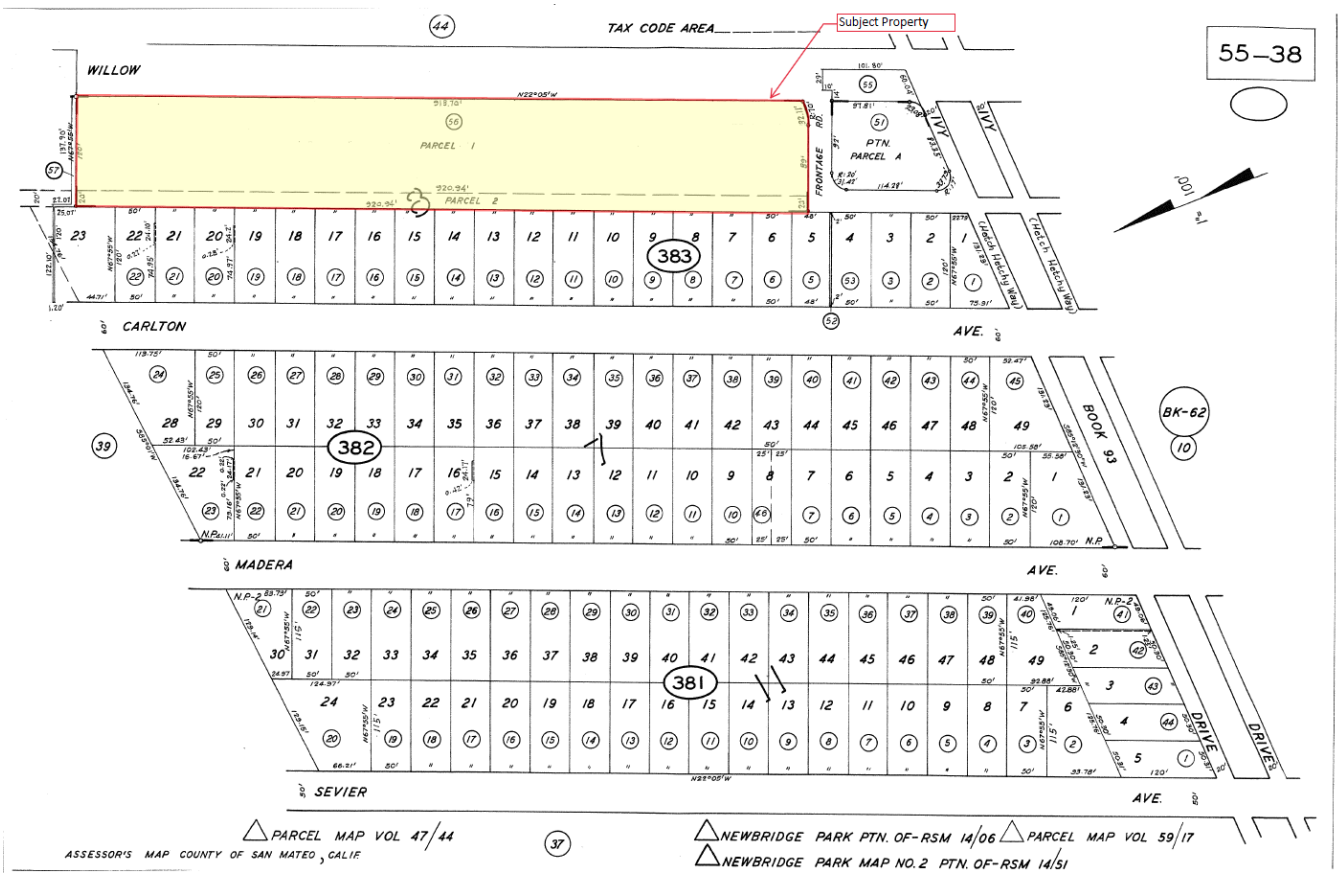


Figure 2 Assessor Parcel Map

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

April 8, 2019

Cinnamon Crake
AEM Consulting

VIA Email to: ccrake@aemconsulting.net

RE: **Gateway Family Housing Project**, City of Menlo Park; Palo Alto USGS Quadrangle, San Mateo County, California.

Dear Ms. Crake:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative however the area is sensitive for cultural resources. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Mateo County
4/8/2019

Amah MutsunTribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org

Costanoan
Northern Valley
Yokut

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA, 91766
Phone: (909) 629 - 6081
Fax: (909) 524-8041
rumsen@aol.com

Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyon.org

Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

Costanoan

The Ohlone Indian Tribe
Andrew Galvan,
P.O. Box 3388
Fremont, CA, 94539
Phone: (510) 882 - 0527
Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Ohlone
Patwin
Plains Miwok

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Gateway Family Housing Project, San Mateo County.

Appendix G – Noise

- Cole, Kenneth. *Special Environmental Clearance and Waiver of EIS for Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025.* s.l. : County of San Mateo, Department of Housing, June 2019.
- RGD Acoustics. *Environmental Noise Study for Gateway Family Housing, 1300 Willow Road, Menlo Park, CA 94025.* Larkspur, CA : s.n., July 27, 2018. RGD Project #: 18-042.

MEMORANDUM

TO: Whom it May Concern

FROM: Kenneth Cole, Director
County of San Mateo, Department of Housing

DATE: November 1, 2019

RE: Special Environmental Clearance and Waiver of EIS for Gateway Family Housing, 1345 Willow Road, Menlo Park, San Mateo County, California 94025

The Environmental Assessment conducted for the Gateway Family Housing project contains a Noise Assessment prepared per HUD guidelines for new construction of housing at theabove-named address. Based upon this Assessment, the proposed site is impacted by external future noise that has a rating of up to **71 DNL** which is "Normally Unacceptable" per HUD Guidelines.

Under authority granted to me under 24 CFR Part 51, Section 51.104 (b)(1) and in order to provide a relatively noise free environment for the proposed project's residents, I am requiring the following noise mitigations be included in the final project:

1. The minimum STC ratings for windows shall be provided as depicted on attached figures for all elevations and floors;
2. Patio doors shall be rated at STC 28 or greater.
3. The STC rating applies to the glass and the frame as a system. The performance of the windows and balcony doors should be documented by acoustical laboratory test reports.
4. Windows in all rooms requiring sound ratings will need to be in the closed position to meet the required interior noise level as per CBC 1207.4. This may affect how the project provides adequate outside (fresh) air in dwelling units. The determination of the project's requirements for ventilation and fresh air is outside our scope of work. However, if the project's mechanical engineer determines that the building code requires outside air, then open windows cannot be relied upon for natural ventilation and an alternative ventilation system should be provided. An acoustical consultant should review the ventilation system design to confirm that it does not compromise the noise reduction provided by the window and wall assembly.

Under my authority as Certifying Officer and Environmental Clearance Officer, per 24 CFR Section 51.104(b)(1), I am waiving the requirement to prepare an EIS for the project as it has been demonstrated to me that the noise exposure of the proposed living areas on site can be adequately mitigated, and no other issues or statutes were found to be of concern in the Environmental Assessment which would merit preparation of an EIS.

11·12·19

Kenneth Cole, Director — Date

Figure 4: Recommended Window STC Rating
Section A, Levels 1-4

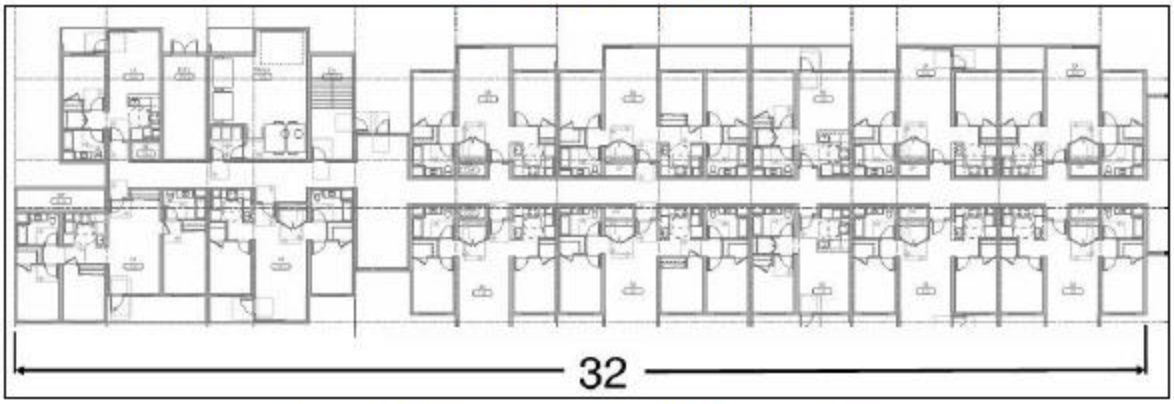


Figure 5: Recommended Window STC Rating
Section B, Levels 1, 3 and 4

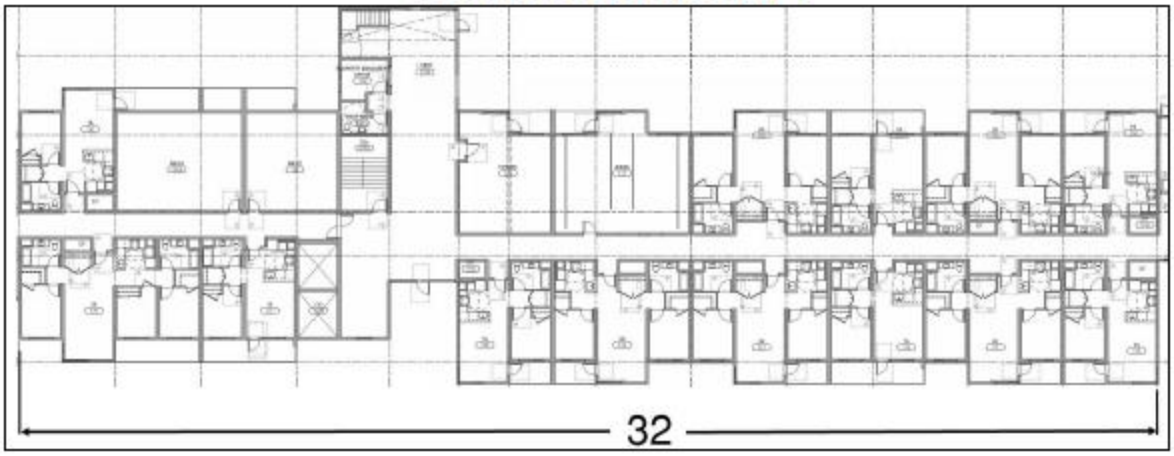


Figure 6: Recommended Window STC Ratings
Section B, Level 2

Figure 7: Recommended Window STC Rating
Section C, Levels 2-4

Figure 8: Recommended Window STC Ratings
Section C, Level 1

RGD ACOUSTICS

Acoustical & Audiovisual Consultants

ENVIRONMENTAL NOISE STUDY FOR:

Gateway Family Housing

1300 Willow Rd
Menlo Park, CA 94025
RGD Project #: 18-042

PREPARED FOR:

Mithun/Solomon
660 Market Street #300
San Francisco, CA 94104

PREPARED BY:

Alan Rosen
Principal

Skyler Carrico
Consultant

DATE:

27 July 2018

DRAFT

1. Introduction

The proposed project consists of a group of affordable residential buildings, mostly modular in construction, with on-grade parking separated from the units. The easternmost and westernmost buildings are each four stories above the podium level, while the center building is three stories above the podium level. Each building features a mixture of 1-bedrooms, 2-bedrooms, and 3-bedrooms, totaling between 136-141 units collectively.

This study addresses the noise environment with respect to the requirements of the State of California Building Code, CALGreen, and the City of Menlo Park General Plan.

2. Environmental Noise Fundamentals

Noise can be defined as unwanted sound. It is commonly measured with an instrument called a sound level meter. The sound level meter captures the sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels. To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local General Plans as well as federal and state noise regulations (e.g. Caltrans, EPA, OSHA and HUD). The abbreviation dBA is sometimes used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car passby or airplane flyover. To express the average noise level the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (DNL or L_{dn}) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dB penalty during nighttime hours (and a 5 dB penalty during evening hours in the CNEL) to account for peoples increased sensitivity during these hours. The CNEL and L_{dn} are typically less that one decibel apart.

In environmental noise, a change in noise level of 3 dB is considered a just noticeable difference. A 5 dB change is clearly noticeable, but not dramatic. A 10 dB change is perceived as a halving or doubling in loudness.

3. Acoustical Criteria

3.1. California Building Code

Section 1207.4 entitled Allowable interior noise levels states that states that "*Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The metric shall be either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan*."

3.2. CALGreen

Section 5.507 of the State of California Green Building Standards Code has exterior noise transmission requirements for new nonresidential buildings and occupancies. If the building will be exposed to an hourly L_{eq} of 65 dB or more, the building envelope shall be constructed to achieve an interior hourly equivalent noise level (L_{eq}) of 50 dBA in the occupied areas during any hour of operation. The aforementioned performance standard is an alternative to use of the prescriptive standard which tends to be much more restrictive for buildings exposed to normal exterior noise levels.

3.3. Menlo Park General Plan

The Noise Element of the City of Menlo Park General Plan has policies and actions to assure the appropriateness of new development with the noise environment of Menlo Park. The applicable policies to achieve acceptable noise levels are below:

- Policy N1.1: Compliance with Noise Standards. Consider the compatibility of proposed land uses with the noise environment when preparing or revising community and/or specific plans. Require new projects to comply with the noise standards of local, regional, and building code regulations, including but not limited to the City's Municipal Code, Title 24 of the California Code of Regulations, and subdivision and zoning codes.

- Policy N1.2: Land Use Compatibility Noise Standards. Protect people in new development from excessive noise by applying the City's Land Use Compatibility Noise Standards for New Development (see chart on the next page) to the siting and required mitigation for new uses in existing noise environments.

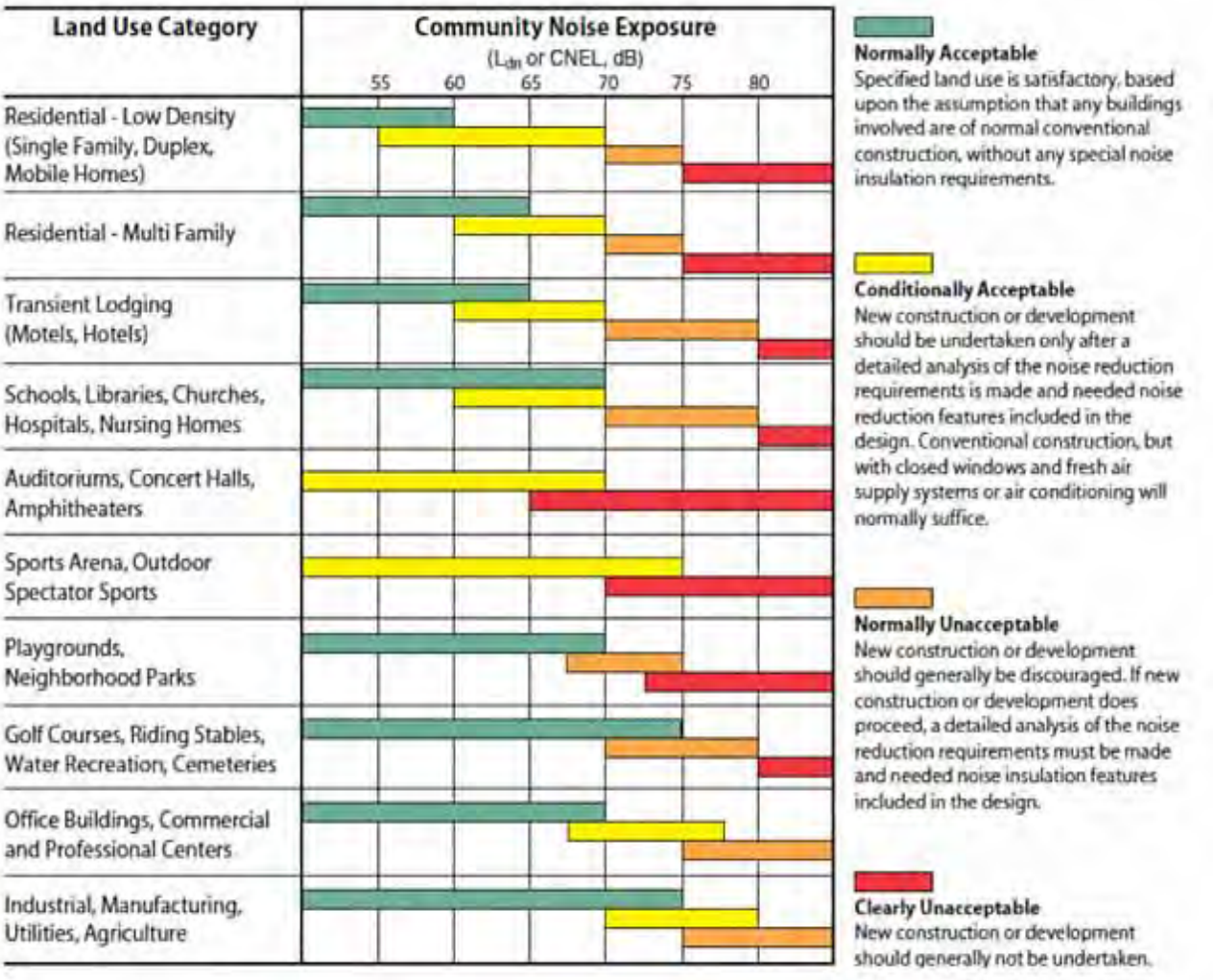
- Policy N1.3: Strive to achieve acceptable interior noise levels and exterior noise levels for backyards and/or common usable outdoor areas in new residential development and reduce outdoor noise levels in existing residential areas where economically and aesthetically feasible.

- Policy N1.4: Noise Sensitive Uses. Protect existing residential neighborhoods and noise sensitive uses from unacceptable noise levels and vibration impacts. Noise sensitive uses include, but are not limited to, hospitals, schools, religious facilities, convalescent homes and businesses with highly sensitive equipment. Discourage the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation and locate noise sensitive uses away from noise sources unless mitigation measures are included in development plans.

- Policy N1.5: Planning and Design of New Development to Reduce Noise Impacts. Design residential developments to minimize the transportation-related noise impacts to adjacent residential areas and encourage new development to be site planned and architecturally designed to minimize noise impacts on noise-sensitive spaces. Proper site planning can be effective in reducing noise impacts.

- Policy N1.6: Noise Reduction Measures. Encourage the use of construction methods, state-of-the-art noise abating materials and technology and creative site design including, but not limited to, open space, earthen berms, parking, accessory buildings, and landscaping to buffer new and existing development from noise and to reduce potential conflicts between ambient noise levels and noise-sensitive land uses. Use sound walls only when other methods are not practical or when recommended by an acoustical expert.

Figure 1: City of Menlo Park General Plan Noise - Land Use Compatibility Matrix



4. Noise Environment

The major noise source affecting the project site is vehicular traffic, primarily those traveling on Willow Road, CA-84 Bayfront Expressway, and Highway 101. Willow Road is directly south of the project site, with its center approximately 75 feet from the nearest project building setback, while CA-84 and US-101 are approximately 1,100 feet north and 2,600 feet south of the project site, respectively.

One long-term (48-hour) noise measurement and three short-term (approximately 15-minute) measurements were made at the project site to quantify the existing noise levels. The noise measurement locations are shown in Figure 2. The long-term noise monitor at LT-1 was attached to a tree approximately twelve feet above ground between the existing parking area and the adjacent apartment building, about 60 feet from the center of Willow Road. The measured noise level was a day/night average noise level of L_{dn} 68 dBA.

Figure 2: Noise Measurement Locations

The short-term measurements at ST-1, ST-2, and ST-3 were made at the setbacks of the proposed buildings with respect to the existing location of Willow Road. The short-term measurements at ST-1 and ST-3 were measured at a height of 24 feet above ground and the short-term measurements at ST-3 were measured at a height of both 5 and 24 feet above ground, simultaneously. Figure 3 shows the long-term noise measurement results and Table 1 shows the short-term measurement results.

Figure 3: Noise Measurement Results Location LT- 1 (L_{dn} 68 dBA)

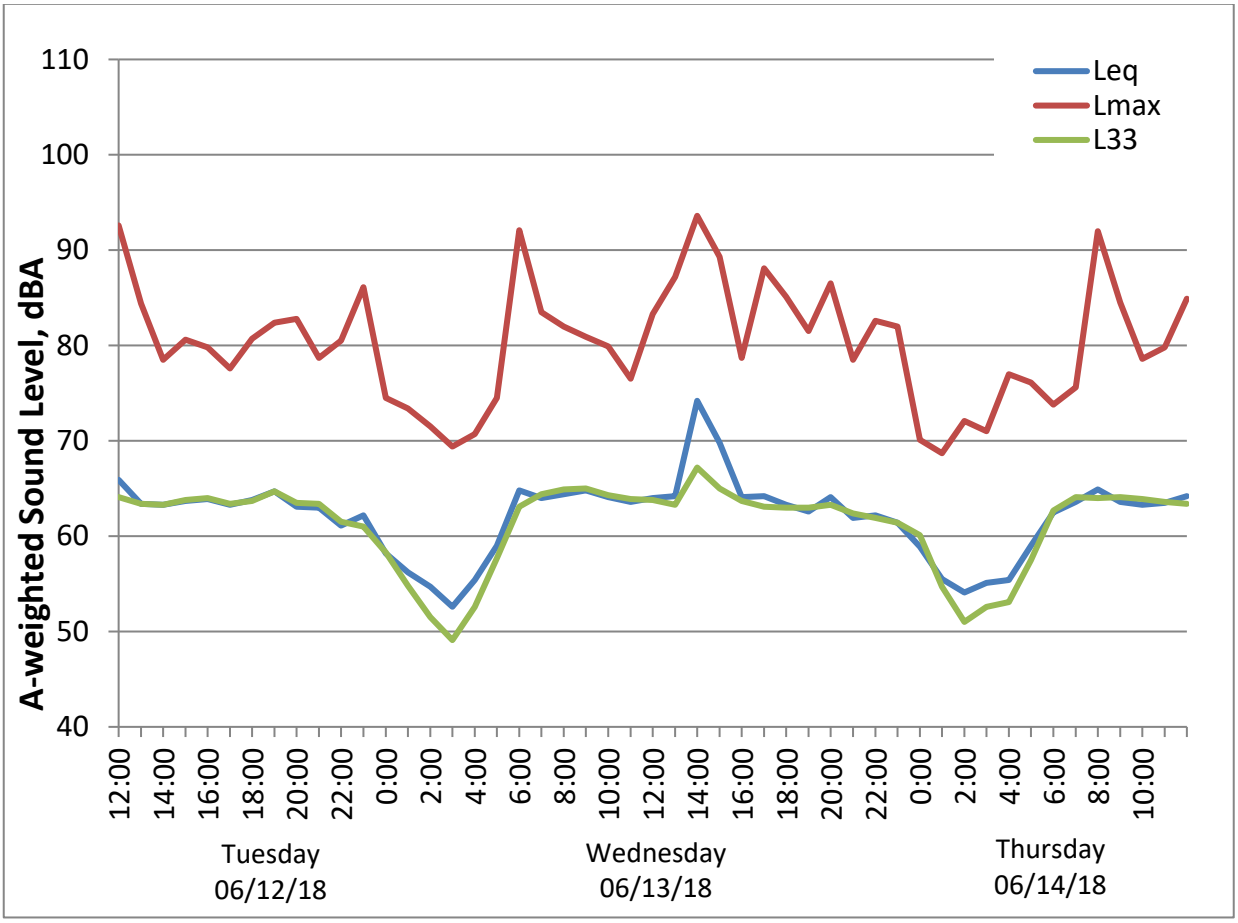


Table 1: Short-Term Noise Measurement Results – 12 & 14 June 2018

Location/ Height Above Ground		Date/Time	L_{eq}	L_1	L_{33}	L_{max}	L_{dn}*
ST-1	24’	6/12/18 12:28 PM – 12:43 PM	64	70	64	73	70
ST-2	24’	6/14/18 11:30 AM – 11:45 AM	65	72	65	78	71
	5’	6/14/18 11:30 AM – 11:45 AM	60	67	60	71	66
ST-3	24’	6/12/18 11:50 AM – 12:05 PM	64	67	64	73	68

*L_{dn} calculated based on correlation with simultaneous measurement at long-term location.

5. Analysis/Recommendations

The following analysis is based on the architectural drawings prepared by Mithun Architects dated 11 July 2018. To account for future traffic volume increases, the Menlo Park general plan predicts an increase in L_{dn} of 2.1 dBA by 2035 on major nearby roadways, which has been integrated into our analysis.

5.1. Residential Units

5.1.1. Exterior Noise

The proposed building would be exposed to a future exterior L_{dn} of 68 to 71 dBA along Willow Road. The noise exposure in the landscaped courtyard is projected to have an L_{dn} of 65 dBA or less due to the acoustical shielding provided by the project and adjacent buildings, and thus, is considered “normally acceptable” according to the Menlo Park general plan.

5.1.2. Interior Noise

The current exterior noise of L_{dn} of 68 dBA at the building setback is considered “conditionally acceptable” for multi-family residential development according to the Menlo Park general plan. It should be noted, however, that as traffic volumes increase over time, the exterior noise L_{dn} may approach the “normally unacceptable” category (70 dBA). The policy states that development may be undertaken only if a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction with closed windows and fresh air supply systems or air conditioning will normally suffice. The State of California Building Code requires that interior noise levels be reduced to an L_{dn} of 45 dBA or less in habitable rooms. Achieving the State requirement would require the use of sound rated windows and doors for some units.

According to the typical exterior wall detail we received on July 18, 2018, the exterior wall consists of fiber cement lap siding. Figures 4-8 show the recommended sound ratings for windows to achieve the residential interior standard of L_{dn} 45 dBA. All patio doors along Willow Rd. must have a minimum STC of 28.

5.2. Non-Residential Occupancies

These rooms consist of a conference room, computer lab and offices on the first and second floors along Willow Rd. In order to meet the CALGreen interior noise level requirement (L_{eq} of 50 dBA) these windows will require a minimum STC rating of 28 (See Figures 6 and 8).

Please note that:

- The STC rating applies to the glass and the frame as a system. The performance of the windows and balcony doors should be documented by acoustical laboratory test reports.

- Windows in all rooms requiring sound ratings will need to be in the closed position to meet the required interior noise level as per CBC 1207.4. This may affect how the project provides adequate outside (fresh) air in dwelling units. The determination of the project's requirements for ventilation and fresh air is outside our scope of work. However, if the project's mechanical engineer determines that the building code requires outside air, then open windows cannot be relied upon for natural ventilation and an alternative ventilation system should be provided. An acoustical consultant should review the ventilation system design to confirm that it does not compromise the noise reduction provided by the window and wall assembly.

Figure 4: Recommended Window STC Rating
Section A, Levels 1-4

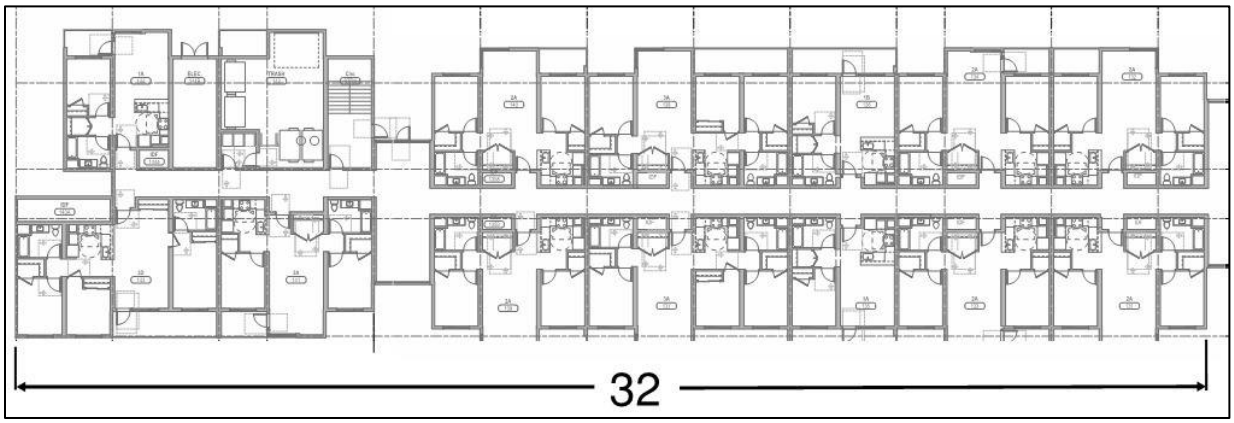


Figure 5: Recommended Window STC Rating
Section B, Levels 1, 3 and 4

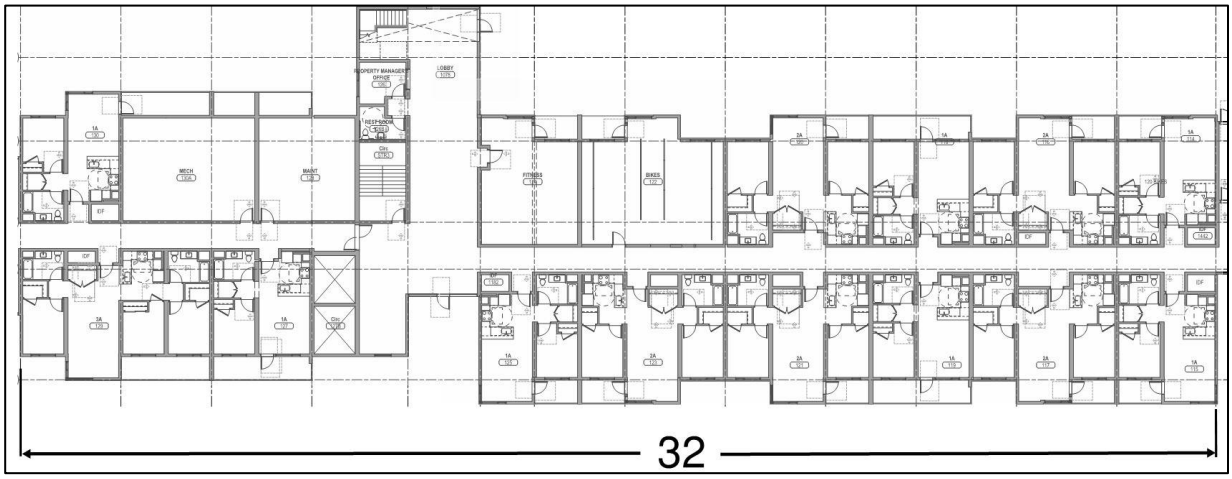


Figure 6: Recommended Window STC Ratings
Section B, Level 2

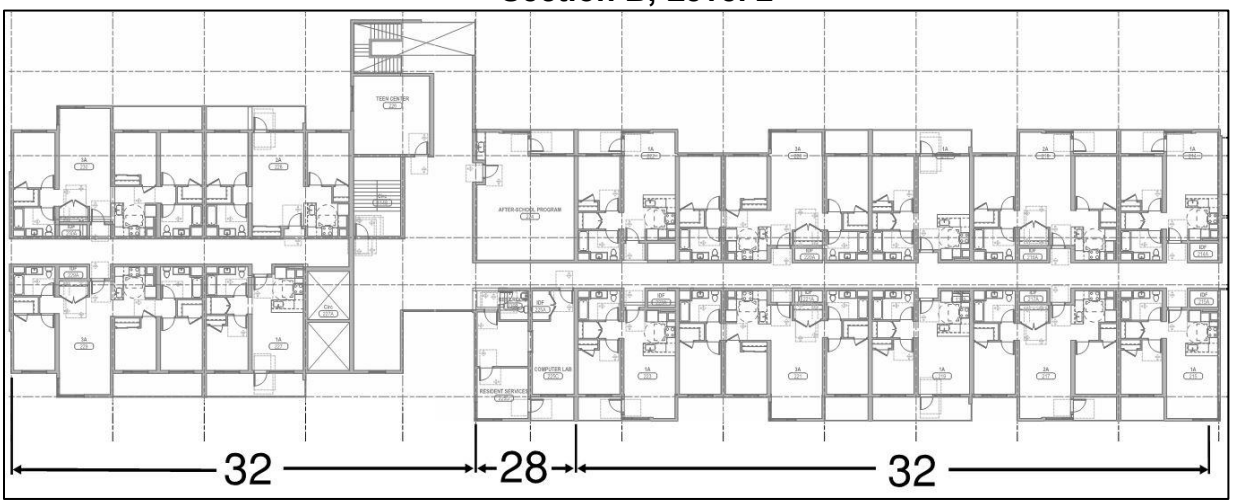


Figure 7: Recommended Window STC Rating
Section C, Levels 2-4

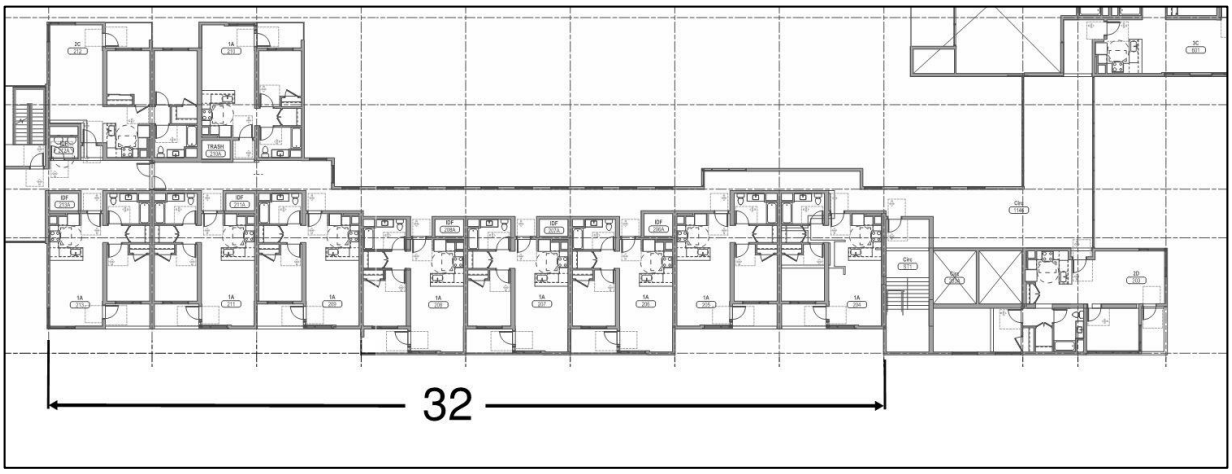
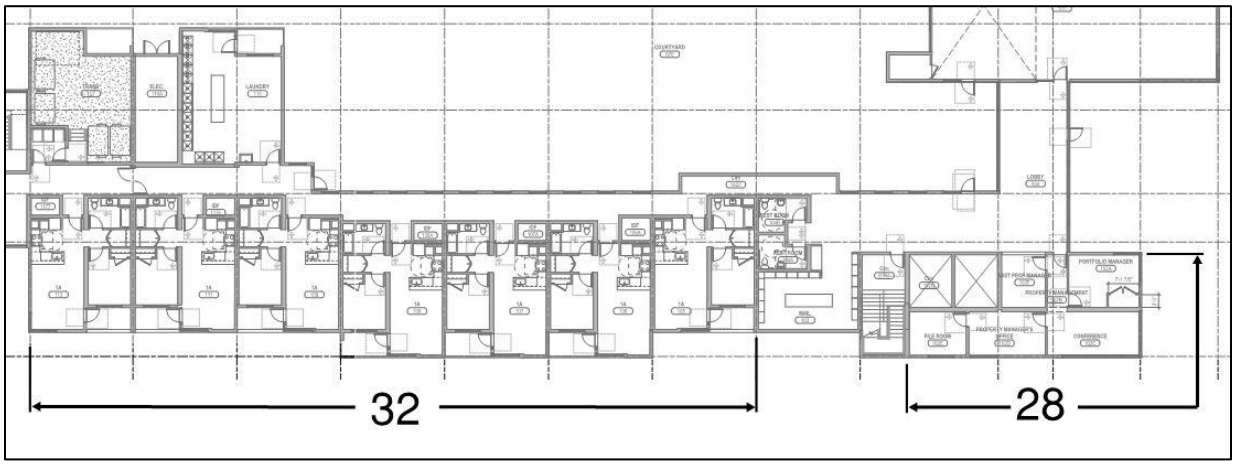


Figure 8: Recommended Window STC Ratings
Section C, Level 1



* * *

Appendix H – Soils and Miscellaneous

- United States Environmental Protection Agency. *EJSCREEN Report, Gateway Family Housing.* May 27, 2019.
- RockRidge Geotechnical. *Supplemental Geotechnical Investigation, Proposed Gateway Family Housing, 1345 Willow Road, Menlo Park, California.* July 19, 2018. Project No. 18-1509.

EJSCREEN Report (Version 2018)

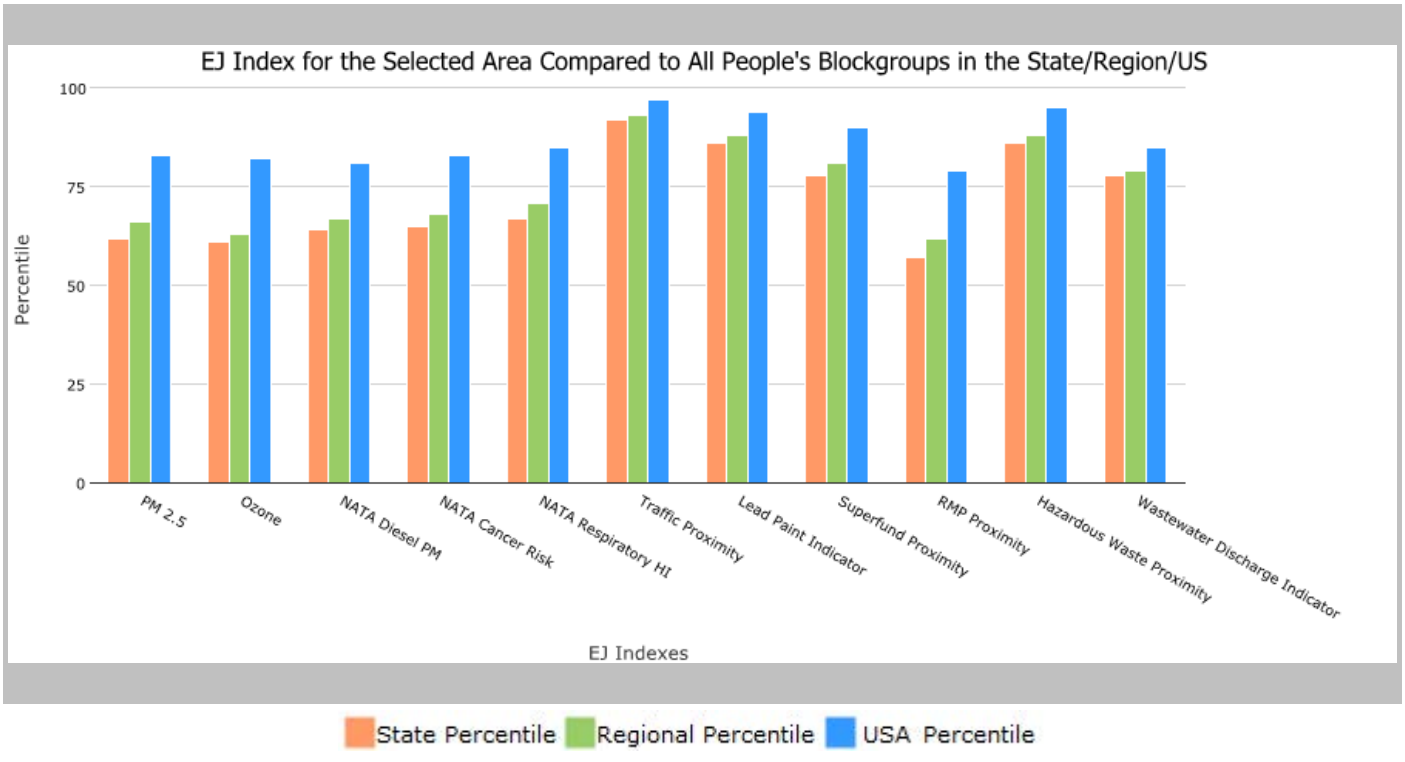
1 mile Ring Centered at 37.478347,-122.152732, CALIFORNIA, EPA Region 9

Approximate Population: 17,684

Input Area (sq. miles): 3.14

Gateway Family Housing (The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	62	66	83
EJ Index for Ozone	61	63	82
EJ Index for NATA* Diesel PM	64	67	81
EJ Index for NATA* Air Toxics Cancer Risk	65	68	83
EJ Index for NATA* Respiratory Hazard Index	67	71	85
EJ Index for Traffic Proximity and Volume	92	93	97
EJ Index for Lead Paint Indicator	86	88	94
EJ Index for Superfund Proximity	78	81	90
EJ Index for RMP Proximity	57	62	79
EJ Index for Hazardous Waste Proximity	86	88	95
EJ Index for Wastewater Discharge Indicator	78	79	85



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

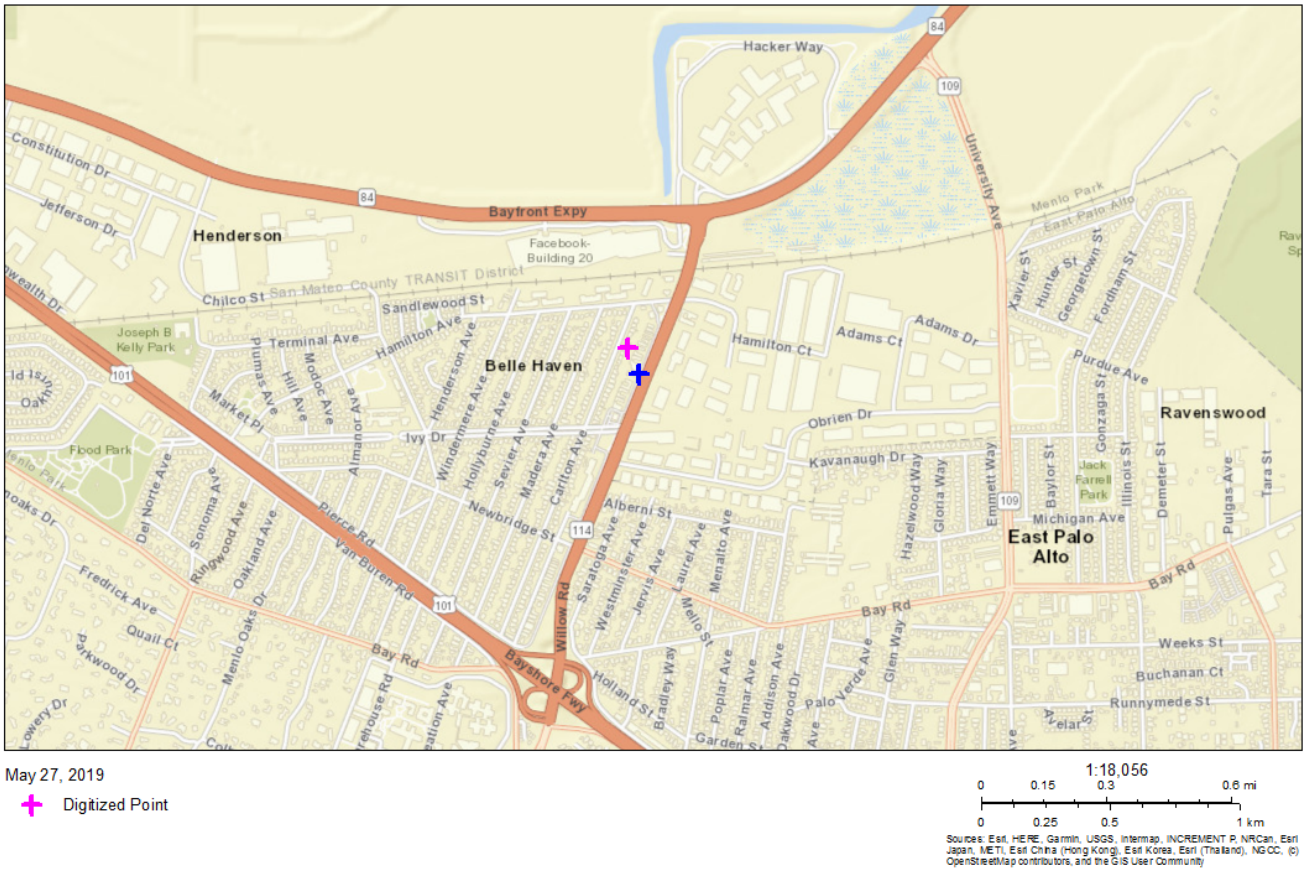
EJSCREEN Report (Version 2018)

1 mile Ring Centered at 37.478347,-122.152732, CALIFORNIA, EPA Region 9

Approximate Population: 17,684

Input Area (sq. miles): 3.14

Gateway Family Housing (The study area contains 1 blockgroup(s) with zero population.)



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	5

EJSCREEN Report (Version 2018)

1 mile Ring Centered at 37.478347,-122.152732, CALIFORNIA, EPA Region 9

Approximate Population: 17,684

Input Area (sq. miles): 3.14

Gateway Family Housing (The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	8.08	10.7	15	10.1	24	9.53	23
Ozone (ppb)	32.4	47.4	9	48.3	7	42.5	4
NATA* Diesel PM (µg/m^3)	0.751	0.972	43	0.978	<50th	0.938	50-60th
NATA* Cancer Risk (lifetime risk per million)	38	44	29	43	<50th	40	<50th
NATA* Respiratory Hazard Index	2	2.1	47	2	50-60th	1.8	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)	3400	1200	90	1100	90	600	96
Lead Paint Indicator (% Pre-1960 Housing)	0.69	0.29	87	0.24	89	0.29	87
Superfund Proximity (site count/km distance)	0.15	0.17	75	0.14	79	0.12	81
RMP Proximity (facility count/km distance)	0.3	1.1	35	0.97	41	0.72	50
Hazardous Waste Proximity (facility count/km distance)	6.7	3.3	84	2.8	87	4.3	93
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00037	16	68	12	69	30	63
Demographic Indicators							
Demographic Index	62%	48%	69	47%	72	36%	83
Minority Population	88%	62%	77	59%	80	38%	89
Low Income Population	36%	35%	55	35%	55	34%	58
Linguistically Isolated Population	12%	9%	67	8%	71	4%	86
Population With Less Than High School Education	27%	18%	71	17%	74	13%	86
Population Under 5 years of age	9%	6%	74	6%	73	6%	76
Population over 64 years of age	8%	13%	27	13%	27	14%	20

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

ROCKRIDGE GEOTECHNICAL

Prepared for **MidPen Housing Corporation**

SUPPLEMENTAL GEOTECHNICAL INVESTIGATION
PROPOSED GATEWAY FAMILY HOUSING
1345 WILLOW ROAD
MENLO PARK, CALIFORNIA

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July 19, 2018
Project No. 18-1509

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ROCKRIDGE GEOTECHNICAL

July 19, 2018
Project No. 18-1509

Ms. Nesreen Kawar
MidPen Housing Corporation
303 Vintage Park Drive, Suite 250
Foster City, California 94404

Subject: Final Report
Supplemental Geotechnical Investigation
Proposed Gateway Family Housing
1300 Block of Willow Road
Menlo Park, California

Dear Ms. Kawar,

We are pleased to present our final geotechnical report, dated July 19, 2018, for the proposed Gateway Family Housing project to be constructed at 1345 Willow Road in Menlo Park, California. Our services are being provided in accordance with our General Consultant Services Agreement with MidPen Housing Corporation, dated May 15, 2018.

The site is rectangular shaped with current plan dimensions of approximately 122 by 893 feet. The ground surface at the site slopes down very gently to the north with ground surface elevations (NAVD88 datum) ranging from about 10-1/2 feet at the southern end of the site to 6-1/2 feet at the northern end. The site is bordered by a grocery store to the south, a service station to the north, and a 20-foot-wide public utility easement and the rear yards of single-family homes to the west. It is currently occupied by two-story, at-grade apartment buildings and a one-story community building. An asphalt-paved frontage road with parking stalls runs along the eastern edge of the site. There are also two small asphalt-paved parking lots along the western edge of the site; one is near the center of the site and the other is at the northern end. We understand the existing buildings have experienced differential movements that have caused distress, including wall cracking and sticking doors and windows.

Plans are to demolish the existing buildings and remove existing utilities occupying the site and to construct a new multi-family residential development. The property lines for the site will be adjusted by shifting to the south and east; the expanded site will encompass the current frontage road/parking area and the new site plan dimensions will be approximately 174 by 954 feet (3.82 acres). The public utilities in the current frontage road will be abandoned and replaced in a new 12-foot-wide public utility easement that

will run along the eastern property line. The new development will include one 3-story and two 4-story at-grade apartment buildings surrounded by landscaped areas and walkways. The apartment buildings will be wood-framed structures that will be built by combining prefabricated modules measuring 11 to 13.25 feet in width and 58 to 70 feet in length. Each building will have a structurally supported wood floor and a crawl space that will include a utility corridor running along the center of the building in the long (north-south) direction. Other proposed site improvements include an at-grade asphalt-paved parking lot/driveway running along the western and northern edges of the property, as well as a landscaped courtyard and one-story community room in the northwestern portion of the site.

From a geotechnical standpoint, we conclude the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concern for this site is the presence of highly expansive near-surface soil that is susceptible to large volume changes with changes in moisture content. These volume changes can cause cracking of foundations and slabs. Therefore, foundations and slabs should be designed and constructed to mitigate the effects of the expansive clay. These effects can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill below exterior slabs, and either supporting foundations below the zone of severe moisture change or providing a stiff, shallow foundation that can limit deformation of the superstructure as the underlying soil shrinks and swells. Based on our discussions with the project team and the proposed modular construction, we conclude the most appropriate foundation type for the proposed buildings would consist of deepened continuous footings running edges of the modules.

The recommendations contained in our report are based on a limited subsurface exploration. Consequently, variations between expected and actual subsurface conditions may be found in localized areas during construction. Therefore, we should be engaged to observe grading, shoring and foundation installation, during which time we may make changes in our recommendations, if deemed necessary.

We appreciate the opportunity to provide our services to you on this project. If you have any questions, please call.

Sincerely yours,
ROCKRIDGE GEOTECHNICAL, INC.

Craig S. Shields, P.E., G.E.
Principal Geotechnical Engineer

Enclosure

ROCKRIDGE GEOTECHNICAL

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APPENDIX C

Logs of Test Borings, CPT Data, and Laboratory Test Results from AMSO Report

ROCKRIDGE GEOTECHNICAL

SUPPLEMENTAL GEOTECHNICAL INVESTIGATION
PROPOSED GATEWAY FAMILY HOUSING
1345 WILLOW ROAD
Menlo Park, California

1.0 INTRODUCTION

This report presents the results of the supplemental geotechnical investigation performed by Rockridge Geotechnical, Inc. for the proposed Gateway Family Housing project to be constructed at 1345 Willow Road in Menlo Park, California. The site is on the western side of Willow Road between Ivy Drive and Hamilton Avenue, as shown on the Site Location Map, Figure 1.

The site is rectangular shaped with current plan dimensions of approximately 122 by 893 feet. The ground surface at the site slopes down very gently to the north with ground surface elevations (NAVD88 datum) ranging from about 10-1/2 feet at the southern end of the site to 6-1/2 feet at the northern end. The site is bordered by a grocery store to the south, a service station to the north, and a 20-foot-wide public utility easement and the rear yards of single-family homes to the west. It is currently occupied by two-story, at-grade apartment buildings and a one-story community building. An asphalt-paved frontage road with parking stalls runs along the eastern edge of the site. There are also two small asphalt-paved parking lots along the western edge of the site; one is near the center of the site and the other is at the northern end. We understand the existing buildings have experienced differential movements that have caused distress, including wall cracking and sticking doors and windows.

Plans are to demolish the existing buildings and remove existing utilities occupying the site and to construct a new multi-family residential development. The property lines for the site will be adjusted by shifting to the south and east; the expanded site will encompass the current frontage road/parking area and the new site plan dimensions will be approximately 174 by 954 feet (3.82 acres). The public utilities in the current frontage road will be abandoned and replaced in a new 12-foot-wide public utility easement that will run along the eastern property line. The new development will include one 3-story and two 4-story at-grade apartment buildings surrounded by landscaped areas and walkways. The apartment buildings will be wood-framed structures that

will be built by combining prefabricated modules measuring 11 to 13.25 feet in width and 58 to 70 feet in length. Each building will have a structurally supported wood floor and a crawl space that will include a utility corridor running along the center of the building in the long (north-south) direction. Other proposed site improvements include an at-grade asphalt-paved parking lot/driveway running along the western and northern edges of the property, as well as a landscaped courtyard and one-story community room in the northwestern portion of the site.

AMSO Consulting Engineers (AMSO) previously performed a geotechnical investigation for this project, the results of which were presented in a report dated June 20, 2013. AMSO investigated subsurface conditions at the site by drilling two borings on May 31, 2013 and performing three cone penetration tests (CPTs) on May 30, 2013. The borings and CPTs were advanced to depths ranging from 20 to 50 feet below the ground surface (bgs). Laboratory testing was performed on selected soil samples to measure moisture content, dry density, Atterberg limits, and unconfined compression strength. The results of corrosivity testing on two near-surface samples were presented in a separate letter prepared by AMSO, dated October 7, 2014. We relied on the subsurface data in the AMSO geotechnical report and corrosivity letter in developing the conclusions and recommendations presented herein. The boring logs and laboratory test data from the AMSO report are presented in Appendix C at the end of this report.

2.0 SCOPE OF WORK

Our services are being provided in accordance with our General Consultant Services Agreement with MidPen Housing Corporation, dated May 15, 2018. Our scope of work consisted reviewing the existing subsurface data, drilling four borings and performing laboratory testing to supplement the existing subsurface data, and performing engineering analyses to develop conclusions and recommendations regarding:

- site seismicity and seismic hazards, including the potential for liquefaction and lateral spreading, and total and differential settlement resulting from liquefaction and/or cyclic densification
- soil and groundwater conditions at the site
- the most appropriate foundation type(s) for the proposed buildings

- design criteria for the recommended foundation type(s), including vertical and lateral capacities
- estimates of foundation settlement under static and seismic conditions
- lateral earth pressures for design of retaining walls, including foundation stem walls
- site grading and excavation, including criteria for the fill quality and compaction acceptability of the on-site stockpiled material for use as fill
- subgrade preparation for exterior concrete slabs-on-grade
- 2016 California Building Code (CBC) site class and design spectral response acceleration parameters
- corrosivity of the near-surface soil and the potential effects on buried concrete and metal structures and foundations
- flexible and rigid pavement design
- construction considerations.

3.0 FIELD INVESTIGATION AND LABORATORY TESTING

To supplement the subsurface data from the previous investigation by AMSO, we drilled four test borings and performed laboratory testing on selected soil samples. Prior to mobilizing to the site, we contacted Underground Service Alert (USA) to notify them of our work, as required by law, and retained a private utility locator, California Utility Locators of Scotts Valley, California, to check that the boring locations were clear of existing utilities. We also submitted a Drilling Notification Form for Annual Geotechnical Drilling Permit to San Mateo County Environmental Health Services Division (SMCEHSD) prior to drilling. Details of the field investigation and laboratory testing are described below.

3.1 Test Borings

Subsurface conditions at the site were explored by drilling four test borings, designated as B-1 through B-4, at the approximate locations shown on Figure 2. The borings were drilled on June 12, 2018 by Benevent Building of Concord, California using a portable drill rig equipped with four-inch-diameter, solid-stem flight augers. The borings were each drilled to a depth of approximately 21-1/2 feet below the existing ground surface (bgs). During drilling, our field geologist logged the soil encountered and obtained representative samples for visual

classification. Logs of the borings are presented on Figures A-1 through A-4 in Appendix A. The soil encountered in the borings was classified in accordance with the classification chart shown on Figure A-5.

Soil samples were obtained using the following samplers:

- Sprague and Henwood (S&H) split-barrel sampler with a 3.0-inch outside diameter and 2.5-inch inside diameter, lined with 2.43-inch inside diameter brass or stainless steel tubes.
- Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside and 1.5-inch inside diameter, without liners.

The samplers were driven with a 140-pound, above-ground, rope-and-cathead safety hammer falling about 30 inches per drop. The samplers were driven 18 inches into the ground and the hammer blows required to drive the samplers were recorded every six inches and are presented on the boring log. A "blow count" is defined as the number of hammer blows per six inches of penetration or 50 blows for six inches or less of penetration. The blow counts required to drive the S&H and SPT samplers were converted to approximate SPT N-values using factors of 0.7 and 1.2, respectively, to account for sampler type and approximate hammer energy. The blow counts used for this conversion were the last two blow counts. The converted SPT N-values are presented on the boring logs.

Upon completion of drilling, the boreholes were backfilled with cement grout as required by SMCEHSD. The soil cuttings generated by the borings were placed in landscaped areas on the site.

3.2 Laboratory Testing

We re-examined each soil sample in the office to confirm the field classification and select representative samples for laboratory testing. Selected soil samples were tested to measure moisture content, dry density, Atterberg limits[1] (plasticity index), and gradation. The laboratory test results are presented on the boring logs and on Figures B-1 and B-2 in Appendix B.

4.0 SUBSURFACE CONDITIONS

Regional geologic information (Figure 3) indicates the site is underlain by Holocene-age basin deposits, which typically consist of fine-grained soils deposited at the distal edge of alluvial fans. Our borings, which were drilled in the paved area along the eastern edge of the site, encountered asphalt concrete pavement up to 11 inches thick underlain by cemented gravel extending to a depth of about two feet bgs.

The results of the previous borings and CPTs by AMSO and our current borings indicate the fill, where encountered, or the ground surface where no fill is present is underlain by medium stiff to very stiff clay with varying sand content interbedded with occasional layers of loose to very dense sand and clayey sand that extends to the maximum depth explored of 50 feet bgs. The granular layers, where encountered, are generally less than a few feet thick except for a layer of medium dense silty and clayey sand encountered between depths of approximately 6 and 14 feet at the CPT-4 location. The results of Atterberg limits tests performed on samples of the near-surface clay indicate the clay has highly to very highly expansive[2] with plasticity indices (PIs) ranging from 34 to 52.

Groundwater was previously measured in May 2013 in the two AMSO borings at depths of about 10 to 11 feet bgs and in the AMSO CPTs at depths ranging from 9.7 to 10.5 feet bgs. We measured groundwater in our borings immediately after completion of drilling at depths ranging from approximately 9.3 to 11.1 feet bgs. The Seismic Hazard Zone report for the Palo Alto

---

1 Atterberg limits are an indirect measure of the expansion potential of the soil.

2 Highly expansive soil undergoes large volume changes with changes in moisture content.

Quadrangle (2006) prepared by the California Geological Survey (CGS) indicates the historic high groundwater level at the site is about 10 feet bgs.

5.0 SEISMIC CONSIDERATIONS

5.1 Regional Seismicity

The site is located in the Coast Ranges geomorphic province of California that is characterized by northwest-trending valleys and ridges. These topographic features are controlled by folds and faults that resulted from the collision of the Farallon plate and North American plate and subsequent strike-slip faulting along the San Andreas Fault system. The San Andreas Fault is more than 600 miles long from Point Arena in the north to the Gulf of California in the south. The Coast Ranges province is bounded on the east by the Great Valley and on the west by the Pacific Ocean.

The major active faults in the area are the San Andreas and Hayward faults. These and other faults in the region are shown on Figure 4. For these and other active faults within a 50-kilometer radius of the site, the distance from the site and estimated mean characteristic Moment magnitude[3] [2007 Working Group on California Earthquake Probabilities (WGCEP) (USGS 2008) and Cao et al. (2003)] are summarized in Table 1.

[3] Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

TABLE 1
Regional Faults and Seismicity

Fault Segment	Approximate Distance from Site (km)	Direction from Site	Mean Characteristic Moment Magnitude
Monte Vista-Shannon	9	Southwest	6.5
N. San Andreas - Peninsula	11	Southwest	7.2
N. San Andreas (1906 event)	11	Southwest	8.0
Total Hayward	19	Northeast	7.0
Total Hayward – Rodgers Creek	19	Northeast	7.3
San Gregorio Connected	27	West	7.5
Total Calaveras	28	East	7.0
N. San Andreas – Santa Cruz	36	Southeast	7.1
Mount Diablo Thrust	41	Northeast	6.7
Zayante - Vergeles	46	Southeast	7.0
Greenville Connected	49	Northeast	7.0
Green Valley Connected	50	Northeast	6.8

Since 1800, four major earthquakes have been recorded on the San Andreas Fault. In 1836, an earthquake with an estimated maximum intensity of VII on the Modified Mercalli (MM) scale occurred east of Monterey Bay on the San Andreas Fault (Toppozada and Borchardt 1998). The estimated Moment magnitude, M_w, for this earthquake is about 6.25. In 1838, an earthquake occurred with an estimated intensity of about VIII-IX (MM), corresponding to an M_w of about 7.5. The San Francisco Earthquake of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas Fault from Shelter Cove to San Juan Bautista approximately 470 kilometers in length. It had a maximum intensity of XI (MM), an M_w of about 7.9, and was felt 560 kilometers away in Oregon, Nevada, and Los Angeles. The most recent earthquake to affect

the Bay Area was the Loma Prieta Earthquake of 17 October 1989 with an M_w of 6.9. This earthquake occurred in the Santa Cruz Mountains about 154 kilometers southwest of the site.

In 1868, an earthquake with an estimated maximum intensity of X on the MM scale occurred on the southern segment (between San Leandro and Fremont) of the Hayward Fault. The estimated M_w for the earthquake is 7.0. In 1861, an earthquake of unknown magnitude (probably an M_w of about 6.5) was reported on the Calaveras Fault. The most recent significant earthquake on this fault was the 1984 Morgan Hill earthquake (M_w = 6.2).

The U.S. Geological Survey's 2014 Working Group on California Earthquake Probabilities has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring in the San Francisco Region during the next 30 years (starting from 2014) is 72 percent. The highest probabilities of occurrence are assigned to the Hayward Fault, Calaveras Fault, and the northern segment of the San Andreas Fault. These probabilities are 14.3, 7.4, and 6.4 percent, respectively.

5.2 Geologic Hazards

Because the project site is in a seismically active region, we evaluated the potential for earthquake-induced geologic hazards including ground shaking, ground surface rupture, liquefaction,[4] lateral spreading,[5] and cyclic densification[6]. We used the results of our field investigation to evaluate the potential of these phenomena occurring at the project site.

[4] Liquefaction is a phenomenon where loose, saturated, cohesionless soil experiences temporary reduction in strength during cyclic loading such as that produced by earthquakes.

[5] Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

[6] Cyclic densification is a phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing ground-surface settlement.

5.2.1 Ground Shaking

The seismicity of the site is governed by the activity of the San Andreas and Hayward faults, although ground shaking from future earthquakes on other faults will also be felt at the site. The intensity of earthquake ground motion at the site will depend upon the characteristics of the generating fault, distance to the earthquake epicenter, and magnitude and duration of the earthquake. We judge that strong to very strong ground shaking could occur at the site during a large earthquake on one of the nearby faults.

5.2.2 Ground Surface Rupture

Historically, ground surface displacements closely follow the trace of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. We therefore conclude the risk of fault offset at the site from a known active fault is very low. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting and consequent secondary ground failure from previously unknown faults is also very low.

5.2.3 Liquefaction and Associated Hazards

When a saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures and sand boils are evidence of excess pore pressure generation and liquefaction.

The site is located within a zone of liquefaction potential as shown on the map titled *State of California Seismic Hazard Zones, Palo Alto Quadrangle, Official Map*, prepared by the California Geological Survey (CGS), dated October 18, 2006 (see Figure 5). CGS has provided recommendations for procedures and report content for site investigations performed within seismic hazard zones in Special Publication 117 (SP-117), titled *Guidelines for Evaluating and*

Mitigating Seismic Hazard Zones in California, dated September 11, 2008. SP-117 recommends subsurface investigations in mapped liquefaction hazard zones be performed using rotary-wash borings and/or CPTs.

Liquefaction susceptibility was assessed using the software CLiq v2.0 (GeoLogismiki, 2016). CLiq uses measured field CPT data and assesses liquefaction potential, including post-earthquake vertical settlement, given a user-defined earthquake magnitude and peak ground acceleration (PGA). We performed a liquefaction triggering analysis using the CPT and boring log data within the site vicinity in accordance with the methodology developed by Boulanger and Idriss (2014). Seismically induced settlements resulting from post-liquefaction reconsolidation were computed using the methodology developed by Zhang et al. (2002).

Our analysis was performed using a high groundwater depth of 10 feet bgs. In accordance with the 2016 CBC, we used a peak ground acceleration of 0.55 times gravity (g) in our liquefaction evaluation; this peak ground acceleration is consistent with the Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects (PGA_M). We also used a Moment magnitude 8.05 earthquake, which is consistent with the mean characteristic Moment magnitude for the San Andreas Fault 1906 event, as presented in Table 1.

Our liquefaction analyses indicate there are thin layers of potentially liquefiable soil between depths of approximately 10 and 34 feet bgs. The localized potentially liquefiable layers underlying the site are generally less than one foot thick, with the exception of an approximately 2.5-foot-thick layer encountered between depths of 11 and 13-1/2 feet at the CPT-4 location . We estimate total and differential free-field ground settlement resulting from post-liquefaction reconsolidation of the liquefiable soil layers following an MCE event with PGA_M of 0.55g on the San Andreas Fault will be less than 3/4 inch and 1/2 inch across a horizontal distance of 30 feet, respectively.

Our analysis and laboratory test results indicate the potentially liquefiable layers are sufficiently thin and/or dense such that the potential for surface manifestations from liquefaction, such as formation of sand boils and loss of bearing capacity for shallow foundations, is low.

Lateral spreading occurs when a continuous layer of soil liquefies at depth and the soil layers above move toward an unsupported face, such as a shoreline slope, or in the direction of a regional slope or gradient. Because the potentially liquefiable soil layers are not continuous, we conclude the potential for lateral spreading to occur at the project site is very low.

5.2.4 Cyclic Densification

Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. The results of our investigation indicate the soil encountered above the groundwater table has sufficient cohesion and/or density, such that the potential for cyclic densification to occur at the site is very low.

6.0 DISCUSSION AND CONCLUSIONS

From a geotechnical standpoint, we conclude the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concerns for the project are: 1) the presence of highly to very highly expansive near-surface soil, and 2) providing adequate foundation support for the new structures. Our conclusions for this and other geotechnical aspects of the project are presented in this section.

6.1 Foundation Support and Settlement

The highly to very highly expansive near-surface clay is subject to large volume changes during seasonal fluctuations in moisture content. These volume changes can cause cracking of foundations and slabs. Therefore, foundations and slabs should be designed and constructed to mitigate the effects of the expansive clay. These effects can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill below exterior slabs, and either supporting foundations below the zone of severe moisture change or providing a stiff, shallow foundation that can limit deformation of the superstructure as the underlying soil shrinks and swells.

Foundation alternatives for sites underlain by highly expansive clay include deepened spread footings, stiffened shallow foundations such as conventionally reinforced concrete mats or post-tensioned (P-T) slabs-on-grade, and drilled, cast-in-place concrete piers. Considering the proposed buildings will have a crawl space and will have continuous wall loads in both the longitudinal and lateral directions, we conclude the most appropriate foundation type for these structures would consist of deepened continuous footings bottomed below the zone of severe moisture change. We can provide recommendations for other foundation types upon request.

We estimate total settlement of the proposed buildings supported on continuous footings will be less than 1-1/4 inches and differential settlement will be less than about 3/4 inch over a horizontal distance of 30 feet. Most of this settlement is expected to occur during construction of the buildings. As discussed above in Section 5.2.3, post-liquefaction reconsolidation after a major earthquake may result in an additional 1/2 inch of differential settlement over a horizontal distance of 30 feet.

6.2 Expansive Soil

On expansive soil sites it is also critical to properly manage surface and subsurface drainage to prevent water from collecting beneath pavements and slabs or behind below-grade walls, where it can lead to cyclic swelling and shrinking of the subgrade soil and can cause subgrade instability under vehicular loads. While the objective of permeable pavement systems and infiltration basins is to allow for water storage and infiltration, we conclude that infiltration into the subgrade soil is not feasible at this site due to the low permeability of the highly expansive clay. Furthermore, from a geotechnical standpoint, water should not be allowed to collect alongside or beneath the building foundation, pavements and flatwork. This can be achieved by providing an impermeable liner and a subdrain beneath permeable surfaces and infiltration basins and installing vertical barriers between permeable surfaces underlain by subdrains and non-permeable surfaces underlain by conventional aggregate base. In addition, to prevent the subgrade soil from becoming saturated, we conclude that permeable aggregate base courses should be underlain by an impermeable liner in zones subject to regular vehicular traffic.

6.3 Concrete Flatwork

Differential ground movement caused by the shrinking and swelling of the highly expansive near-surface soil should be expected. This differential ground movement can damage exterior concrete slabs and pavements. To reduce the magnitude of differential ground movements, the highly expansive soil within 12 inches of the slab subgrade and a lateral extent of six inches beyond the limits of the slab edges should be removed and replaced with non-expansive, select fill, such as Class 2 aggregate base (AB) and/or quarry fines. Alternatively, the upper 12 inches of the exterior slab subgrade may be treated with dolomitic Quicklime. If the lime-treatment option is selected, the exterior slabs should be underlain by four inches of Class 2 AB or quarry fines in addition to the lime-treated soil. Providing 12 to 16 inches of non-expansive soil below exterior slabs will reduce seasonal shrink/swell movements in the near-surface highly expansive clay by reducing the magnitude of the seasonal moisture changes in the highly expansive soil below the non-expansive/lime-treated layer. Based on our experience, lime treatment is generally not cost-effective for small areas, can prevent plant growth in adjacent landscaped areas, and may be costly to dispose of off site because of its high pH.

6.4 Construction Considerations

The soil to be excavated consists of clay with a high moisture content which can be excavated with conventional earth-moving equipment such as loaders and backhoes. Localized sand layers may be encountered where excavations are deeper than about six feet. Because of the high moisture content of the near-surface clay, it is highly susceptible to strength loss under repeated loads by construction equipment traffic. This strength loss will decrease its ability to resist deformation; this phenomenon could result in severe rutting and pumping of the exposed subgrade. To reduce the potential for this behavior, heavy rubber-tired equipment, as well as vibratory rollers, should be avoided. Further, to provide a winterized working surface and to reduce rutting due to construction equipment traffic, we believe it would be prudent to treat the upper 12 inches of soil across the site with lime. Based on data from our borings, it appears there is a relatively thick layer of granular soil underlying the AC pavement on the existing frontage road along the eastern side of the site. Where there is at least 12 inches of the existing

granular material remaining after pavement removal and rough grading, lime treatment will not be necessary. Where it is necessary to remove the granular material to reach subgrade elevation, the material should be stockpiled for reuse as select fill.

The current moisture content of the highly expansive clay underlying the site is generally at least 10 percent above optimum moisture content and cannot be reused as fill or backfill without drying through aeration or lime treatment. Drying of highly expansive clay through aeration to reuse as trench backfill requires significant effort and will not be practical unless there is sufficient space and warm weather. Therefore, for cost estimating purposes, we recommend it be assumed that imported or lime-treated on-site soil will be needed to backfill trenches.

Excavations that will be deeper than five feet and will be entered by workers should be sloped or shored in accordance with CAL-OSHA standards (29 CFR Part 1926). The contractor should be responsible for the construction and safety of temporary slopes. We judge temporary slopes with a maximum inclination of 1:1 (horizontal to vertical) should be stable, provided the slope is not surcharged by adjacent structures, construction equipment, or stockpiled soil.

6.5 Soil Corrosivity

Laboratory testing was performed by Project X Corrosion Engineering to evaluate the corrosivity of the native clay from Boring B-2 at a depth of 2 to 2.5 feet bgs. The results of the corrosivity test are presented in Appendix B of this report. Based on the results of the resistivity test results, the near-surface clay is classified as “highly corrosive” to buried metal. Accordingly, all buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric-coated steel or iron should be protected against corrosion depending upon the critical nature of the structure. The chloride, sulfide, and sulfate ion concentrations and pH of the soil do not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures. If buried metal, including fittings, will be used at the site, we recommend a corrosion consultant be retained to provide site-specific recommendations to address the highly corrosive soil.

7.0 RECOMMENDATIONS

Our recommendations for site preparation and grading, foundation and seismic design, and other geotechnical aspects of the project are presented in this section.

7.1 Site Preparation, Grading, and Fill Placement

Site demolition should include removal of all existing pavements, foundations, and underground utilities. In general, abandoned underground utilities should be removed to the property line or service connections and properly capped or plugged with concrete. Where existing utility lines are outside of the footprint of the proposed improvements and will not interfere with the proposed construction, they may be abandoned in-place provided the lines are filled with lean concrete or cement grout to the property line. Voids resulting from demolition activities and removal of existing utilities should be properly backfilled with engineered fill following the recommendations provided later in this section.

Soil subgrade consisting of on-site highly expansive soil beneath proposed improvements or areas for new fill should be scarified to a depth of at least 12 inches, moisture-conditioned to at least five percent above optimum moisture content, and compacted to between 87 and 92 percent relative compaction[7]. If the soil subgrade consists of low-plasticity on-site fill, it should be moisture-conditioned to above optimum moisture content and compacted to at least 90 percent relative compaction. On-site soil may be used as general fill, provided the material is free of organic matter, contain no rocks or lumps larger than three inches in greatest dimension, and be approved by the Geotechnical Engineer. If material to be used as fill is imported to the site, it should meet the requirements for select fill provided below in Section 7.1.1. A summary of the compaction requirements for the various types of fill that may be used at the site is presented in Table 2.

[7] Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557 laboratory compaction procedure.

TABLE 2
Summary of Compaction Requirements

Location	Required Relative Compaction (percent)	Moisture Requirement
Building pad subgrade – native clay	87 – 92	5+% above optimum
General fill – lime-treated clay	90+	Above optimum
General fill – expansive clay	87 – 92	5+% above optimum
General fill – low-plasticity soil	90+	Above optimum
Utility trench backfill – expansive clay	87 – 92	5+% above optimum
Utility trench backfill – low-plasticity	90+	Above optimum
Utility trench - clean sand or gravel	95+	Near optimum
Pavement subgrade – expansive clay	90+	Above optimum
Pavement subgrade – low-plasticity	95+	Above optimum
Pavement - aggregate base	95+	Near optimum
Exterior slabs – expansive clay	87 – 92	5+% above optimum
Exterior slabs – low-plasticity	90+	Above optimum
Exterior slabs – select fill	90+	Above optimum

If grading work is performed during the rainy season, it is likely the subgrade material will be too wet to compact to the recommended relative compaction and will have to be scarified and aerated to lower its moisture content so the specified compaction can be achieved. Material to be dried by aeration should be scarified to a depth of at least 12 inches; the scarified soil should be turned at least twice a day to promote uniform drying. Once the moisture content of the aerated soil has been reduced to acceptable levels, the soil should be compacted in accordance with our recommendations. Aeration typically is the least costly method used to stabilize the subgrade soil; however, it generally requires the most time to complete. Other soil stabilization alternatives include overexcavating the wet soil and replacing it or mixing it with drier material, and lime treatment of the wet soil.

It is also important that the moisture content of subgrade soil is sufficiently high to reduce the expansion potential. If the grading work is performed during the dry season, moisture-conditioning to increase the moisture content of the soil may be required.

7.1.1 Select Fill

Select fill should consist of imported soil that is free of organic matter, contain no rocks or lumps larger than three inches in greatest dimension, have a liquid limit less than 40 and plasticity index less than 12, and be approved by the Geotechnical Engineer. Select fill should be placed in lifts not exceeding eight inches in loose thickness, moisture-conditioned to above optimum moisture content, and compacted to at least 90 percent relative compaction. Samples of proposed select fill material should be submitted to the Geotechnical Engineer at least three business days prior to use at the site.

The grading contractor should provide analytical test results or other suitable environmental documentation indicating the imported fill is free of hazardous materials at least three days before use at the site. If this data is not provided, a minimum of two weeks will be required to perform any necessary analytical testing.

7.1.2 Lime-Treated Soil

Lime treatment of the upper 12 to 18 inches (depending on the moisture content of the exposed soil) of the on-site clay may be warranted to provide a winterized pad. Lime treatment of the upper 12 inches of the on-site clay below exterior concrete slabs may also be performed to reduce the recommended thickness of non-expansive fill below the slabs from 12 to 4 inches. Lime treatment of fine-grained soils generally includes site preparation, application of lime, mixing, compaction, and curing of the lime treated soil. Field quality control measures should include checking the depth of lime treatment, degree of pulverization, lime spread rate measurement, lime content measurement, and moisture content and density measurements, and mixing efficiency. Quality control may also include laboratory tests for unconfined compressive strength tests on representative samples.

The lime treatment process should be designed by a contractor specializing in its use and who is experienced in the application of lime in similar soil conditions. Based on our experience with lime treatment, we judge that the specialty contractor should be able to treat the highly expansive on-site material to produce a non-expansive fill for the proposed building. For planning purposes, we recommend assuming the lime treatment will consist of six percent of Quicklime by dry weight of soil and a dry density of 105 pounds per cubic foot (pcf) for the treated soil. The specialty contractor should confirm this amount is suitable and prepare a treatment specification for our review prior to construction.

7.1.3 Exterior Concrete Flatwork

We recommend exterior concrete flatwork, including sidewalks, be underlain by at least 12 inches of imported or on-site select (non-expansive) fill or 4 inches of select fill and 12 inches of lime-treated on-site soil; the select fill/lime-treated soil should extend at least six inches beyond the slab edges. Select fill and/or lime-treated soil beneath exterior slabs-on-grade should be moisture-conditioned and compacted in accordance with the requirements provided above in Table 2.

Even if underlain by 12 to 16 inches of non-expansive soil, exterior slabs may experience some cracking due to shrinking and swelling of the underlying expansive soil. Thickening the slab edges and adding additional reinforcement will control this cracking to some degree. Where slabs are adjacent to landscaped areas, thickening the concrete edge to extend to the bottom of the select fill underlying the flatwork will help control water infiltration beneath the slabs. In addition, where slabs provide access to buildings, it would be prudent to dowel the entrance to the building to permit rotation of the slab as the exterior ground shrinks and swells and to prevent a vertical offset at the entries.

7.1.4 Utility Trench Backfill

Excavations for utility trenches can be readily made with a backhoe. All trenches should conform to the current CAL-OSHA requirements. To provide uniform support, pipes or conduits should be bedded on a minimum of four inches of sand or fine gravel. After the pipes and

conduits are tested, inspected (if required) and approved, they should be covered to a depth of six inches with sand or fine gravel, which should be mechanically tamped. The pipe bedding and cover should be eliminated where an impermeable plug is required as described below. Backfill for utility trenches and other excavations is also considered fill, and should be placed and compacted as according to the recommendations previously presented. If imported clean sand or gravel (defined as soil with less than 10 percent fines) is used as backfill, it should be compacted to at least 95 percent relative compaction. Jetting of trench backfill should not be permitted. Special care should be taken when backfilling utility trenches in pavement areas. Poor compaction may cause excessive settlements, resulting in damage to the pavement section.

Foundations for the proposed buildings should be bottomed below an imaginary line extending up at a 1.5:1 (horizontal to vertical) inclination from the base of utility trenches. Alternatively, the portion of the utility trench (excluding bedding) that is below the 1.5:1 line can be backfilled with controlled low-strength material (CLSM) with a 28-day unconfined compressive strength of at least 100 pounds per square inch (psi) or Class 2 aggregate base compacted to at least 95 percent relative compaction.

Where utility trenches enter the building pads, an impermeable plug consisting of CLSM, at least three feet in length, should be installed where the trenches enter the building footprint. Furthermore, where sand- or gravel-backfilled trenches cross planter areas and pass below asphalt or concrete pavements, a similar plug should be placed at the edge of the pavement. The purpose of these recommendations is to reduce the potential for water to become trapped in trenches beneath the buildings or pavements. This trapped water can cause heaving of soils beneath slabs and softening of subgrade soil beneath pavements.

7.1.5 Drainage and Landscaping

Positive surface drainage should be provided around the buildings to direct surface water away from the foundations. To reduce the potential for water ponding adjacent to the buildings, we recommend the ground surface within a horizontal distance of five feet from the buildings slope down away from the buildings with a surface gradient of at least two percent in unpaved areas

and one percent in paved areas. In addition, roof downspouts should be discharged into controlled drainage facilities to keep the water away from the foundations. The use of water-intensive landscaping around the perimeter of the buildings should be avoided to reduce the amount of water introduced to the expansive clay subgrade.

Care should be taken to minimize the potential for subsurface water to collect beneath pavements and pedestrian walkways. Where landscape beds and tree wells are immediately adjacent to pavements and flatwork, we recommend vertical cutoff barriers be incorporated into the design to prevent irrigation water from saturating the subgrade and aggregate base. These barriers may consist of either flexible impermeable membranes or deepened concrete curbs.

Prior experience and industry literature indicate that some species of high water-demand[8] trees can induce ground-surface settlement by drawing water from the expansive clay, causing it to shrink. Where these types of trees are planted near buildings, the ground-surface settlement may result in damage to structure. This problem usually occurs 10 or more years after planting, as the trees reach mature height. To reduce the risk of tree-induced, building settlement, we recommend trees of the following genera are not planted within 25 feet of the proposed building: *Eucalyptus, Populus, Quercus, Crataegus, Salix, Sorbus* (simple-leafed), *Ulmus, Cupressus, Chamaecyparis,* and *Cupressocyparis.* Because this is a limited list and does not include all genera that may induce ground-surface settlement, a tree specialist should be consulted prior to selection of trees to be planted at the site.

7.2 Footing Design

The proposed buildings may be supported on deepened spread footings bottomed on stiff native soil and/or properly compacted fill provided the building crawl space surface is sealed with a vapor retarder overlain by a two-inch-thick, unreinforced "rat" slab. Continuous footings should be at least 18 inches wide and isolated spread footings should be at least 24 inches wide. Footings should bottom at least 12 inches below the crawl space subgrade (i.e., the bottom of the

[8] "Water-demand" refers to the ability of the tree to withdraw large amounts of water from the soil subgrade, rather than soil suction exerted by the root system.

rat slab) for interior footings. Exterior footings should bottom at least 36 inches below the adjacent exterior finished grade or 12 inches below the crawl space subgrade, whichever is lower. To minimize the potential for drying of the bottom of footing excavations during the summer months or saturation and softening of the footing excavation bottoms during the rainy season, a rat slab consisting of at least of two inches of controlled low-strength material (CLSM) with a minimum 28-day compressive strength of 100 psi should be placed in the footing bottoms within two days of excavation. For exterior footings, the portion of the footing excavations below a depth of 18 inches below the exterior finished grade may also be filled with CLSM.

We recommend all footings be founded below an imaginary plane extending up at an inclination of 1.5:1 (horizontal to vertical) from the base of any vault, utility trench, and bioswale/storm water treatment areas. If the design footing elevation is above this plane, the footing can either be deepened or over-excavated below the influence line and backfilled with CLSM to the design footing elevation.

Footings may be designed using allowable bearing pressures of 2,500 pounds per square foot (psf) for dead-plus-live loads and 3,330 psf for total design loads, which includes wind or seismic forces. These values include factors of safety of at least 2.0 and 1.5, respectively.

Lateral loads may be resisted by a combination of passive pressure on the vertical faces of the footings and friction between the bottoms of the footings and the underlying soil. To compute lateral resistance for footings, we recommend using a uniform pressure of 1,000 psf for transient load conditions and an equivalent fluid weight of 230 pcf for sustained load conditions. The upper foot of soil should be ignored when computing passive resistance unless confined by a slab or pavement. Frictional resistance should be computed using a base friction coefficient of 0.30.

Footing excavations should bottom in stiff native soil and/or properly compacted fill and should be free of standing water, debris, and weak or disturbed materials prior to placing the rat slab. The bottoms and sides of the footing excavations must be maintained in a moist condition until the rat slab is placed. We should check the excavations prior to placement of the rat slab.

7.2.1 Water Vapor Retarder

To reduce water vapor transmission into the crawl spaces, we recommend a vapor retarder be placed between the bottom of the two-inch-thick rat slab and the underlying subgrade soil. The vapor retarder should be at least 15 mils thick and meet the requirements for Class A vapor retarders stated in ASTM E1745. The vapor retarder should be placed in accordance with the requirements of ASTM E1643. These requirements include overlapping seams by six inches, taping seams, and sealing penetrations in the vapor retarder.

7.3 Retaining Walls

Retaining walls, including building stems walls, should be designed to resist static lateral earth pressures, lateral pressures caused by earthquakes, and traffic loads (if vehicular traffic is expected within 10 feet of the wall). All on-site walls, including low landscaped walls, should be designed in accordance with the recommendations presented in this section. Retaining walls that are restrained from movement at the top or sides (e.g., a wall with a 90-degree turn) should be designed for at-rest pressures presented in Table 3. Walls that are not restrained from rotation may be designed for active pressures presented in Table 3.

TABLE 3
Lateral Earth Pressures for Retaining Wall Design

Soil Backfill Type	Active Static Condition (Unrestrained)	At-Rest Static Condition (Restrained)	Seismic Condition
On-site Expansive Clay	65 pcf[1]	65 pcf	45 pcf + 9 pcf
Imported Select Fill	34 pcf	54 pcf	35 pcf + 12 pcf

1. Equivalent fluid weight (triangular distribution); pcf = pounds per cubic foot

The design pressures recommended above are based on fully drained walls. Although the retaining walls will be above the groundwater level, water can accumulate behind the walls from other sources, such as rainfall, irrigation, and broken water lines. One acceptable method for

backdraining a retaining wall is to place a prefabricated drainage panel against the back of the wall. The drainage panel should extend down to a perforated PVC collector pipe at the base of the wall. The pipe should be surrounded on all sides by at least four inches of Caltrans Class 2 permeable material or 3/4-inch drain rock wrapped in filter fabric (Mirafi NC or equivalent). AdvanEdge pipe or equivalent may be used in lieu of the pipe and permeable material. The pipe should be sloped at an inclination of at least one percent to a suitable discharge location.

Wall backfill material and compaction should conform to the recommendations presented previously in Section 7.1. The upper foot of backfill should consist of low-permeability backfill material to limit surface water infiltration into the backfill. Lightweight compaction equipment should be used to reduce stresses induced on the retaining walls during fill placement unless the walls are appropriately braced.

Free-standing retaining walls may be supported on spread footings bottomed at least 36 inches below the lowest adjacent grade. Footings should be at least 18 inches wide and should be designed using allowable bearing pressures of 2,500 and 3,330 psf for dead-plus-live and total load conditions, respectively. Resistance to lateral loads may be computed using passive resistance and friction between the bottom of the footing and the supporting soil. To compute passive resistance for transient load conditions, a uniform passive pressure of 1,000 psf may be used. To compute passive resistance for sustained loading, an equivalent fluid weight of 230 pcf should be used. The upper foot of soil should be ignored in computing passive resistance unless the soil is confined by pavement or flatwork. To compute frictional resistance, a friction factor of 0.30 should be used. The passive pressure and friction factor include factors of safety of 1.5 and may be used in combination without reduction.

The soil exposed at the bottoms and sides of footing excavations must be kept moist and free of shrinkage cracks prior to concrete placement. To protect the footings from drying to summer months and saturation during winter months, we recommend a rat slab consisting of at least two inches of CLSM be placed in all footing excavations.

7.4 Pavement Design

Design recommendations for asphalt and Portland cement concrete pavements are presented in the following sections.

7.4.1 Flexible (Asphalt Concrete) Pavement Design

The State of California flexible pavement design method was used to develop the recommended asphalt concrete pavement sections. The final soil subgrade in asphalt-paved areas may consist of native clay or lime-treated native clay. If lime treatment is used to strengthen the soil subgrade, a minimum treatment depth of 18 inches should be used. Based on our experience, we assumed R-values of 5 and 25 for the untreated and lime-treated highly expansive clay, respectively. The Civil Engineer for the project should check that the TI's presented in this report are appropriate for the intended use. We can provide additional pavement sections for different TIs if needed.

TABLE 4
AC Pavement Sections

TI	Subgrade Lime Treated ?	Asphaltic Concrete (inches)	Class 2 Aggregate Base R = 78 (inches)
4.5	No	2.5	9.5
4.5	Yes	2.5	6.0
5.0	No	3.0	10.0
5.0	Yes	3.0	6.0
5.5	No	3.0	12.0
5.5	Yes	3.0	6.0
6.0	No	3.5	13.0
6.0	Yes	3.5	6.0
6.5	No	4.0	13.5
6.5	Yes	4.0	6.0

The soil subgrade beneath AC pavements should be prepared and compacted in accordance with the recommendations presented in Section 6.1. In addition, the subgrade should be a firm and non-yielding surface. The subgrade should be proof-rolled to confirm it is non-yielding prior to placing the aggregate base. The Class 2 aggregate base should be moisture-conditioned to near optimum moisture content and compacted to at least 95 percent relative compaction.

If pavements slope down away from irrigated landscaped areas, curbs adjacent to those areas should extend through the aggregate base and at least three inches into the underlying soil to reduce the potential for irrigation water to infiltrate into the pavement section. If drip irrigation is used in the landscaping adjacent to the pavement, however, the deepened curb is not required.

7.4.2 Rigid (Portland Cement Concrete) Pavement

Concrete pavement design is based on a maximum single-axle load of 20,000 pounds and a maximum tandem axle load of 36,000 pounds and moderate truck traffic (i.e., several trucks per week). The recommended rigid pavement section for these axle loads is 6.5 inches of Portland cement concrete (PCC) over six inches of Class 2 aggregate base. For areas that will receive fire truck traffic, the PCC thickness should be increased to 7.0 inches. For areas that will experience only passenger vehicle traffic, the recommended pavement section is five inches of PCC over six inches of Class 2 aggregate base.

The modulus of rupture and unconfined compressive strength of the concrete should be at least 500 and 3,200 pounds per square inch (psi) at 28 days, respectively. Contraction joints should be placed at maximum spacing of 15 feet. Where the outer edge of a concrete pavement meets asphalt pavement, the concrete slab should be thickened by 50 percent at a taper not to exceed a slope of 1 in 10. The pavement should be reinforced with a minimum of No. 4 bars at 18 inches on center in both directions. Recommendations for subgrade preparation and aggregate base compaction for concrete pavement are the same as those we have described above for asphalt concrete pavement.

7.5 Seismic Design

For design in accordance with the 2016 CBC, we recommend Site Class D be used. The latitude and longitude of the site are 37.4752° and -122.1539°, respectively. Hence, in accordance with the 2016 CBC, we recommend the following:

- S_S = 1.50g, S_1 = 0.614g
- S_{MS} = 1.50g, S_{M1} = 0.921g
- S_{DS} = 1.00g, S_{D1} = 0.614g
- Seismic Design Category D for Risk Categories I, II, and III.

8.0 GEOTECHNICAL SERVICES DURING CONSTRUCTION

Prior to construction, Rockridge Geotechnical should review the project plans and specifications to verify that they conform to the intent of our recommendations. During construction, our field engineer should provide on-site observation and testing during site preparation, placement and compaction of fill, and installation of foundations. These observations will allow us to compare actual with anticipated soil conditions and to verify that the contractor's work conforms to the geotechnical aspects of the plans and specifications.

9.0 LIMITATIONS

This geotechnical study has been conducted in accordance with the standard of care commonly used as state-of-practice in the profession. No other warranties are either expressed or implied. The recommendations made in this report are based on the assumption that the subsurface conditions do not deviate appreciably from those disclosed in the AMSO test borings and CPTs and the borings we drilled for this investigation. If any variations or undesirable conditions are encountered during construction, we should be notified so that additional recommendations can be made. The foundation recommendations presented in this report are developed exclusively for the proposed development described in this report and are not valid for other locations and construction in the project vicinity.

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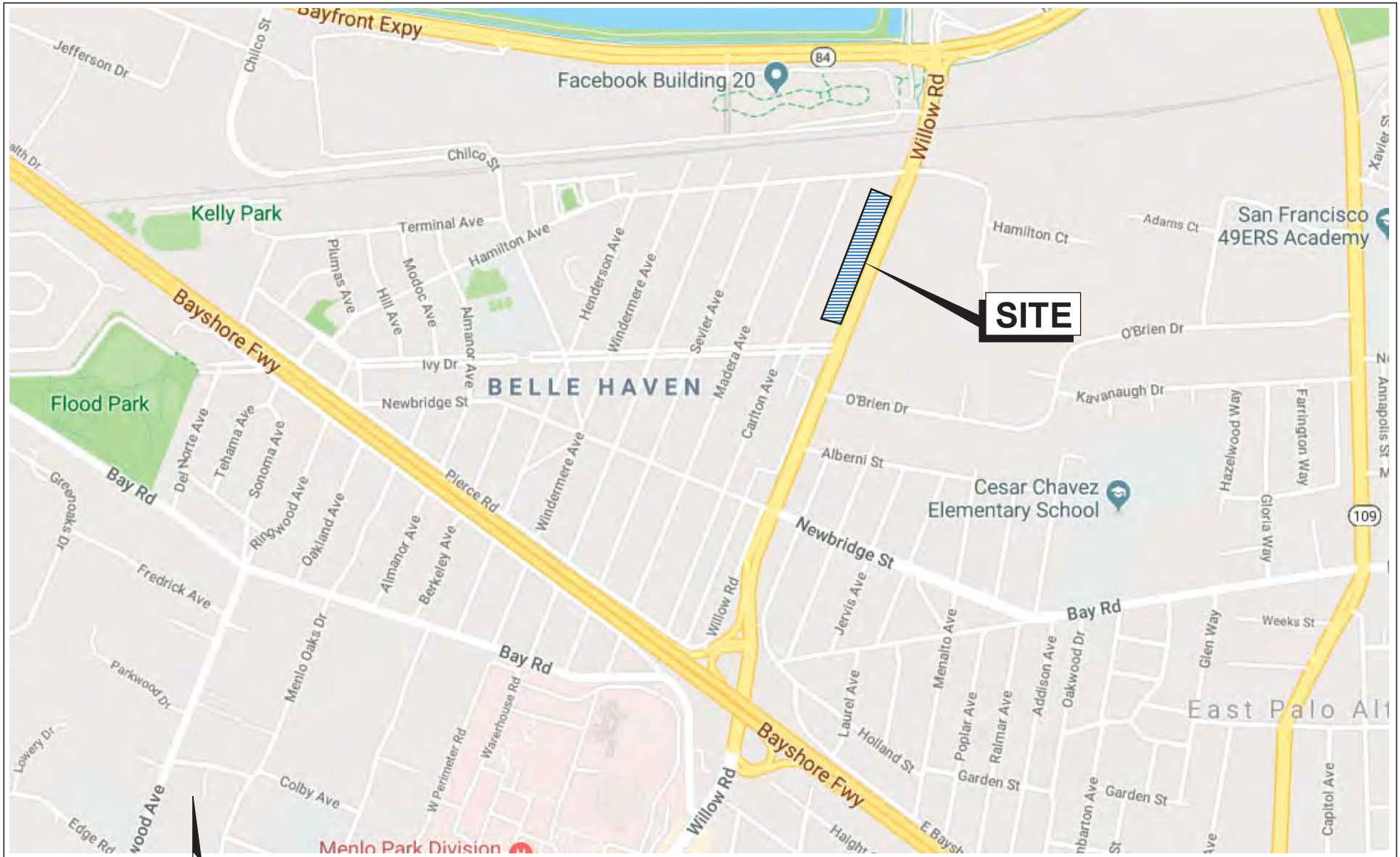
ROCKRIDGE GEOTECHNICAL

FIGURES



Base map: Google Map, 2018

0 1,000 2,000 Feet

Approximate scale

GATEWAY FAMILY HOUSING
Menlo Park, California

ROCKRIDGE GEOTECHNICAL

SITE LOCATION MAP

Date 06/28/18	Project No. 18-1509	Figure 1

EXPLANATION

B-1 — Approximate location of boring by Rockridge Geotechnical Inc., June 12, 2018

PB-3 — Approximate location of previous boring by AMSO Consulting Engineers, May 31, 2013

CPT-4 — Approximate location of previous cone penetration test by AMSO Consulting Engineers, May 31, 2013

Project limits

0 80 Feet

Approximate scale

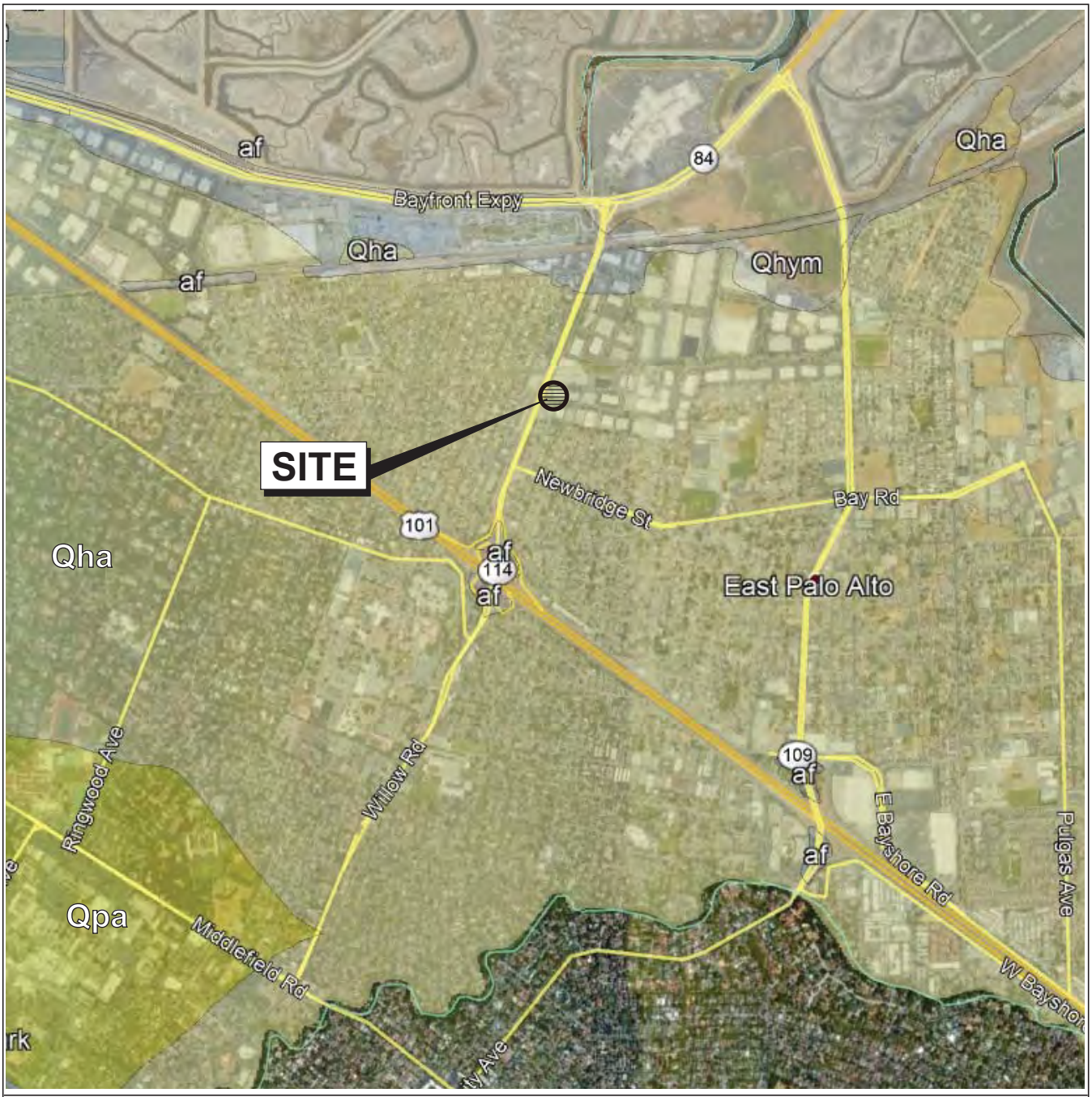
Reference: Base map from a drawing titled "Conceptual Site Plan", dated April 16, 2018.

GATEWAY FAMILY HOUSING
Menlo Park, California

SITE PLAN

Date 07/05/18	Project No. 18-1509	Figure 2

ROCKRIDGE GEOTECHNICAL



Base map: Google Earth with U.S. Geological Survey (USGS), San Mateo County, 2018.

EXPLANATION

af	Artificial Fill
Qhym	Mud deposits (late Holocene)
Qha	Alluvium (Holocene)
Qpa	Alluvium (Pleistocene)
	Geologic contact: dashed where approximate and dotted where concealed, queried where uncertin

N

0 2000 4000 Feet

Approximate scale

GATEWAY FAMILY HOUSING
Menlo Park, California

REGIONAL GEOLOGIC MAP

ROCKRIDGE GEOTECHNICAL

Date 06/20/18 | Project No. 18-1509 | Figure 3

Base Map: U.S. Geological Survey (USGS), National Seismic Hazards Maps - Fault Sources, 2008.

EXPLANATION

- Strike slip
- Thrust (Reverse)
- Normal

Approximate scale

GATEWAY FAMILY HOUSING
Menlo Park, California

REGIONAL FAULT MAP

ROCKRIDGE GEOTECHNICAL

Date 06/20/18	Project No. 18-1509	Figure 4

EXPLANATION

Liquefaction; Areas where historic occurence of liquefaction, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Earthquake-Induced Landslides; Areas where previous occurence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

0 1,000 2,000 Feet

Approximate scale

Reference:
State of California "Seismic Hazard Zones"
Palo Alto Quadrangle.
Released on October 18, 2006

GATEWAY FAMILY HOUSING
Menlo Park, California

SEISMIC HAZARDS ZONE MAP

ROCKRIDGE GEOTECHNICAL

Date 06/28/18	Project No. 18-1509	Figure 5

ROCKRIDGE GEOTECHNICAL

APPENDIX A

Logs of Test Borings

PROJECT:	**GATEWAY FAMILY HOUSING** Menlo Park, California	**Log of Boring B-1** PAGE 1 OF 1

Boring location: See Site Plan, Figure 2 | Logged by: R. Ford

Date started: 6/12/18 | Date finished: 6/12/18

Drilling method: 4-Inch Solid Stem Auger

Hammer weight/drop: 140 lbs./30 inches | Hammer type: Safety Hammer

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
1						Asphalt and Cemented Gravel						
2												
3	S&H		7 9 15	17	CH	CLAY (CH) dark brown to dark gray-brown, stiff, wet, trace organics LL = 65, PI = 47; see Appendix B					24.8	100
4												
5	SPT		4 5 9	17	CH	CLAY (CH) dark gray-brown to olive-brown, stiff to very stiff, wet Hydrometer-clay fraction = 44% Particle Size Distribution; see Appendix B				94	23.6	
6												
7	SPT		6 6 7	16	CH	olive-brown with yellow-orange mottled, increased sand content					18.9	
8												
9												
10												
11	SPT		2 3 3	7	CL	SANDY CLAY with GRAVEL (CL) light olive-brown with yellow-orange mottled, medium stiff, wet, fine sand 6/12/2018 (immediately after drilling) Particle Size Distribution; see Appendix B				51	23.8	
12												
13												
14												
15												
16	SPT		4 4 5	11								
17												
18												
19												
20					SC	CLAYEY SAND (SC) light olive-brown, loose, wet, with coarse sand and pebbles						
21	SPT		4 3 4	8								
22												
23												
24												
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 11.1 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 | Figure: A-1

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-2

Boring location: See Site Plan, Figure 2 | Logged by: R. Ford

Date started: 6/12/18 | Date finished: 6/12/18

Drilling method: 4-Inch Solid Stem Auger

Hammer weight/drop: 140 lbs./30 inches | Hammer type: Safety Hammer

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
1						Asphalt and Cemented Gravel						
2												
3	SPT		4 4 7	13	CH	SANDY CLAY (CH) dark gray, gray-brown, light gray mottled, stiff, wet, trace organics						
4												
5	S&H		5 9 11	14	CH	CLAY (CH) dark brown, gray and white mottled, stiff, wet LL = 72, PI = 52; see Appendix B					29.3	94
6						CLAY with SAND (CH) light gray, yellow-brown mottled, stiff to very stiff, wet, trace gravel						
7	SPT		5 6 7	16							24.6	
8					CH							
9												
10						▽ 6/12/2018 (immediately after drilling)						
11	SPT		3 3 3	7		SANDY CLAY (CL) pale yellow to white, yellow-orange, medium stiff, wet						
12					CL							
13												
14						SANDY CLAY (CL) light gray and yellow-red brown, medium stiff, wet, fine sand Particle Size Distribution; see Appendix B						
15												
16	SPT		3 3 4	8						58	24.9	
17					CL							
18												
19												
20						stiff						
21	SPT		5 5 5	12								
22												
23												
24												
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 10.2 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 | Figure: A-2

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-3

Boring location: See Site Plan, Figure 2
Logged by: R. Ford
Date started: 6/12/18 Date finished: 6/12/18
Drilling method: 4-Inch Solid Stem Auger
Hammer weight/drop: 140 lbs./30 inches Hammer type: Safety Hammer
Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
						11 inches of Asphalt Concrete						
1	S&H		32 22 28	35	SC	CLAYEY SAND with GRAVEL (SC) light brown, red-brown mottling, dense, moist FILL					8.8	124
3	SPT		3 5 6	13	CH	CLAY (CH) gray-brown to dark gray, stiff, wet, trace organic material, trace sand Hydrometer-clay fraction = 65% Particle Size Distribution; see Appendix B				86	28.1	
5	SPT		3 4 6	12							28.8	
10	SPT		5 4 5	11		▽ 6/12/2018 (immediately after drilling)						
11					CL	CLAY with GRAVEL (CL) pale yellow to white, yellow-brown mottled, stiff, wet, fine subangular gravel, carbonate nodule						
14						▽ 6/12/2018 (during drilling)						
15	SPT		3 4 5	11	CL	SANDY CLAY (CL) light gray and yellow-orange mottled, stiff, wet, fine sand						
20	SPT		3 4 4	10								
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 10 feet and 14 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 Figure: A-3

ROCKRIDGE 18-1509.GPJ TR.GDT 7/9/18

PROJECT: **GATEWAY FAMILY HOUSING**
Menlo Park, California

Log of Boring B-4

Boring location: See Site Plan, Figure 2 | Logged by: R. Ford

Date started: 6/12/18 | Date finished: 6/12/18

Drilling method: 4-Inch Solid Stem Auger

Hammer weight/drop: 140 lbs./30 inches | Hammer type: Safety Hammer

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES: Sampler Type	SAMPLES: Sample	SAMPLES: Blows/ 6"	SAMPLES: SPT N-Value[1]	LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA: Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
1						Asphalt and Cemented Gravel						
2												
3	SPT		4 4 6	12	CH	CLAY (CH) dark brown, gray and red mottled, stiff, wet, trace organic material, iron staining, trace sand					30.8	
4												
5	S&H		5 8 10	13	CH	CLAY with SAND (CH) dark gray-brown, stiff, wet, carbonade nodules					28.4	94
6												
7	SPT		4 5 7	14	CH	LL = 66, PI = 47; see Appendix B					25.7	
8												
9						▽ 6/12/2018 (immediately after drilling)							
10					CL	SANDY CLAY (CL) olive-brown mottled gray, stiff to very stiff, wet, fine sand						
11	SPT		5 7 8	18								
12					SC	CLAYEY SAND (SC) very light yellow-gray to white, medium dense, wet						
13												
14												
15					CL	SANDY CLAY (CL) light olive gray, stiff, wet						
16	SPT		4 4 5	11								
17												
18												
19						trace coarse sand, medium stiff						
20												
21	SPT		4 3 4	8								
22												
23												
24												
25												

Boring terminated at a depth of 21.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 9.3 feet during drilling.

[1] S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.

ROCKRIDGE GEOTECHNICAL

Project No.: 18-1509 | Figure: A-4

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine -Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML	Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	Silts and Clays LL = > 50	MH	Inorganic silts of high plasticity
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic silts and clays of high plasticity
Highly Organic Soils		PT	Peat and other highly organic soils

GRAIN SIZE CHART

Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4 3" to 3/4" 3/4" to No. 4	76.2 to 4.76 76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 0.075 4.76 to 2.00 2.00 to 0.420 0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

Unstabilized groundwater level

Stabilized groundwater level

SAMPLE DESIGNATIONS/SYMBOLS

Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered

Classification sample taken with Standard Penetration Test sampler

Undisturbed sample taken with thin-walled tube

Disturbed sample

Sampling attempted with no recovery

Core sample

Analytical laboratory sample

Sample taken with Direct Push sampler

Sonic

SAMPLER TYPE

C	Core barrel
CA	California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter
D&M	Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube
O	Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube
PT	Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube
S&H	Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter
SPT	Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter
ST	Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure

GATEWAY FAMILY HOUSING
Menlo Park, California

ROCKRIDGE GEOTECHNICAL

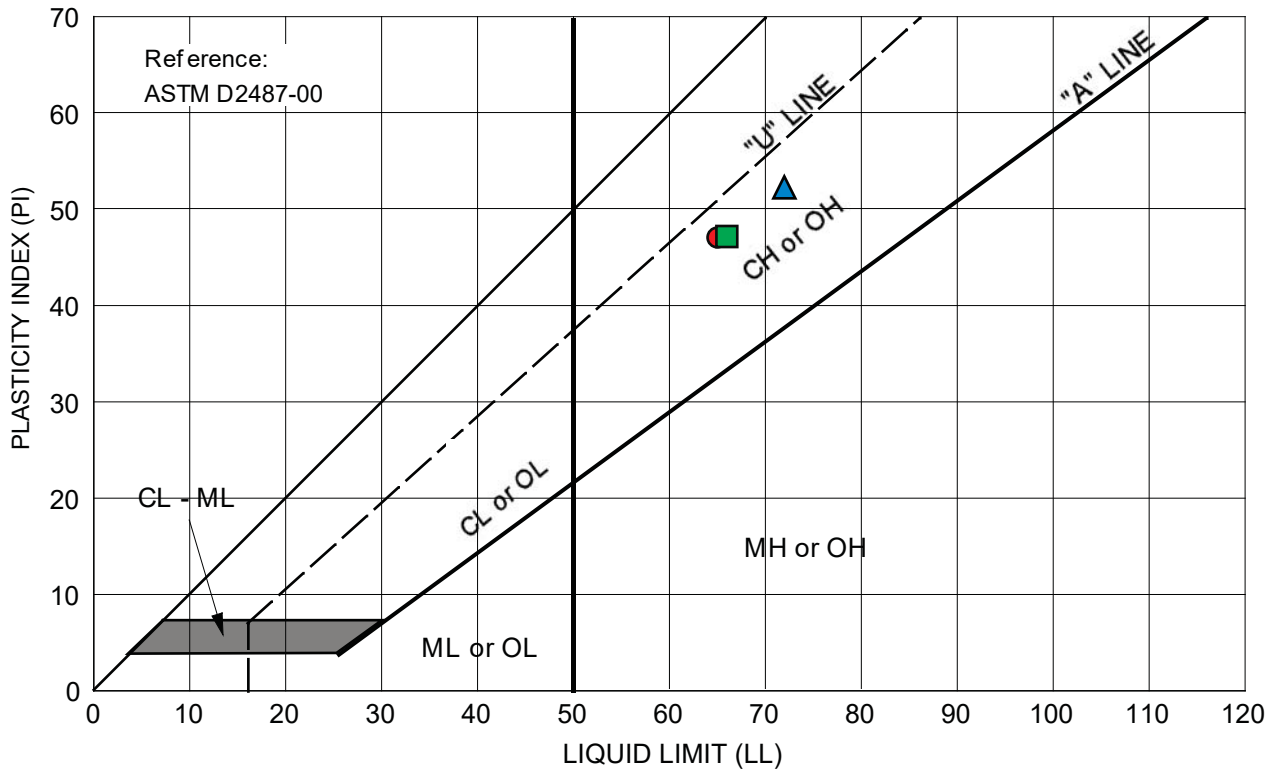
CLASSIFICATION CHART

Date 06/20/18 | Project No. 18-1509 | Figure A-5

ROCKRIDGE GEOTECHNICAL

APPENDIX B

Laboratory Test Results



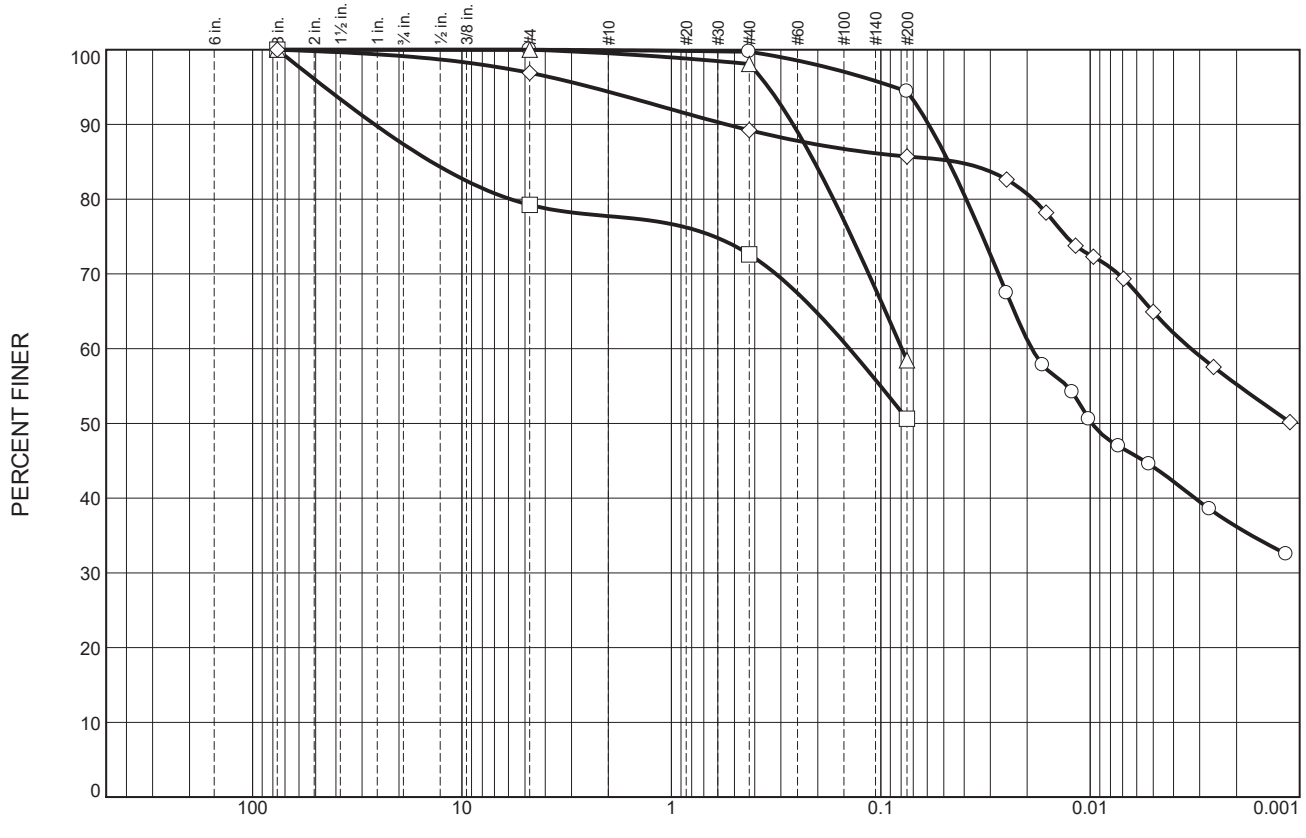
Symbol	Source	Description and Classification	Natural M.C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
●	B-1 at 3.0 feet	CLAY (CH), dark brown to dark gray-brown	24.8	65	47	--
▲	B-2 at 4.5 feet	CLAY (CH), dark brown, gray and white mottled	29.3	72	52	--
■	B-4 at 6.0 feet	CLAY (CH), dark gray-brown	25.7	66	47	--

GATEWAY FAMILY HOUSING
Menlo Park, California

PLASTICITY CHART

ROCKRIDGE GEOTECHNICAL

Date 01/04/18 | Project No. 18-1509 | Figure B-1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	0.2	5.3	50.2	44.2
□	0.0	12.6	8.2	1.5	5.1	22.0	50.6	
△	0.0	0.0	0.0	0.5	1.4	39.7	58.4	
◇	0.0	0.9	2.2	2.5	5.2	3.5	20.8	64.9

SOIL DATA

SYMBOL	SOURCE	DEPTH (ft.)	Material Description	USCS
○	B-1	4.0'	CLAY, dark gray-brown to olive-brown	CH
□	B-1	10.0'	SANDY CLAY, light olive-brown with yellow-orange mottled	CL
△	B-2	15.0'	SANDY CLAY, light gray and yellow-red brown	CL
◇	B-3	3.0'	CLAY, gray-brown to dark gray	CH

GATEWAY FAMILY HOUSING
Menlo Park, California

ROCKRIDGE GEOTECHNICAL

PARTICLE SIZE DISTRIBUTION REPORT

Date 01/04/18 | Project No. 18-1509 | Figure B-2

Results Only Soil Testing for 1300 Willow Street

June 22, 2018

Prepared for:
Craig Shields
Rockridge Geotechnical
270 Grand Ave,
Oakland, CA 94610
csshields@rockridgegeo.com

Project X Job#: S180618D
Client Job or PO#: 18-1509

Soil Analysis Lab Results

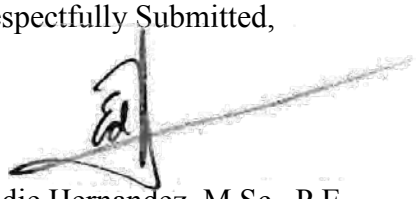
Client: Rockridge Geotechnical
Job Name: 1300 Willow Street
Client Job Number: 18-1509
Project X Job Number: S180618D
June 22, 2018

	Method	ASTM G187		ASTM D516		ASTM D512B		SM 4500-NO3-E	SM 4500-NH3-C	SM 4500-S2-D	ASTM G200	ASTM G51
Bore# / Description	**Depth**	**Resistivity** As Rec'd	Minimum	**Sulfates**		**Chlorides**		**Nitrate**	**Ammonia**	**Sulfide**	**Redox**	**pH**
	(ft)	(Ohm-cm)	(Ohm-cm)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(mg/kg)	(mg/kg)	(mV)	
B-2 / (CH)	2-2.5	590	543	12	0.0012	27	0.0027	6	6.3	0.36	142	8.36

Unk = Unknown
NT = Not Tested
ND = 0 = Not Detected
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
Chemical Analysis performed on 1:3 Soil-To-Water extract

Please call if you have any questions.

Respectfully Submitted,



Eddie Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com

Project X
Corrosion Engineering
Corrosion Control - Soil, Water, and Metallurgy Lab

Lab Request Sheet Chain of Custody
Phone: (213) 928-7213 · Fax (951) 226-1720 · www.projectxcorrosion.com
Ship Samples To: 29970 Technology Dr, Suite 105F, Murrieta, CA 92563

Project X Job Number S180618D Rockridge 18-1509 / Full

IMPORTANT: Please complete Project and Sample Identification Data as you would like it to appear in report & include this form with samples.

Company Name:	Rockridge Geotechnical	**Contact Name:**	Craig Shields — **Phone No. :** 510-420-5738
Mailing Address:	270 Grand Avenue, Oakland 94610	**Contact Email:**	csshields@rockridgegeo.com
Accounting Contact:	Jarka Stepanek	**Invoice Email:**	invoices@rockridgegeo.com
Client Project No:	18-1509	**P.O. #:**	
Project Name:	1300 Willow Street		

Turn Around Time: 5 Day Normal ✓ | 3 Day RUSH 75% mark-up | 2 Day RUSH 100% mark-up

Results By: ☐ Phone ☐ Fax ☑ Email ☐ Mail ☐ Overnight Mail (charges apply)

Date & Received by : **Default Method**

SPECIAL INSTRUCTIONS:

ANALYSIS REQUESTED (Please circle)

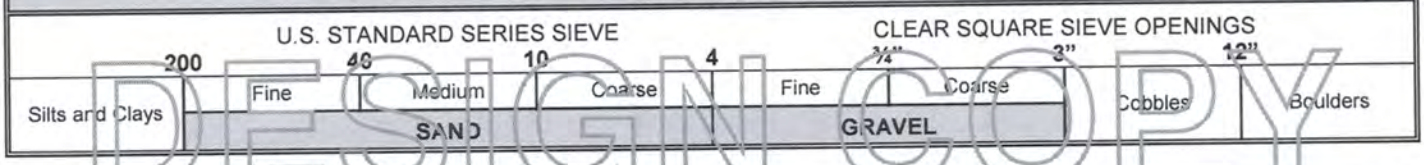
Min. Resistivity, Sulfate, Chloride, Sulfide, Redox, pH, Ammonia, Nitrate	ASTM G187	AASHTO T2888	Caltrans CTM64	Caltrans CTM64	AASHTO T 289	Caltrans CTM41	AASHTO T 290	Caltrans CTM42	AASHTO T 291													
										SM 2580B	SM 2320B	SM 2520B	SM 2510B	Hach 835	SM 4500-NO3	Hach 830	SM 4500-NH3	SM 4500-S2	SM 4500-S2	ASTM D2216		
CORROSION SERIES	Soil Resistivity	pH	Sulfate	Chloride	Redox Potential	BiCarbonate	Alkalinity	Acidity	Nitrate	Ammonia	Sulfide	Moisture Content	Soil Corrosivity Evaluation Report	Metallurgical Analysis	NOTES
1	B-2	CLAY (CH), dark gray	2-2.5 ft	06/12/18	✓																	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

KEY TO EXPLORATORY BORING LOGS

SOIL CLASSIFICATIONS

PRIMARY DIVISIONS			GROUP1 SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More than half of material is larger than No. 200 sieve size	GRAVELS More than half coarse fraction is larger than No.4 sieve	Clean Gravels (less than5% fines*)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravel with fines*	GM	Silty gravels, gravel-sand-silt mixtures, non-plastio fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastio fines
	SANDS More than half coarse fraction is smaller than No.4 sieve	Clean Sands (less than 5%fines*)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		Sands with fines*	SM	Silty sands, silt-sand mixtures, non-plastio fines
			SC	Clayey sand, sand-clay mixtures, plastio fines
FINE GRAINED SOILS More than half of material is smaller than No. 200 sieve size	SILTS AND CLAYS Liquid limit is less than 35		ML	Inorganic silts, clayey silts, rock flour, silty very fine sands
			CL	Inorganic clays of low plasticity, gravelly clay of low plasticity
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit is between35 and 50		MI	Inorganic silts, clayey silts and silty fine sand with intermediate plasticity
			CI	Inorganic clays, gravely clays, sandy clays and silty clays of intermediate plasticity
			OI	Inorganic clays and silty clays of intermediate plasticity
	SILTS AND CLAYS Liquid limit is greater than 50		MH	Inorganic silts, clayey silts, elastic silts, micaceous or diatomaceous silty or fine sandy soil
			CH	Inorganic clays of high plasticity
			OH	Organic clays and silts of high plasticity
HIGHLY ORGANIC SOILS			Pt	Peat, meadow mat, highly organic soils

GRAIN SIZES



DESIGN COPY

RELATIVE DENSITY

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT*
VERY LOOSE	0 – 4
LOOSE	4 – 10
MEDIUM DENSE	10 – 30
DENSE	30 – 50
VERY DENSE	OVER 50

CONSISTENCY

CLAYS AND PLASTIC SILTS	UNCONFINED SHEAR STRENGTH (PSF)	BLOWS/FOOT*
VERY SOFT	0 – 250	0 – 2
SOFT	250-500	2 – 4
FIRM	500-1000	4 – 8
STIFF	1000-2000	8 – 16
VERY STIFF	2 000– 4000	16 – 32
HARD	>4000	OVER 32

SYMBOLS

▽	Initial Ground Water Level
▼	Final Ground Water Level
*	Standard Penetration Sampler
X	Modified California Sampler
D	Dames & Moore Sampler

NOTES

*BLOWS per FOOT – Resistance to advance the soil sampler in number of blows of a 140-pound hammer falling 30 inches to drive a split spoon sampler.

Stratification lines on the logs represent the approximate boundary between soil types, and the transition may be gradual.

Modified California Sampler – 2 ½ O.D. (1 7/8 Inch I.D.) sampler

Standard Penetration Sampler – 2 inch O.D. (1 3/8 Inch I.D.) split spoon sampler (ASTM D1586).

Dames & Moore Sampler – 3 inch O.D. (2.5 inch I.D.) sampler

AMSO CONSULTING ENGINEERS

ROCKRIDGE GEOTECHNICAL

APPENDIX C

Logs of Test Borings, CPT Data, and Laboratory Test Results from AMSO Report

BORING LOG

No. B-3

PROJECT **Menlo Gateway Apartments** DATE 05/31/2013 LOGGED BY BAA

DRILL RIG Minute Man, Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 11 ft FINAL 10.5 ft HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; dark gray to black, damp, stiff	CH	1										
		2	x				65		26			
		3	x	21	2.5			28		89	10	4400
		4										
		5										
		6										
Silty Clay; brown, damp, stiff	CL/ CH	7	x	18	2			25		94	10	5710
		8	*	10	1							
Silty Clay; light to yellowish brown, damp to moist, medium stiff	CL	9										
		10										
		11				▽						
		12	x	8	1							
		13										
		14										
		15										
		16	x	11	1.1							
		17										
		18										
		19										
Bottom of hole at 20 feet		20	*	8	1.2							

DESIGN COPY

BORING LOG

No. B-4

PROJECT **Menlo Gateway Apartments** DATE 05/31/2013 LOGGED BY BAA

DRILL RIG Minute Man, Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 11 ft FINAL 10 ft HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; dark grayish brown, dry, medium stiff; with minor amount of crushed rocks	CH	1										
		2	x				62		28			
			x	21	2			30		86	10	4535
		3										
		4										
		5										
Silty Clay; brown, damp, stiff	CL/ CH	6										
		7	x	19	2			23		97	10	4880
Silty Clay; light brown, damp, stiff	CL	8										
		9										
		10				▼						
medium stiff		11				▽						
		12										
		13	x	10	2.1							
		14										
		15										
		16										
		17										
		18										
		19										
Bottom of hole at 20 feet		20	x	15	1.5							

DESIGN COPY

PLASTICITY INDEX

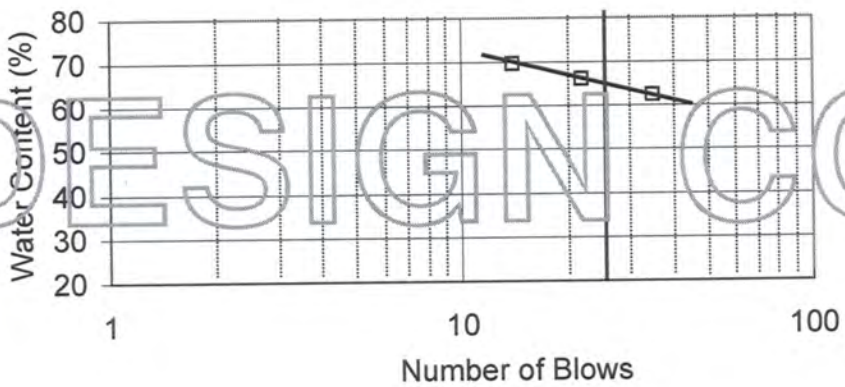
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	**Menlo Gateway**	Project No.:	3595
Sample No.:	B3 - 2 feet	Lab No.:	
Location		Test Date:	06/07/2013
Description:	Silty Clay	Tested By:	TOSCANO TESTING

TEST DATA

	Liquid Limit				Plastic limit			Water Content
Number of Blows	14	22	35					
Tare Number	10	20	32		5			
Tare + Wet Wt (gm)	41.40	46.70	45.80		47.73			
Tare + Dry Wt (gm)	30.70	34.06	34.30		41.10			
Tare Wt (gm)	15.34	14.95	15.87		15.50			
Wt of Water (gm)	10.70	12.64	11.50		6.63			
Soil Dry Wt (gm)	15.36	19.11	18.43		25.60			
Water Content (%)	69.66	66.14	62.40		25.90			
			Average		25.90			

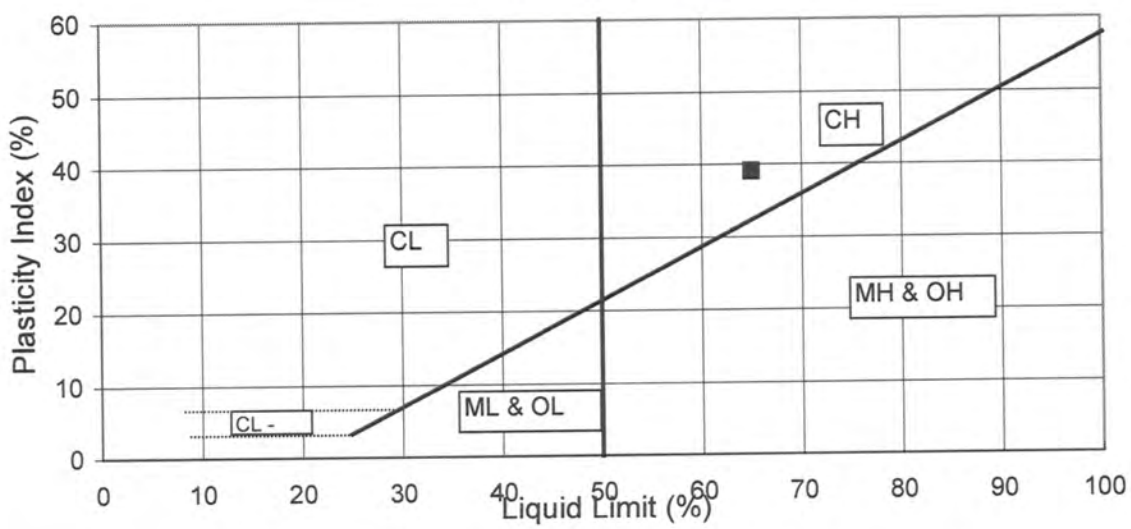
Liquid Limit Test



DESIGN COPY

LL	PL	PI
65	26	39

Plasticity Chart



PLASTICITY INDEX

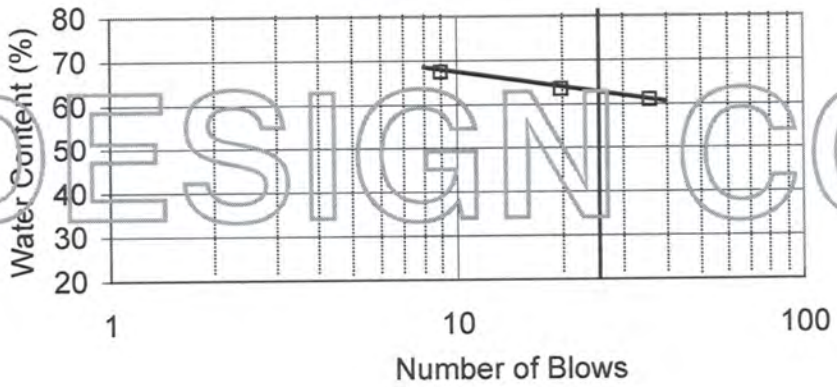
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	**Menlo Gateway**	Project No.:	3595
Sample No.:	B4 - 2 feet	Lab No.:	
Location		Test Date:	06/07/2013
Description:	Silty Clay	Tested By:	TOSCANO TESTING

TEST DATA

	Liquid Limit				Plastic limit			Water Content
Number of Blows	9	20	36					
Tare Number	X	Q	M		6			
Tare + Wet Wt (gm)	50.77	46.56	49.95		45.50			
Tare + Dry Wt (gm)	37.34	34.62	36.94		39.00			
Tare Wt (gm)	17.43	15.82	15.62		15.52			
Wt of Water (gm)	13.43	11.94	13.01		6.50			
Soil Dry Wt (gm)	19.91	18.80	21.32		23.48			
Water Content (%)	67.45	63.51	61.02		27.68			
			Average		27.68			

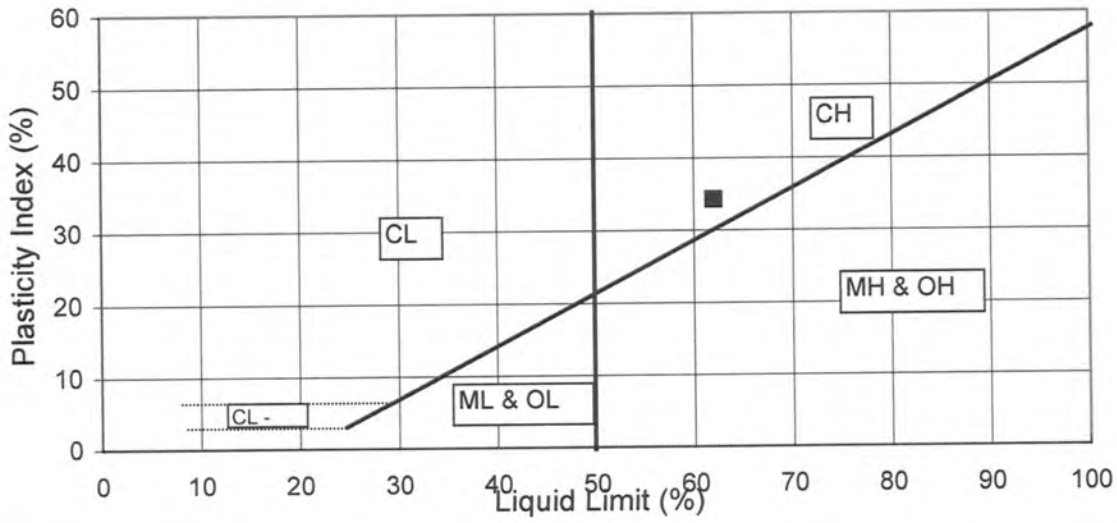
Liquid Limit Test



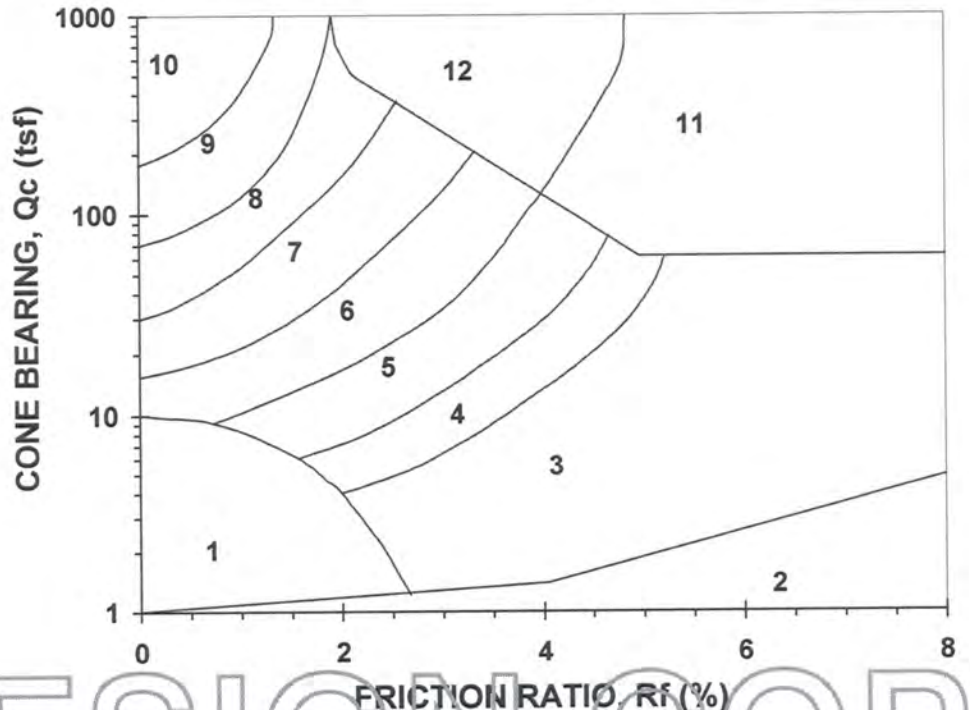
DESIGN COPY

LL	PL	PI
62	28	34

Plasticity Chart



SIMPLIFIED SOIL BEHAVIOR TYPE CLASSIFICATION FOR STANDARD ELECTRONIC CONE PENETROMETER



DESIGN COPY

ZONE	Qc/N[1]	Su Factor (Nk)[2]	SOIL BEHAVIOR TYPE[1]
1	2	for Zones 1 to 6 10 for Qc <= 9 tsf 12 for Qc = 9 to 12 tsf 15 for Qc > 12 tsf	Sensitive Fine Grained
2	1		Organic Material
3	1		CLAY
4	1.5		Silty CLAY to CLAY
5	2		Clayey SILT to Silty CLAY
6	2.5		Sandy SILT to Clayey SILT
7	3	---	Silty SAND to Sandy SILT
8	4	---	SAND to Silty SAND
9	5	---	SAND
10	6	---	Gravelly SAND to SAND
11	1	15	Very Stiff Fine Grained (*)
12	2	---	SAND to Clayey SAND (*)

(*) Overconsolidated or Cemented

Qc = Tip Bearing
Fs = Sleeve Friction
Rf = Fs/Qc*100 = Friction Ratio

References: [1]Robertson, 1986, Olsen, 1988
[2]Bonaparte & Mitchell, 1979 (young bay mud Qc <= 9)
[2]Estimated from local experience (fine grained soils Qc > 9)

Note: Testing performed in accordance with ASTM D3441

John Sarmiento & Associates
Cone Penetrometer Testing Services

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 20.0 feet

CPT NO.: CPT-4
DATE: 05-30-2013
TIME: 12:26:00
Groundwater measured at 9.8 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.55	33.0	52.80	1.10	3.3	17	26	0.06	----	4.40	Clayey SILT to Silty CLAY	130-140
1.05	13.4	21.44	0.98	7.3	13	21	0.13	----	1.78	CLAY	120-130
1.55	8.8	14.08	0.72	8.2	9	14	0.19	----	1.74	"	"
2.01	9.2	14.72	0.63	6.9	9	15	0.25	----	1.51	"	"
2.52	9.6	15.36	0.73	7.6	10	15	0.31	----	1.57	"	"
3.02	11.7	18.72	0.81	6.9	12	19	0.37	----	1.92	"	"
3.56	13.0	20.80	0.91	7.0	13	21	0.44	----	1.70	"	"
4.05	17.6	28.16	1.09	6.2	18	28	0.51	----	2.31	"	130-140
4.55	19.0	30.40	1.18	6.2	19	30	0.57	----	2.50	"	"
5.03	14.8	23.68	0.98	6.6	15	24	0.63	----	1.93	"	120-130
5.50	20.0	32.00	1.26	6.3	20	32	0.70	----	2.62	"	130-140
6.02	47.7	76.32	2.64	5.5	48	76	0.77	----	6.31	"	"
6.54	83.8	130.67	4.90	5.9	84	131	0.84	----	11.12	Very Stiff Fine Grained *	>140
7.02	116.9	174.69	4.69	4.0	117	175	0.91	----	15.53	"	130-140
7.51	95.3	136.19	4.58	4.8	95	136	0.97	----	12.64	"	"
8.03	63.9	88.06	2.63	4.1	32	44	1.04	----	8.45	Clayey SILT to Silty CLAY	"
8.50	70.3	94.57	1.70	2.4	28	38	1.11	----	9.30	Sandy SILT to Clayey SILT	"
9.05	78.6	102.69	1.52	1.9	26	34	1.18	>38	----	Silty SAND to Sandy SILT	"
9.57	153.3	194.74	2.39	1.6	38	49	1.25	>42	----	SAND to Silty SAND	"
10.08	151.0	189.13	2.44	1.6	38	47	1.29	>42	----	"	"
10.50	209.4	259.61	1.79	0.9	42	52	1.31	>44	----	SAND	120-130
11.01	125.7	153.62	2.08	1.7	31	38	1.35	>40	----	SAND to Silty SAND	130-140
11.54	63.1	76.43	0.31	0.5	16	19	1.37	>35	----	"	100-110
12.04	140.7	168.33	1.66	1.2	35	42	1.40	>41	----	"	120-130
12.53	159.7	188.70	1.42	0.9	32	38	1.43	>42	----	SAND	"
13.06	153.1	178.47	1.59	1.0	31	36	1.47	>41	----	"	"
13.52	36.2	41.62	1.15	3.2	18	21	1.50	----	4.71	Clayey SILT to Silty CLAY	130-140
14.07	4.1	4.69	0.22	5.4	4	5	1.52	----	0.64	CLAY	90-100
14.50	3.3	3.76	0.25	7.6	3	4	1.53	----	0.48	Organic Material	"
15.05	8.5	9.59	0.55	6.5	9	10	1.56	----	1.51	CLAY	110-120
15.59	20.6	22.94	1.06	5.2	21	23	1.60	----	2.61	"	130-140
16.04	9.1	10.04	0.66	7.3	9	10	1.63	----	1.35	"	120-130
16.52	5.4	5.92	0.21	3.9	5	6	1.65	----	0.87	"	100-110
17.04	7.9	8.60	0.23	2.9	5	6	1.67	----	1.37	Silty CLAY to CLAY	"
17.57	10.5	11.32	0.38	3.6	11	11	1.70	----	1.57	CLAY	110-120
18.02	9.9	10.59	0.49	5.0	10	11	1.72	----	1.46	"	"
18.56	9.3	9.85	0.31	3.3	6	7	1.75	----	1.36	Silty CLAY to CLAY	"
19.01	7.5	7.91	0.22	2.9	5	5	1.77	----	1.26	"	100-110
19.55	11.1	11.64	0.36	3.2	7	8	1.80	----	1.65	"	110-120
20.06	19.1	19.85	1.04	5.5	19	20	1.84	----	2.38	CLAY	130-140

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DEPTH = Sampling interval (~0.1 feet)
Qc = Tip bearing uncorrected Qt = Tip bearing corrected Fs = Sleeve friction resistance Rf = Qt / Fs
SPT = Equivalent Standard Penetration Test Qt' and SPT' = Qt and SPT corrected for overburden
EffVtStr = Effective Vertical Stress using est. density** Phi = Soil friction angle*
Su = Undrained Soil Strength* (see classification chart)
References: * Robertson and Campanella, 1988 **Olsen, 1989 *** Durgunoglu & Mitchell, 1975

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 30.0 feet

CPT NO.: CPT-5
DATE: 05-30-2013
TIME: 13:04:00
Groundwater measured at 9.7 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.51	0.9	1.44	1.23	20.0	1	1	0.06	----	0.17	Organic Material	100-110
1.07	165.3	264.48	3.41	2.1	55	88	0.13	>44	----	Silty SAND to Sandy SILT	130-140
1.53	41.4	66.24	1.35	3.3	21	33	0.20	----	5.51	Clayey SILT to Silty CLAY	"
2.01	10.6	16.96	0.89	8.4	11	17	0.26	----	1.75	CLAY	120-130
2.54	10.9	17.44	0.74	6.8	11	17	0.32	----	1.79	"	"
3.00	9.8	15.68	0.76	7.8	10	16	0.38	----	1.60	"	"
3.53	9.8	15.68	0.79	8.1	10	16	0.45	----	1.60	"	"
4.04	8.8	14.08	0.73	8.3	9	14	0.51	----	1.71	"	"
4.56	9.8	15.68	0.77	7.9	10	16	0.58	----	1.59	"	"
5.09	9.2	14.72	0.63	6.9	9	15	0.64	----	1.48	"	"
5.53	9.8	15.68	0.71	7.2	10	16	0.70	----	1.58	"	"
6.08	16.9	27.04	0.88	5.2	17	27	0.76	----	2.20	"	"
6.53	16.1	25.41	0.79	4.9	16	25	0.82	----	2.09	"	"
7.06	13.2	19.96	0.90	6.8	13	20	0.89	----	1.70	"	"
7.52	21.2	30.74	0.97	4.6	21	31	0.95	----	2.76	"	130-140
8.06	14.9	20.68	1.25	8.4	15	21	1.02	----	1.92	"	"
8.53	22.2	30.08	0.81	3.7	15	20	1.09	----	2.89	Silty CLAY to CLAY	"
9.04	4.8	6.35	0.29	6.0	5	6	1.15	----	0.85	CLAY	100-110
9.57	3.3	4.30	0.26	7.9	3	4	1.18	----	0.54	Organic Material	90-100
10.06	1.6	2.07	0.20	12.5	2	2	1.20	----	0.20	"	"
10.52	2.5	3.22	0.32	12.8	3	3	1.22	----	0.37	"	"
11.05	1.1	1.41	0.21	19.1	1	1	1.23	----	0.09	"	"
11.51	3.4	4.31	0.41	12.1	3	4	1.25	----	0.54	"	100-110
12.04	5.2	6.53	0.72	13.9	5	7	1.28	----	0.90	"	110-120
12.56	8.3	10.29	0.62	7.5	8	10	1.31	----	1.51	CLAY	120-130
13.04	8.3	10.17	0.81	9.8	8	10	1.34	----	1.50	Organic Material	"
13.55	15.6	18.88	0.74	4.7	16	19	1.37	----	1.97	CLAY	"
14.08	11.0	13.14	0.60	5.5	11	13	1.41	----	1.69	"	"
14.51	12.1	14.29	0.58	4.8	12	14	1.43	----	1.50	"	"
15.01	11.9	13.88	0.59	5.0	12	14	1.47	----	1.83	"	"
15.56	15.0	17.25	1.05	7.0	15	17	1.50	----	1.88	"	"
16.01	15.3	17.41	1.29	8.4	15	17	1.53	----	1.91	"	130-140
16.50	12.6	14.20	0.75	6.0	13	14	1.56	----	1.55	"	120-130
17.02	12.6	14.05	0.71	5.6	13	14	1.60	----	1.54	"	"
17.54	9.2	10.17	0.49	5.3	9	10	1.62	----	1.36	"	110-120
18.06	11.2	12.27	0.43	3.8	11	12	1.65	----	1.68	"	"
18.54	12.1	13.13	0.42	3.5	8	9	1.68	----	1.46	Silty CLAY to CLAY	120-130
19.03	16.6	17.82	0.63	3.8	11	12	1.71	----	2.06	"	"
19.57	19.6	20.81	0.81	4.1	13	14	1.75	----	2.46	"	"
20.02	18.5	19.51	0.72	3.9	12	13	1.77	----	2.30	"	"
20.52	13.1	13.71	0.44	3.4	9	9	1.81	----	1.58	"	"
21.03	18.7	19.43	0.56	3.0	9	10	1.84	----	2.32	Clayey SILT to Silty CLAY	"
21.53	25.0	25.76	1.03	4.1	17	17	1.87	----	3.16	Silty CLAY to CLAY	130-140
22.07	26.8	27.36	1.19	4.4	18	18	1.91	----	3.39	"	"
22.52	24.6	24.92	1.02	4.2	16	17	1.95	----	3.10	"	"
23.04	20.3	20.38	0.99	4.9	20	20	1.98	----	2.52	CLAY	"
23.50	18.4	18.40	0.85	4.6	18	18	2.01	----	2.26	"	120-130
24.08	11.7	11.69	0.41	3.5	8	8	2.04	----	1.70	Silty CLAY to CLAY	110-120
24.52	9.6	9.59	0.30	3.1	6	6	2.07	----	1.35	"	"
25.01	9.3	9.28	0.30	3.2	6	6	2.09	----	1.30	"	"
25.53	9.3	9.28	0.32	3.4	9	9	2.12	----	1.29	CLAY	"
26.00	13.4	13.36	0.34	2.5	7	7	2.14	----	1.58	Clayey SILT to Silty CLAY	"
26.57	14.8	14.75	0.39	2.6	7	7	2.18	----	1.76	"	120-130
27.01	14.8	14.74	0.40	2.7	7	7	2.21	----	1.75	"	"

DESIGN COPY

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 30.0 feet

CPT NO.: CPT-5
DATE: 05-30-2013
TIME: 13:04:00
Groundwater measured at 9.7 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
27.54	58.5	58.21	3.18	5.4	58	58	2.24	----	7.58	Very Stiff Fine Grained *	130-140
28.02	127.8	127.09	1.68	1.3	32	32	2.28	>39	----	SAND to Silty SAND	"
28.58	16.8	16.69	0.66	3.9	11	11	2.31	----	2.01	Silty CLAY to CLAY	120-130
29.02	16.0	15.89	0.57	3.6	11	11	2.34	----	1.90	"	"
29.50	17.4	17.27	0.77	4.4	17	17	2.37	----	2.08	CLAY	"
30.04	10.2	10.12	0.68	6.7	10	10	2.41	----	1.39	"	"

DEPTH = Sampling interval (~0.1 feet)
Qc = Tip bearing uncorrected Qt = Tip bearing corrected Fs = Sleeve friction resistance Rf = Qt / Fs
SPT = Equivalent Standard Penetration Test Qt' and SPT' = Qt and SPT corrected for overburden
EffVtStr = Effective Vertical Stress using est. density** Phi = Soil friction angle*
Su = Undrained Soil Strength* (see classification chart)
References: * Robertson and Campanella, 1988 **Olsen, 1989 *** Durgunoglu & Mitchell, 1975

DESIGN COPY

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 50.0 feet

CPT NO.: CPT-6
DATE: 05-30-2013
TIME: 14:00:00
Groundwater measured at 10.5 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.54	3.5	5.60	2.57	20.0	4	6	0.06	----	0.69	Organic Material	120-130
1.03	83.5	133.60	1.45	1.7	28	45	0.13	>40	----	Silty SAND to Sandy SILT	130-140
1.51	15.9	25.44	1.05	6.6	16	25	0.19	----	2.11	CLAY	"
2.02	5.8	9.28	0.69	11.9	6	9	0.25	----	1.13	Organic Material	110-120
2.52	10.9	17.44	0.87	8.0	11	17	0.31	----	1.79	CLAY	120-130
3.07	8.6	13.76	0.75	8.7	9	14	0.38	----	1.68	"	"
3.51	9.8	15.68	0.76	7.8	10	16	0.44	----	1.60	"	"
4.03	9.8	15.68	0.83	8.5	10	16	0.50	----	1.59	"	"
4.54	10.9	17.44	0.67	6.2	11	17	0.57	----	1.77	"	"
5.01	11.2	17.92	0.69	6.2	11	18	0.63	----	1.81	"	"
5.50	16.1	25.76	0.98	6.1	16	26	0.69	----	2.10	"	"
6.06	21.8	34.88	1.00	4.6	22	35	0.76	----	2.86	"	130-140
6.52	23.9	37.65	1.26	5.3	24	38	0.82	----	3.13	"	"
7.02	25.0	37.68	1.30	5.2	25	38	0.89	----	3.27	"	"
7.56	23.6	33.85	1.34	5.7	24	34	0.97	----	3.08	"	"
8.08	20.1	27.77	1.01	5.0	20	28	1.03	----	2.61	"	"
8.50	11.1	15.03	0.88	7.9	11	15	1.09	----	1.76	"	120-130
9.07	15.0	19.72	1.22	8.1	15	20	1.16	----	1.92	"	130-140
9.53	8.1	10.43	0.47	5.8	8	10	1.22	----	1.50	"	110-120
10.07	8.1	10.17	0.56	6.9	8	10	1.28	----	1.49	"	"
10.55	4.8	5.98	0.35	7.3	5	6	1.30	----	0.83	"	100-110
11.07	3.4	4.20	0.37	10.9	3	4	1.32	----	0.54	Organic Material	"
11.57	5.4	6.60	0.66	12.2	5	7	1.35	----	0.94	"	110-120
12.01	1.5	1.82	0.24	16.0	2	2	1.36	----	0.15	"	90-100
12.52	2.5	3.02	0.31	12.4	2	3	1.38	----	0.35	"	"
13.05	9.5	11.52	0.76	8.0	10	11	1.41	----	1.45	CLAY	120-130
13.52	5.5	6.49	0.45	8.2	6	6	1.44	----	0.93	"	110-120
14.02	4.5	5.27	0.37	8.2	4	5	1.46	----	0.73	Organic Material	100-110
14.50	4.6	5.34	0.40	8.7	5	5	1.48	----	0.74	"	"
15.01	4.3	4.94	0.46	10.7	4	5	1.50	----	0.68	"	"
15.54	4.9	5.59	0.38	7.8	5	6	1.52	----	0.79	CLAY	"
16.04	5.5	6.23	0.54	9.8	6	6	1.55	----	0.91	Organic Material	110-120
16.56	7.7	8.64	0.47	6.1	8	9	1.58	----	1.34	CLAY	"
17.04	12.0	13.36	0.34	2.8	8	9	1.60	----	1.46	Silty CLAY to CLAY	"
17.55	17.8	19.61	0.72	4.0	12	13	1.63	----	2.23	"	120-130
18.01	19.0	20.74	0.79	4.2	13	14	1.66	----	2.39	"	"
18.53	20.7	22.35	0.82	4.0	14	15	1.70	----	2.61	"	"
19.00	20.7	22.13	0.82	4.0	14	15	1.73	----	2.61	"	"
19.55	24.1	25.46	0.91	3.8	16	17	1.76	----	3.06	"	130-140
20.08	29.3	30.68	1.13	3.9	15	15	1.80	----	3.74	Clayey SILT to Silty CLAY	"
20.52	28.4	29.52	1.39	4.9	28	29	1.84	----	3.62	CLAY	"
21.04	25.9	26.69	1.28	4.9	26	27	1.87	----	3.28	"	"
21.54	22.4	22.89	0.95	4.2	15	15	1.91	----	2.81	Silty CLAY to CLAY	"
22.00	21.5	21.80	0.86	4.0	14	14	1.94	----	2.69	"	"
22.52	15.7	15.79	0.54	3.4	10	10	1.98	----	1.91	"	120-130
23.01	10.4	10.40	0.39	3.8	10	10	2.00	----	1.50	CLAY	110-120
23.53	10.1	10.09	0.32	3.2	7	7	2.03	----	1.44	Silty CLAY to CLAY	"
24.04	7.9	7.89	0.30	3.8	8	8	2.06	----	1.29	CLAY	"
24.57	9.9	9.88	0.67	6.8	10	10	2.09	----	1.40	"	120-130
25.07	7.6	7.58	0.28	3.7	8	7	2.11	----	1.22	"	100-110
25.51	5.4	5.39	0.21	3.9	5	5	2.13	----	0.77	"	"
26.04	5.2	5.18	0.25	4.8	5	5	2.15	----	0.73	"	"
26.56	7.4	7.37	0.16	2.2	5	5	2.17	----	1.16	Silty CLAY to CLAY	"
27.01	6.2	6.18	0.13	2.1	4	4	2.19	----	0.92	"	90-100

DESIGN COPY

PROJECT: MENLO COMMONS - WILLOW ROAD
LOCATION: Menlo Park CA
PROJ. NO.: 3593(ACE-25)
Terminated at 50.0 feet

CPT NO.: CPT-6
DATE: 05-30-2013
TIME: 14:00:00
Groundwater measured at 10.5 feet

AMSO CONSULTING ENGINEER
cpts by John Sarmiento & Associates

DEPTH (feet)	Qt (tsf)	Qt' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
27.57	8.5	8.46	0.20	2.4	6	6	2.21	----	1.37	Silty CLAY to CLAY	100-110
28.02	10.6	10.55	0.29	2.7	7	7	2.24	----	1.49	"	110-120
28.54	9.6	9.55	0.27	2.8	6	6	2.26	----	1.32	"	100-110
29.02	11.0	10.94	0.35	3.2	7	7	2.28	----	1.54	"	110-120
29.50	46.5	46.20	2.44	5.3	46	46	2.32	----	5.96	CLAY	130-140
30.04	88.3	87.67	3.89	4.4	88	88	2.36	----	11.53	Very Stiff Fine Grained *	"
30.58	173.0	171.65	1.46	0.8	35	34	2.39	>41	----	SAND	120-130
31.00	198.4	196.73	2.63	1.3	40	39	2.42	>42	----	"	130-140
31.56	231.1	228.99	2.42	1.1	46	46	2.46	>43	----	"	120-130
32.03	259.9	257.38	2.14	0.8	52	51	2.49	>43	----	"	"
32.56	249.0	244.55	3.17	1.3	50	49	2.52	>43	----	"	130-140
33.02	327.1	317.65	4.79	1.5	65	64	2.56	>45	----	"	"
33.53	332.4	318.68	3.87	1.2	66	64	2.59	>45	----	"	"
34.05	173.5	164.19	2.73	1.6	43	41	2.63	>41	----	SAND to Silty SAND	"
34.51	23.4	21.89	1.43	6.1	23	22	2.67	----	2.84	CLAY	"
35.02	5.7	5.29	0.34	6.0	6	5	2.69	----	0.72	"	100-110
35.57	4.7	4.33	0.20	4.3	5	4	2.71	----	0.51	"	90-100
36.06	3.8	3.48	0.21	5.5	4	3	2.72	----	0.33	"	"
36.56	8.0	7.27	0.35	4.4	8	7	2.75	----	1.16	"	110-120
37.08	14.5	13.02	0.46	3.2	10	9	2.78	----	1.64	Silty CLAY to CLAY	120-130
37.51	14.9	13.24	0.51	3.4	10	9	2.81	----	1.69	"	"
38.07	14.2	12.45	0.50	3.5	9	8	2.84	----	1.59	"	"
38.54	9.4	8.17	0.34	3.6	9	8	2.87	----	1.18	CLAY	110-120
39.03	8.4	7.23	0.36	4.3	8	7	2.89	----	1.21	"	"
39.57	12.0	10.19	0.47	3.9	12	10	2.93	----	1.28	"	120-130
40.04	21.0	17.63	0.71	3.4	11	9	2.96	----	2.48	Clayey SILT to Silty CLAY	"
40.53	12.4	10.29	0.61	4.9	12	10	2.99	----	1.33	CLAY	"
41.03	14.0	11.52	0.52	3.7	9	8	3.02	----	1.54	Silty CLAY to CLAY	"
41.56	10.3	8.44	0.44	4.3	10	8	3.05	----	1.30	CLAY	110-120
42.06	10.7	8.74	0.43	4.0	11	9	3.07	----	1.36	"	"
42.57	10.2	8.30	0.40	3.9	10	8	3.10	----	1.27	"	"
43.04	10.5	8.51	0.36	3.4	7	6	3.12	----	1.32	Silty CLAY to CLAY	"
43.51	11.6	9.37	0.42	3.6	8	6	3.15	----	1.50	"	"
44.03	10.7	8.61	0.45	4.2	11	9	3.18	----	1.34	CLAY	"
44.56	15.8	12.66	0.61	3.9	10	8	3.21	----	1.75	Silty CLAY to CLAY	120-130
45.07	19.8	15.79	0.62	3.1	10	8	3.24	----	2.28	Clayey SILT to Silty CLAY	"
45.55	15.0	11.91	0.55	3.7	10	8	3.27	----	1.63	Silty CLAY to CLAY	"
46.00	10.6	8.39	0.39	3.7	10	8	3.29	----	1.31	CLAY	110-120
46.57	11.4	8.98	0.44	3.9	11	9	3.32	----	1.43	"	"
47.01	11.6	9.10	0.49	4.2	11	9	3.35	----	1.46	"	120-130
47.10	12.0	9.41	0.47	3.9	12	9	3.36	----	1.22	"	"
47.53	11.3	8.82	0.55	4.9	11	9	3.38	----	1.41	"	"
48.08	11.9	9.24	0.47	4.0	12	9	3.42	----	1.50	"	"
48.56	10.5	8.13	0.49	4.7	10	8	3.44	----	1.26	"	110-120
49.08	12.4	9.55	0.45	3.6	8	6	3.48	----	1.26	Silty CLAY to CLAY	120-130
49.54	10.4	7.98	0.39	3.8	10	8	3.50	----	1.24	CLAY	110-120
50.08	10.3	7.89	0.00	0.0	5	4	3.51	----	1.22	Sensitive Fine Grained	<80

DESIGN COPY

DEPTH = Sampling interval (~0.1 feet)
Qc = Tip bearing uncorrected Qt = Tip bearing corrected Fs = Sleeve friction resistance Rf = Qt / Fs
SPT = Equivalent Standard Penetration Test Qt' and SPT' = Qt and SPT corrected for overburden
EffVtStr = Effective Vertical Stress using est. density** Phi = Soil friction angle*
Su = Undrained Soil Strength* (see classification chart)
References: * Robertson and Campanella, 1988 **Olsen, 1989 *** Durgunoglu & Mitchell, 1975

Email #1

From: ccrake@AEMConsulting.net
Sent: Friday, September 4, 2020 12:18 PM
To: Mirna Ramirez
Cc: Kevin Brown
Subject: RE: [External] - RE: Gateway Family #19006 - ERR

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mirna,

CalHFA adopts the existing NEPA Environmental Assessment via Board Resolution. Once adopted, you can make a Finding – which is publication of a Finding of No Significant Impact followed by a 15-day public comment period. After which comments are addressed, in writing. Subsequently, CalHFA may submit a Request for Release of Funds to HUD, who has another 15 statutory comment period prior to releasing the Authority to Use Grant Funds. Call if you want to chat about it. Do you want me to prepare an estimate for this work? Let me know. Thanks -

Regards,

Cinnamon Crake
President
AEM Consulting
422 Larkfield Center #104
Santa Rosa, CA 95403
Phone & FAX (707) 523-3710
www.aemconsulting.net

From: Mirna Ramirez <mramirez@CalHFA.ca.gov>
Sent: Friday, September 4, 2020 11:46 AM
To: ccrake@AEMConsulting.net
Cc: Kevin Brown <KBrown@CalHFA.ca.gov>
Subject: RE: [External] - RE: Gateway Family #19006 - ERR

If you can please guide me through the process that would be great. Serena Ip, sip@midpen-housing.org, is our contact person at MidPen Housing. They shared an unsigned copy of the report.

Mirna R.
310-342-5419

From: ccrake@AEMConsulting.net <ccrake@AEMConsulting.net>
Sent: Friday, September 4, 2020 11:28 AM
To: Mirna Ramirez <mramirez@CalHFA.ca.gov>
Cc: Kevin Brown <KBrown@CalHFA.ca.gov>
Subject: [External] - RE: Gateway Family #19006 - ERR

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Mirna,

Yes, in fact Kevin is familiar with that process. Do you want me to send you the source document? Who is your contact at MidPen? Since they paid for the report, I'll get their permission before sharing. Thx

Regards,

Cinnamon Crake
President
AEM Consulting
422 Larkfield Center #104
Santa Rosa, CA 95403
Phone & FAX (707) 523-3710
www.aemconsulting.net

From: Mirna Ramirez <mramirez@CalHFA.ca.gov>
Sent: Friday, September 4, 2020 11:17 AM
To: ccrake@AEMConsulting.net
Cc: Kevin Brown <KBrown@CalHFA.ca.gov>
Subject: Gateway Family #19006 - ERR

Good morning,

CalHFA is working on a project in San Mateo County, Gateway Family Apartments. AEM Consulting prepared a NEPA report for the County last year, and we were wondering if CalHFA can adopt the report. Can you please provide some guidance, thank you in advance for your help.

Project Name:
Gateway Family Housing
1345 Willow Road
Menlo Park, CA 94025

Mirna Ramirez
Loan Administrator
310-342-5419

Multifamily Programs
California Housing Finance Agency
100 Corporate Pointe, Suite 250
Culver City, CA 90230
Main# 310-342-5400

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Email #2

From: ccrake@AEMConsulting.net
Sent: Tuesday, September 8, 2020 9:21 AM
To: Kevin Brown; Mirna Ramirez
Subject: RE: [External] - RE: Gateway Family #19006 - ERR
Attachments: Estimate.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kevin,

Please see revised Estimate attached, this amount is a 'not to exceed' amount. I've got to pack – I have a plane to catch today. Please let me know if you need anything else from me this week, I'll be leaving in a few hours. Best,

Regards,

Cinnamon Crake
President
AEM Consulting
422 Larkfield Center #104
Santa Rosa, CA 95403
Phone & FAX (707) 523-3710
www.aemconsulting.net

**** Please note that I'll be conducting site visits the week of September 7, 2020. I'll return your email or phone call as time permits during travel. Thank you for your patience !*

Email #3

From: Mirna Ramirez
Sent: Tuesday, September 29, 2020 4:16 PM
To: ysham@smchousing.org
Cc: Ruth Vakili; Kevin Brown; Lorrie Blevins; Serena Ip
Subject: Gateway Family #19006 - 1345 Willow Road

Good afternoon,

Gateway Family Apartments/ 1345 Willow Road
MidPen Housing has applied for financing through CalHFA's HUD Risk-Sharing program. NEPA compliance is required for all HUD/RS insured projects.

This email is to notify you that CalHFA is planning on adopting the County's environmental review report which was approved by HUD in relation to the County's project based vouchers.

Please let us know if you have any questions. Thank you,

Mirna Ramirez
Loan Administrator
310-342-5419

Multifamily Programs
California Housing Finance Agency
100 Corporate Pointe, Suite 250
Culver City, CA 90230
Main# 310-342-5400

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