APPENDIX A:
AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

1. Air Quality

Ambient air quality standards (AAQS) have been adopted at State and federal levels for criteria air pollutants. In addition, both the State and federal government regulate the release of toxic air contaminants (TACs). The City of San Francisco is in the San Francisco Bay Area Air Basin (SFBAAB) and is subject to the rules and regulations imposed by the Bay Area Air Quality Management District (BAAQMD), as well as the California AAQS adopted by the California Air Resources Board (CARB) and national AAQS adopted by the United States Environmental Protection Agency (EPA). Federal, State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below. The discussion also identifies the natural factors in the air basin that affect air pollution.

1.1 REGULATORY FRAMEWORK

1.1.1 Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

Criteria air pollutants are the air pollutants for which AAQS have been developed that are regulated under the CAA. The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 1. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[a]	Federal Primary Standard[b]	Major Pollutant Sources
Ozone (O_3)[c]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[d]	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[e]	24 hours	25 µg/m^3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[a]	Federal Primary Standard[b]	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: California Air Resources Board, 2016, May 4. Ambient Air Quality Standards. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

a California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

c On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

d On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

e On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

1.1.2 Air Pollutants of Concern

A substance in the air that can cause harm to humans and the environment is known as an air pollutant. Pollutants can be in the form of solid particles, liquid droplets, or gases. In addition, they may be natural or man-made.

1.1.2.1 CRITERIA AIR POLLUTANTS

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law. Air pollutants are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, nitrogen dioxide (NO_2), PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that AAQS have been established for them. ROG and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little or no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the air basin. Emissions are highest during cold starts, hard acceleration, stop-and-go driving, and when a vehicle is moving at low speeds. New findings indicate that CO emissions per mile are lowest at about 45 miles per hour (mph) for the average light-duty motor vehicle and begin to increase again at higher speeds. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity.[1] This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.[2] The air basin is designated under the California and National AAQS as being in attainment of CO criteria levels.[3]

- **Reactive Organic Gases (ROGs)** are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants, such as O_3. There are no AAQS established for ROGs. However, because they contribute to the formation of O_3, BAAQMD has established a significance threshold for this pollutant.[4]

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[1] US Environmental Protection Agency. 2018, March 8. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

[2] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[3] California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[4] Bay Area Air Quality Management District (BAAQMD). 2017, May. CEQA Air Quality Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

- **Nitrogen Oxides (NO_x)** are a by-product of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major components of NO_x are nitric oxide (NO) and NO_2. The principal component of NO_x produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 is an acute irritant and at equal concentrations more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure.[5,6] The air basin is designated an attainment area for NO_2 under the National AAQS and California AAQS.[7]

- **Sulfur Dioxide (SO_2)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2.[8] When SO_2 forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.[9] The air basin is designated an attainment area for SO_2 under the California and National AAQS.[10]

- **Suspended Particulate Matter (PM_{10} and $PM_{2.5}$)** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004-inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch).

  Some particulate matter, such as pollen, occurs naturally. Most particulate matter in the air basin is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. An EPA scientific review concluded that $PM_{2.5}$ penetrates even more deeply into

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[5] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[6] US Environmental Protection Agency. 2018, March 8. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

[7] California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[8] US Environmental Protection Agency. 2018, March 8. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

[9] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[10] California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

the lungs, and this is more likely to contribute to health effects—at concentrations well below current PM_{10} standards. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, increased respiratory symptoms (e.g. irritation of the airways, coughing, or difficulty breathing). Motor vehicles are currently responsible for about half of particulates in the air basin. Wood burning in fireplaces and stoves is another large source of fine particulates.[11]

Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individual with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.[12] Diesel particulate matter (DPM) is classified a carcinogen by CARB. The air basin is designated nonattainment under the California AAQS for PM_{10} and nonattainment under both the California and National AAQS for $PM_{2.5}$.[13,14]

- **Ozone (O_3)** is commonly referred to as "smog" and is a gas that is formed when ROGs and NO_x,—both by-products of internal combustion engine exhaust—undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions to the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. O_3 levels usually build up during the day and peak in the afternoon. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O_3 can also damage plants and trees and materials such as rubber and fabrics.[15] The air basin is designated nonattainment of the 1-hour California AAQS and 8-hour California and National AAQS for O_3.[16]

- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions.

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[11] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[12] South Coast Air Quality Management District. 2005. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.

[13] California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[14] On January 9, 2013, the EPA issued a final rule to determine that the SFBAAB has attained the 24-hour PM2.5 National AAQS. This action suspends federal State Implementation Plan planning requirements for the Bay Area. The SFBAAB will continue to be designated nonattainment for the National 24-hour PM2.5 standard until such time as BAAQMD elects to submit a redesignation request and a maintenance plan to EPA and EPA approves the proposed redesignation.

[15] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[16] California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm

The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.[17] The air basin is designated in attainment of the California and National AAQS for lead.[18] Because emissions of lead are found only in projects that are permitted by BAAQMD, lead is not an air quality of concern for the proposed project.

1.1.2.2 TOXIC AIR CONTAMINANTS

Public exposure to toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 U.S. Code Section 7412[b]) is a toxic air contaminant. Under State law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e. a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that it identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

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[17] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[18] California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

At the time of the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs.[19] Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities.[20] This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

1.1.3 Bay Area Air Quality Management District

BAAQMD is the agency responsible for assuring that the National and California AAQS are attained and maintained in the SFBAAB. BAAQMD is responsible for:

- Adopting and enforcing rules and regulations concerning air pollutant sources.
- Issuing permits for stationary sources of air pollutants.

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[19] California Air Resources Board (CARB). 2011, April 8 (reviewed). Final Staff Report: Update to the Toxic Air Contaminant List. https://ww3.arb.ca.gov/toxics/id/finalstaffreport.htm.

[20] California Air Resources Board. 2005, April. Air Quality Handbook: A Community Health Perspective. https://ww3.arb.ca.gov/ch/handbook.pdf.

- Inspecting stationary sources of air pollutants.
- Responding to citizen complaints.
- Monitoring ambient air quality and meteorological conditions.
- Awarding grants to reduce motor vehicle emissions.
- Conducting public education campaigns.
- Air quality management planning.

Air quality conditions in the air basin have improved significantly since the BAAQMD was created in 1955.[21] The BAAQMD prepares air quality management plans (AQMPs) to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans (OAPs) for the National O_3 standard and clean air plans for the California O_3 standard. The BAAQMD prepares these AQMPs in coordination with the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). The most recent adopted comprehensive plan is the 2017 Clean Air Plan, which was adopted on April 19, 2017, and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools.

1.1.3.1 BAAQMD BAY AREA CLEAN AIR PLAN

2017 Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area

BAAQMD adopted the 2017 Clean Air Plan, Spare the Air, Cool the Climate (2017 Clean Air Plan) on April 19, 2017. The 2017 Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues in providing the framework for SFBAAB to achieve attainment of the California and National AAQS. Similar to the Bay Area 2010 Clean Air Plan, the 2017 Clean Air Plan updates the Bay Area's ozone plan, which is based on the "all feasible measures" approach to meet the requirements of the California CAA. Additionally, it sets a goal of reducing health risk impacts to local communities by 20 percent by 2020. Furthermore, the 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the state's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following [22]:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.

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[21] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[22] Bay Area Air Quality Management District. 2017, April 19. Final 2017 Clean Air Plan, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. http://www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development.

- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy has been developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: 1) stationary (industrial) sources; 2) transportation; 3) energy; 4) agriculture; 5) natural and working lands; 6) waste management; 7) water; and 8) super-GHG pollutants. Overall, the proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
- Make the electricity supply carbon-free.
- Electrify the transportation and building sectors.

1.1.3.2 BAAQMD'S COMMUNITY AIR RISK EVALUATION PROGRAM (CARE)

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area. Based on findings of the latest report, DPM was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed 4 percent of the cancer risk-weighted emissions, and benzene contributed 3 percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk–weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for CARB's diesel regulations. Overall, cancer risk from TACs dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for State diesel regulations and other reductions.[23]

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. The highest modeled risks were found east of San Francisco, near West Oakland, and the Maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

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[23] Bay Area Air Quality Management District. 2014, April. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective and Path Forward (2004–2013). http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx

1. Western Contra Costa County and the cities of Richmond and San Pablo
2. Western Alameda County along the Interstate 880 (I-880) corridor and the cities of Berkeley, Alameda, Oakland, and Hayward
3. San Jose
4. Eastern side of San Francisco
5. Concord
6. Vallejo
7. Pittsburgh and Antioch

The project site is not within a CARE-program impacted community.

The major contributor to acute and chronic non-cancer health effects in the air basin is acrolein (C_3H_4O). Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports.[24] Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the BAAQMD does not conduct health risk screening analysis for acrolein emissions.[25]

1.1.3.3 REGULATION 7, ODOROUS SUBSTANCES

Sources of objectionable odors may occur within the City. BAAQMD's Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

1.1.3.4 OTHER BAAQMD REGULATIONS

In addition to the plans and programs described above, BAAQMD administers a number of specific regulations on various sources of pollutant emissions that would apply to individual development projects allowed under the proposed General Plan, including:

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[24] Bay Area Air Quality Management District. 2006, September. Community Air Risk Evaluation Program, Phase I Findings and Policy Recommendations Related to Toxic Air Contaminants in the San Francisco Bay Area. http://www.baaqmd.gov/Divisions/Planning-and-Research/%20%20%20%20%20%20%20%20%20%20%20%20%20Planning-Programs-and-Initiatives/CARE-Program/~/media/54D434A0EB8348B78A71C4DE32831544.ashx.

[25] Bay Area Air Quality Management District. 2016, December. Air Toxics NSR Program, Health Risk Screening Analysis Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en.

- BAAQMD, Regulation 2, Rule 2, New Source Review
- BAAQMD, Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- BAAQMD Regulation 6, Rule 1, General Requirements
- BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment
- BAAQMD Regulation 8, Rule 3, Architectural Coatings
- BAAQMD Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- BAAQMD Regulation 8, Rule 7, Gasoline Dispensing Facilities
- BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing)

1.1.4 Santa Clara Valley Transportation Authority

The Santa Clara Valley Transportation Authority (VTA) is the congestion management agency for Santa Clara County. VTA is tasked with developing a comprehensive transportation improvement program among local jurisdictions that will reduce traffic congestion and improve land use decision making and air quality. VTA's latest congestion management program (CMP) is the *2015 Congestion Management Program*. VTA's countywide transportation model must be consistent with the regional transportation model developed by the MTC with ABAG data. The countywide transportation model is used to help evaluate cumulative transportation impacts of local land use decisions on the CMP system. In addition, VTA's updated CMP includes multi-modal performance standards and trip reduction and transportation demand management strategies consistent with the goal of reducing regional VMT in accordance with Senate Bill 375 (SB 375). Strategies identified in the 2015 CMP for Santa Clara County, where local jurisdictions are responsible agencies, include:[26]

- **Traffic Level of Service:** Monitor and submit report on the level of service (LOS) on CMP roadway network intersections using CMP software and procedures.
- **Transportation Model and Database:** Certify that member agency models are consistent with the CMP model.
- **Community Form and Impact Analysis:** Prepare a transportation impact analysis (TIA) for projects that generate 100 or more peak hour trips and submit to the CMP according to TIA Guidelines schedule.
- **Community Form and Impact Analysis:** Submit relevant conditions of approval to VTA for projects generating TIAs.
- **Community Form and Impact Analysis:** Prepare and submit land use monitoring data to the CMP on all land use projects approved from July 1 to June 30 of the previous year.

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[26] Santa Clara Valley Transportation Authority (VTA). 2017, December. 2017 Congestion Management Program. http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/2017_CMP_Document.pdf.

- **Community Form and Impact Analysis:** Submit an annual statement certifying that the member agency has complied with the CMP Land Use Impact Analysis Program.
- **Monitoring and Conformance:** Outline the requirements and procedures established for conducting annual traffic LOS and land use monitoring efforts. Support the Traffic Level of Service and Community Form and Impact Analysis Elements.
- **Capital Improvement Program:** Develop a list of projects intended to maintain or improve the level of service on the designated system and to maintain transit performance standards.
- **Deficiency Plan:** Prepare deficiency plans for facilities that violate CMP traffic LOS standards or that are projected to violate LOS standards using the adopted deficiency plan requirements.
- **Deficiency Plan:** Submit a deficiency plan implementation status report as part of annual monitoring.

ENVIRONMENTAL SETTING

1.1.5 San Francisco Bay Area Air Basin

The BAAQMD is the regional air quality agency for the SFBAAB, which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[27]

1.1.5.1 METEOROLOGY

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits, resulting in a western coast gap, Golden Gate, and an eastern coast gap, Carquinez Strait, which allow air to flow in and out of the SFBAAB and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast.

The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

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[27] Bay Area Air Quality Management District. 2017, May. Appendix C: Sample Air Quality Setting, in *California Environmental Quality Act Air Quality Guidelines*. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

1.1.5.2 WIND PATTERNS

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills.

Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap. For example, the average wind speed at San Francisco International Airport in July is about 17 knots (from 3:00 p.m. to 4:00 p.m.), compared with only 7 knots at San Jose and less than 6 knots at the Farallon Islands.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon. As the day progresses, the sea breeze layer deepens and increases in velocity while spreading inland. The depth of the sea breeze depends in large part upon the height and strength of the inversion. If the inversion is low and strong, and hence stable, the flow of the sea breeze will be inhibited and stagnant conditions are likely to result.

In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

1.1.5.3 TEMPERATURE

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons the temperatures at the coast can be 35 degrees Fahrenheit (ºF) cooler than temperatures 15 to 20 miles inland. At night this contrast usually decreases to less than 10 ºF.

In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

1.1.5.4 PRECIPITATION

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e. air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, when mixing and ventilation are low and pollutant levels build up.

1.1.5.5 WIND CIRCULATION

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

1.1.5.6 INVERSIONS

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth, i.e. the vertical depth in the atmosphere available for diluting air contaminants near the ground. There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions are more common in the summer and fall, and radiation inversions are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

1.1.6 Existing Ambient Air Quality

1.1.6.1 ATTAINMENT STATUS OF THE SFBAAB

Areas that meet AAQS are classified attainment areas, and areas that do not meet these standards are classified nonattainment areas. Severity classifications for O_3 range from marginal, moderate, and serious to severe and extreme. The attainment status for the air basin is shown in Table 2. The air basin is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS.

Table 2 Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	Classification revoked (2005)
Ozone – 8-hour	Nonattainment (serious)	Nonattainment
PM_{10}	Nonattainment	Unclassified/Attainment
$PM_{2.5}$	Nonattainment	Unclassified/Attainment[a]
CO	Attainment	Attainment
NO_2	Attainment	Unclassified
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	Unclassified/Attainment

Table 2 Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin

Pollutant	State	Federal
All others	Unclassified/Attainment	Unclassified/Attainment

Source: California Air Resources Board, 2017, October. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[a] In December 2014, US EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ National AAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015 (Bay Area Air Quality Management District. 2017, January 5. Air Quality Standards and Attainment Status. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status).

1.1.6.2 EXISTING AMBIENT AIR QUALITY

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements made by the BAAQMD. The BAAQMD monitoring stations closest to the project site is the Los Gatos, Los Gatos – 306 University Ave, Cupertino-22601 Voss Ave, and San Jose – 156B Jackson Street Monitoring Stations. Data from this station is summarized in Table 3. The data show occasional violations of the State and federal O_3 standards, as well as state PM_{10} and federal $PM_{2.5}$ standards. The State and federal CO and NO_2 standards have not been exceeded in the last five years in the vicinity of the project site.

Table 3 Ambient Air Quality Monitoring Summary

	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
Pollutant/Standard	2014	2015	2016	2017	2018
Ozone (O_3)					
State 1-Hour ≥ 0.09 ppm	0	1	0	0	0
State 8-hour ≥ 0.07 ppm	2	4	0	3	0
Federal 8-Hour > 0.075 ppm	1	2	0	0	0
Maximum 1-Hour Conc. (ppm)	0.090	0.100	0.091	0.093	0.082
Maximum 8-Hour Conc. (ppm)	0.077	0.084	0.065	0.075	0.067
Carbon Monoxide (CO)					
State 8-Hour > 9.0 ppm	*	*	*	*	*
Federal 8-Hour ≥ 9.0 ppm	*	*	*	*	*
Maximum 8-Hour Conc. (ppm)	*	*	*	*	*
Nitrogen Dioxide (NO_2)					
State 1-Hour ≥ 0.18 (ppm)	0	0	0	0	0
Maximum 1-Hour Conc. (ppb)	58.4	49.3	51.1	67.5	86.1
Coarse Particulates (PM_{10})					
State 24-Hour > 50 µg/m3	1	1	0	6	4
Federal 24-Hour > 150 µg/m3	0	0	0	0	1
Maximum 24-Hour Conc. (µg/m3)	56.4	58.8	41.0	69.8	155.8
Fine Particulates ($PM_{2.5}$)					
Federal 24-Hour > 35 µg/m^3	2	2	0	6	15
Maximum 24-Hour Conc. (µg/m^3)	60.4	49.4	22.6	49.7	133.9

Source: California Air Resources Board, 2015, Air Pollution Data Monitoring Cards (2011, 2012, 2013, 2014, and 2015), Accessed May 4, 2016, http://www.arb.ca.gov/adam/index.html. Data from Cupertino Monitoring Station for years 2010–2013. Data from the San Jose Jackson Street Monitoring Station for years 2014-2015.

Notes: ppm: parts per million; ppb: parts per billion; µg/m^3: or micrograms per cubic meter

* = insufficient data

1.1.6.3 EXISTING EMISSIONS

The existing neighborhood retail center and residential uses onsite currently generate criteria air pollutant emissions and GHG emissions from transportation sources, energy use (electricity and natural gas), area sources (consumer products, landscaping equipment, etc.), and indirect GHG emissions from water use and wastewater generation and solid waste disposal.

1.1.7 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, since the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the population.

The nearest sensitive receptors are single-family homes surrounding the project site. Single family homes to the north, south and west are adjacent to the project property and single-family homes to the east are approximately 50 feet away, across Stevens Canyon Road.

1.2 METHODOLOGY

The BAAQMD "CEQA Air Quality Guidelines" were prepared to assist in the evaluation of air quality impacts of projects and plans proposed in the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Guidelines. In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a risk and hazards threshold for new receptors and modified procedures for assessing impacts related to risk and hazard impacts; however, this later amendment regarding risk and hazards was the subject of the December 17, 2015 Supreme Court decision (*California Building Industry Association v BAAQMD*), which clarified that CEQA does not require an evaluation of impacts of the environment on a project.[28]

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[28] On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance in the BAAQMD CEQA Air Quality Guidelines. The court did not determine whether the thresholds of significance were valid on their merits, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease

1.2.1 Criteria Air Pollutant Emissions

The proposed project qualifies as a project-level project under BAAQMD's criteria. For project-level analyses, BAAQMD has adopted screening criteria and significance criteria that would be applicable to the proposed project. If a project exceeds the screening level, it would be required to conduct a full analysis using BAAQMD's significance criteria.

Regional Significance Criteria

BAAQMD's criteria for regional significance for projects that exceed the screening thresholds are shown in Table 4. Criteria for both construction and operational phases of the project are shown.

Table 4 BAAQMD Regional (Mass Emissions) Criteria Air Pollutant Significance Thresholds

	Construction Phase	Operational Phase	
Pollutant	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (Tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
PM_{10} and $PM_{2.5}$ Fugitive Dust	Best Management Practices	None	None

Source: Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

Local CO Hotspots

Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots. The significance criteria for CO hotspots are based on the California AAQS for CO, which is 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average). However, with the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the California and National AAQS, and CO concentrations in the SFBAAB have steadily declined. Because CO concentrations have improved, BAAQMD does not require a CO hotspot analysis if the following criteria are met:

- Project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.

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dissemination of them until the BAAQMD complied with CEQA. Following the court's order, the BAAQMD released revised CEQA Air Quality Guidelines in May of 2012 that include guidance on calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, and which set aside the significance thresholds. The Alameda County Superior Court, in ordering BAAQMD to set aside the thresholds, did not address the merits of the science or evidence supporting the thresholds, and in light of the subsequent case history discussed below, the science and reasoning contained in the BAAQMD 2011 CEQA Air Quality Guidelines provide the latest state-of-the-art guidance available. On August 13, 2013, the First District Court of Appeal ordered the trial court to reverse the judgment and upheld the BAAQMD's CEQA Guidelines. (*California Building Industry Association versus BAAQMD, Case No. A135335 and A136212 (Court of Appeal, First District, August 13, 2013*).)

- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

- The project traffic would not increase traffic volumes at affected intersection to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g. tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).[29]

Odors

BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. In addition, odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property. Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.[30]

1.2.2 Community Risk and Hazards

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to the siting of a new source. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project (*California Building Industry Association v. Bay Area Air Quality Management District [2015] 62 Cal.4th 369 [Case No. S213478]*). CEQA does not require an environmental evaluation to analyze the environmental effects of attracting development and people to an area. However, the environmental evaluation must analyze the impacts of environmental hazards on future users when the proposed project exacerbates an existing environmental hazard or condition or if there is an exception to this exemption identified in the Public Resources Code. Schools, residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

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[29] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[30] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

For assessing community risk and hazards, sources within a 1,000-foot radius are considered. Sources are defined as freeways, high volume roadways (with volume of 10,000 vehicles or more per day or 1,000 trucks per day), and permitted sources.[31,32]

The proposed project would generate TACs and $PM_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the surrounding residential receptors. The BAAQMD has adopted screening tables for air toxics evaluation during construction.[33] Construction-related TAC and $PM_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors, as applicable.[34]

The project threshold identified below is applied to the proposed project's construction phase emissions:

Community Risk and Hazards – Project

Project-level construction emissions of TACs or $PM_{2.5}$ from the proposed project to individual sensitive receptors within 1,000 feet of the project site that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- Non-compliance with a qualified Community Risk Reduction Plan;
- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e. chronic or acute) hazard index greater than 1.0 would be a significant cumulatively considerable contribution;
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ from a single source would be a significant, cumulatively considerable contribution.[35]

Community Risk and Hazards – Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone.

A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds the following:

- Non-compliance with a qualified Community Risk Reduction Plan; or

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[31] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[32] Bay Area Air Quality Management District. 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards.

[33] Bay Area Air Quality Management District. 2010. Screening Tables for Air Toxics Evaluations during Construction.

[34] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[35] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

- An excess cancer risk levels of more than 100 in one million or a chronic non-cancer hazard index (from all local sources) greater than 10.0; or
- 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.[36]

Current BAAQMD guidance recommends the determination of cancer risks using the Office of Environmental Health Hazard Assessment's (OEHHA) methodology, which was originally adopted in 2003.[37,38] In February 2015, OEHHA adopted new health risk assessment guidance which includes several efforts to be more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rates.[39] However, BAAQMD has not formally adopted the new OEHHA methodology into their CEQA guidance. To be conservative, the cancer risks associated with project implementation and significance conclusions were determined using the new 2015 OEHHA guidance for risk assessments.

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[36] Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[37] Bay Area Air Quality Management District. 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards.

[38] Office of Environmental Health Hazard Assessment. 2003. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

[39] Office of Environmental Health Hazard Assessment. 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

2. Greenhouse Gas Emissions

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[40,41,42] The major GHG are briefly described below.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global warming potential (GWP) gases.

    - ***Chlorofluorocarbons (CFCs)*** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

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[40] Intergovernmental Panel on Climate Change, 2001. Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

[41] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop of changing radiative forcing rather than a primary cause of change.

[42] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities. However, state and national GHG inventories do not include black carbon yet due to ongoing work related to resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

- ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.

- ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced, along with HFCs, as alternatives to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

- ***Sulfur Hexafluoride (SF_6)*** is a colorless gas, soluble in alcohol and ether and slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

- ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs. [43,44]

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high global warming potential (GWP) gases. Table 5 lists the GHG and their relative GWP compared to CO_2. The GWP is used to convert GHGs to CO_2-equivalent (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4) GWP values for CH_4 are such that a project generating 10 metric tons (MT) of CH_4 would be equivalent to 250 MT of CO_2.

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[43] United States Environmental Protection Agency. 2015. Overview of Greenhouse Gases. http://www3.epa.gov/climatechange/ghgemissions/gases.html.

[44] Intergovernmental Panel on Climate Change. 2001. Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

Table 5 GHG Emissions and their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[a]	Fourth Assessment Report Global Warming Potential Relative to CO_2[a]
Carbon Dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[b] (CH_4)	12 (±3)	12	21	25
Nitrous Oxide (N_2O)	120	114	310	298
Hydrofluorocarbons:				
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF_4	50,000	50,000	6,500	7,390
Perfluoroethane: C_2F_6	10,000	10,000	9,200	12,200
Perfluorobutane: C_4F_{10}	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C_6F_{14}	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF_6)	3,200	NA	23,900	22,800

Source: Intergovernmental Panel on Climate Change, 1996, Second Assessment Report: Climate Change 1996, New York: Cambridge University Press; and Intergovernmental Panel on Climate Change, 2007, Fourth Assessment Report: Climate Change 2001, New York: Cambridge University Press.

Notes: The IPCC has published updated global warming potential (GWP) values in its Fifth Assessment Report (2013) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in the Second Assessment Report are still used by SCAQMD to maintain consistency in GHG emissions modeling. In addition, the 2008 Scoping Plan was based on the GWP values in the Second Assessment Report.

[a] Based on 100-year time horizon of the GWP of the air pollutant relative to CO_2.

[b] The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

2.1 CALIFORNIA'S GREENHOUSE GAS SOURCES AND RELATIVE CONTRIBUTION

California is the 20th largest GHG emitter in the world and the second largest emitter of GHG in the United States, only surpassed by Texas.[45] However, California also has over 12 million more people than the State of Texas. Because of more stringent air emission regulations, in 2015, California ranked third lowest in energy-related carbon emissions per capita.[46]

In 2019, the statewide GHG emissions inventory was updated for 2000 to 2017 emissions using the GWPs in IPCC's AR4.[47] Based on these GWPs, California produced 424.10 $MMTCO_2e$ GHG emissions in 2017.

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[45] California Air Resources Board. 2014, March. California Greenhouse Gas Inventory for 2000-2012 - by Category as Defined in the 2008 Scoping Plan. https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2012/ghg_inventory_scopingplan_00-12_2014-03-24.pdf.

[46] US Energy Information Administration (USEIA). 2018, January 22. Energy-Related Carbon Dioxide Emissions at the State Level, 2000-2015. https://www.eia.gov/environment/emissions/state/analysis/.

[47] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

California's transportation sector was the single largest generator of GHG emissions, producing 40.1 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.7 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (9.7 percent), agriculture and forestry (7.6 percent) high GWP (4.7 percent), and recycling and waste (2.1 percent).[48]

California's GHG emissions have followed a declining trend since 2007. In 2017, emissions from routine GHG emitting activities statewide were 424 MMTCO$_2$e, 5 MMTCO$_2$e lower than 2016 levels. This represents an overall decrease of 14 percent since peak levels in 2004 and 7 MMTCO$_2$e below the 1990 level and the state's 2020 GHG target. During the 2000 to 2017 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 14.0 MTCO$_2$e per capita to 10.7 MTCO$_2$e per capita in 2017, a 24 percent decrease. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining, representing a 41 percent decline since the 2001 peak, while the state's GDP has grown 52 percent during this period. For the first time since California started to track GHG emissions, California uses more electricity from zero-GHG sources (hydro, solar, wind, and nuclear energy). [49]

2.2 HUMAN INFLUENCE ON CLIMATE CHANGE

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that are attributable to human activities. The amount of CO$_2$ in the Earth's atmosphere has increased by more than 35 percent since preindustrial times, and the concentration of CO$_2$ in the atmosphere has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation.[50] These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone.[51] Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.[52] In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime.[53]

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict.

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[48] California Air Resources Board (CARB). 2019, August 26. 2019 Edition California Greenhouse Gas Inventory for 2000-2017: By Category as Defined in the 2008 Scoping Plan. https://www.arb.ca.gov/cc/inventory/data/data.htm.

[49] 2019, August 26. California Greenhouse Emissions for 2000 to 2017: Trends of Emissions and Other Indicators. https://www.arb.ca.gov/cc/inventory/data/data.htm.

[50] Intergovernmental Panel on Climate Change. 2007. Fourth Assessment Report: Climate Change 2007, New York: Cambridge University Press.

[51] At the end of the last ice age, the concentration of CO2 increased by around 100 ppm (parts per million) over about 8,000 years, or approximately 1.25 ppm per century. Since the start of the industrial revolution, the rate of increase has accelerated markedly. The rate of CO$_2$ accumulation currently stands at around 150 ppm/century—more than 200 times faster than the background rate for the past 15,000 years.

[52] California Climate Action Team. 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature, March.

[53] Intergovernmental Panel on Climate Change. 2007. Fourth Assessment Report: Climate Change 2007, New York: Cambridge University Press.

Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historic trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas;
- Warmer and more frequent hot days and nights over most land areas;
- An increase in frequency of warm spells/heat waves over most land areas;
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas;
- Areas affected by drought increases;
- Intense tropical cyclone activity increases;
- Increased incidence of extreme high sea level (excluding tsunamis).

2.3 POTENTIAL CLIMATE CHANGE IMPACTS FOR CALIFORNIA

Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada. By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1–8.6°F, depending on emissions levels.[54]

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in the springs, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms.[55] According to the California Climate Action Team, even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 6 and include public health impacts, water resources impacts, agricultural impacts, coastal sea level impacts, forest and biological resource impacts, and energy impacts.

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[54] California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. https://ww2.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf.

[55] California Environmental Protection Agency. 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature. https://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

Table 6 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: California Energy Commission, 2006, Our Changing Climate: Assessing the Risks to California, 2006 Biennial Report, California Climate Change Center, CEC-500-2006-077; California Energy Commission, 2008, The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California, CEC-500-2008-0077. California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July.

Specific climate change impacts that could affect the project include:

- ***Water Resources Impacts.*** By late-century, all projections show drying, and half of the projections suggest 30-year average precipitation will decline by more than 10 percent below the historical average. This drying trend is caused by an apparent decline in the frequency of rain and snowfall. Even in projections with relatively small or no declines in precipitation, central and southern parts of the State can be expected to be drier from the warming effects alone as the spring snowpack will melt sooner, and the moisture contained in soils will evaporate during long dry summer months.[56]

- ***Wildfire Risks***. Earlier snowmelt, higher temperatures and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related changes in vegetation and ignition potential from lightning. Human activities will

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[56] California Climate Change Center. 2012, July. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. https://ww2.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf

continue to be the biggest factor in ignition risk. The number of large fires statewide are estimated to increase from 58 percent to 128 percent above historical levels by 2085. Under the same emissions scenario, estimated burned area will increase by 57 percent to 169 percent, depending on location.[57]

- ***Health Impacts.*** Many of the gravest threats to public health in California stem from the increase of extreme conditions, principally more frequent, more intense, and longer heat waves. Particular concern centers on the increasing tendency for multiple hot days in succession, and heat waves occurring simultaneously in several regions throughout the State. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California.[58]

- ***Increase Energy Demand.*** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the State will drive up the demand for cooling in the increasingly hot and longer summer season and decrease demand for heating in the cooler season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process from higher temperatures) and hydropower plants (lower reservoir levels). Transmission of electricity will also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity needs to be produced to make up for the loss in capacity and the growing demand.[59]

2.1 REGULATORY FRAMEWORK

2.1.1 Federal Laws

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.[60]

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[57] California Environmental Protection Agency. 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature. https://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

[58] California Environmental Protection Agency. 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature. https://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

[59] California Environmental Protection Agency. 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature. https://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.

[60] United States Environmental Protection Agency. 2009, December. EPA: Greenhouse Gases Threaten Public Health and the Environment. Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity. https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html.

The EPA's endangerment finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project because they constitute the majority of GHG emissions from the onsite land uses, and per BAAQMD guidance are the GHG emissions that should be evaluated as part of a GHG emissions inventory.

2.1.1.1 US MANDATORY REPORTING RULE FOR GREENHOUSE GASES (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO_2 per year are required to submit an annual report.

2.1.1.2 UPDATE TO CORPORATE AVERAGE FUEL ECONOMY STANDARDS (2010/2012)

The current Corporate Average Fuel Economy (CAFE) standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be considered to be in compliance with State requirements. The federal government issued new standards in 2012 for model years 2017–2025, which will require a fleet average of 54.5 mpg in 2025.

While the EPA is reexamining the 2017–2025 emissions and CAFE standards, a consortium of automakers and California have agreed on a voluntary framework to reduce emissions that can serve as an alternative path forward for clean vehicle standards nationwide. Automakers who agreed to the framework are Ford, Honda, BMW of North America and Volkswagen Group of America. The framework supports continued annual reductions of vehicle greenhouse gas emissions through the 2026 model year, encourages innovation to accelerate the transition to electric vehicles, and provides industry the certainty needed to make investments and create jobs. This commitment means that the auto companies party to the voluntary agreement will only sell cars in the United States that meet these standards.[61]

2.1.1.3 EPA REGULATION OF STATIONARY SOURCES UNDER THE CLEAN AIR ACT (ONGOING)

Pursuant to its authority under the Clean Air Act (CAA), the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to President Obama's 2013 Climate Action Plan, the EPA was directed to also develop regulations for existing stationary sources. However, the EPA is reviewing the Clean Power Plan under President Trump's Energy Independence Executive Order.

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[61] California Air Resources Board. 2019, September 5 (accessed). California and major automakers reach groundbreaking framework agreement on clean emission standards. https://ww2.arb.ca.gov/news/california-and-major-automakers-reach-groundbreaking-framework-agreement-clean-emission.

2.1.2 State Laws

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and Senate Bill 375.

2.1.2.1 EXECUTIVE ORDER S-03-05

Executive Order S-03-05, signed June 1, 2005. Executive Order S-03-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

2.1.2.2 ASSEMBLY BILL 32, THE GLOBAL WARMING SOLUTIONS ACT

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

2.1.2.3 CARB 2008 SCOPING PLAN

The final Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state.[62] In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 $MTCO_2e$ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

2.1.2.4 FIRST UPDATE TO THE SCOPING PLAN

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan, adopted at the May 22, 2014, board hearing, highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, are slightly higher at 431 $MMTCO_2e$.[63]

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals in a post-2020 element. The post-2020 element provides a high level view of a long-term strategy for meeting the 2050 GHG goals, including a

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[62] California Air Resources Board. 2008, October. Climate Change Proposed Scoping Plan, a Framework for Change. https://ww3.arb.ca.gov/cc/scopingplan/document/psp.pdf

[63] California Air Resources Board. 2014, March 24. California Greenhouse Gas Inventory for 2000–2012: By Category as Defined by the Scoping Plan, http://www.arb.ca.gov/cc/inventory/data/data.htm.

recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals.[64] CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit.[65]

2.1.2.5 EXECUTIVE ORDER B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

2.1.2.6 SENATE BILL 32 AND ASSEMBLY BILL 197

In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 14, 2017, CARB adopted the *2017 Climate Change Scoping Plan Update*. The *2017 Climate Change Scoping Plan Update* includes the regulations and programs to achieve the 2030 target, including strategies consistent with AB 197 requirements. The 2017 Scoping Plan establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.[66]

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and

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[64] California Air Resources Board. 2014, March 24. California Greenhouse Gas Inventory for 2000–2012: By Category as Defined by the Scoping Plan, http://www.arb.ca.gov/cc/inventory/data/data.htm.

[65] California Air Resources Board. 2014, March 24. California Greenhouse Gas Inventory for 2000–2012: By Category as Defined by the Scoping Plan, http://www.arb.ca.gov/cc/inventory/data/data.htm.

[66] California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

other lands. Requirements for GHG reductions at stationary sources complement efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency and utilizes NZE technology and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydroflurocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the state's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 $MTCO_2e$ or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and the state's sustainable development objectives, and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the state's 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from vehicle miles traveled (VMT), and direct investments in GHG reductions in the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.[67]

The Scoping Plan scenario is set against what is called the business-as-usual yardstick—that is, what GHG emissions would look like if the state did nothing beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 7, *2017 Climate Change Scoping Plan Emissions Reductions Gap*. It includes the existing renewables requirements, advanced clean cars, the "10 percent" LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. As shown in the table, the known commitments are expected to result in emissions that are 60 MMTCO$_2$e above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 7 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions MMTCO$_2$e
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	**260**
Gap to 2030 Target with Known Commitments	**60**

Source: California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

Table 8, *2017 Scoping Plan Emissions Changes by Sector to Achieve the 2030 Target*, provides estimated GHG emissions by sector compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

Table 8 2017 Scoping Plan Emissions Changes by Sector to Achieve the 2030 Target

Scoping Plan Sector	1990 MMTCO$_2$e	2030 Proposed Plan Ranges MMTCO$_2$e	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink[a]	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	431	260	-40%

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[67] California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

Table 8 2017 Scoping Plan Emissions Changes by Sector to Achieve the 2030 Target

Scoping Plan Sector	1990 MMTCO$_2$e	2030 Proposed Plan Ranges MMTCO$_2$e	% Change from 1990

Source: California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.

[a] Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

2.1.2.7 SENATE BILL 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Reduction Strategy," which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use.[68] In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

2.1.2.8 SENATE BILL 375/SUSTAINABLE COMMUNITIES STRATEGY

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Metropolitan Transportation Commission (MTC) is the MPO for the nine-county San Francisco Bay Area region. Pursuant to the recommendations of the Regional Transportation Advisory Committee (RTAC), CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018. The updated targets become effective on October 1, 2018. The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and

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[68] CARB. 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm.

action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies, and any potential future state strategies, such as statewide road user pricing.

The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS to achieve the SB 375 targets. For next SCS update, CARB's updated targets for the MTC/ABAG region are a 10 percent per capita GHG reduction in 2020 from 2005 levels (compared to 7 percent under the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 15 percent). CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies.

Plan Bay Area, Strategy for a Sustainable Region

Plan Bay Area 2040 is the Bay Area's RTP/SCS and was adopted jointly by ABAG and MTC on July 26, 2017. It lays out a development scenario for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by CARB. Plan Bay Area 2040 is a limited and focused update to the 2013 Plan Bay Area, with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last several years.

As part of the implementing framework for Plan Bay Area, local governments have identified Priority Development Areas (PDAs) to focus growth. PDAs are transit-oriented, infill development opportunity areas in existing communities. Overall, well over two-thirds of all regional growth in the Bay Area by 2040 is allocated in PDAs. Per the Final Plan Bay Area 2040, while the projected number of new housing units and new jobs within PDAs would increase to 629,000 units and 707,000 jobs compared to the adopted Plan Bay Area 2013, its overall share would be reduced to 77 percent and 55 percent.[69] However, Plan Bay Area 2040 remains on track to meet a 16 percent per capita reduction of GHG emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions.[70] The proposed project site is not within a PPA.[71]

2.1.2.9 ASSEMBLY BILL 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG

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[69] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2017, March. Plan Bay Area 2040 Plan.

[70] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2017, March. Plan Bay Area 2040 Plan.

[71] Associated Bay Area Governments (ABAG). July 2015. Priority Development Area Showcase, http://gis.abag.ca.gov/website/PDAShowcase/.

emissions standards for model year 2017 through 2025 light-duty vehicles.[72] In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.[73]

2.1.2.10 EXECUTIVE ORDER S-1-07

On January 18, 2007, the State set a new Low Carbon Fuel Standard (LCFS) for transportation fuels sold in California. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The LCFS applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle," using the most economically feasible methods.

2.1.2.11 EXECUTIVE ORDER B-16-2012

On March 23, 2012, the State identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g. electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's State vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

2.1.2.12 SENATE BILLS 1078 AND 107 AND EXECUTIVE ORDER S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the State's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SBX1-2). The increase in renewable sources for electricity

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[72] See also the discussion on the update to the CAFE standards under federal laws, above. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

[73] See also the discussion on the update to the CAFE standards under Federal Laws, above. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

2.1.2.13 SENATE BILL 350

Senate Bill 350 (de Leon), was signed into law September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

2.1.2.14 CALIFORNIA BUILDING STANDARDS CODE – BUILDING ENERGY EFFICIENCY STANDARDS

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the CEC adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017.

The 2016 Standards continues to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively (CEC 2015a). Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features. While the 2016 standards do not achieve zero net energy, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California.[74]

The 2019 standards move towards cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of 3 stories and less. Four key areas the 2019 standards will focus on include 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards while single-family homes will be 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards.[75]

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[74] California Energy Commission (CEC). 2015. 2016 Building Energy and Efficiency Standards Frequently Asked Questions. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf.

[75] CEC. 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

2.1.2.15 CALIFORNIA GREEN BUILDING STANDARDS CODE – CALGREEN

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, CCR). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[76] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011, was last updated in 2016. The CEC adopted the 2019 CALGreen on May 9, 2018. The 2019 CALGreen standards become effective January 1, 2020.

2.1.2.16 2006 APPLIANCE ENERGY EFFICIENCY REGULATIONS

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

2.1.2.17 SOLID WASTE REGULATIONS

California's Integrated Waste Management Act of 1989 (AB 939; Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327; Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2016 and 2019 CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling

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[76] The green building standards became mandatory in the 2010 edition of the code.

program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

2.1.2.18 WATER EFFICIENCY REGULATIONS

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water

2.1.3 Local Regulations

2.1.3.1 CITY OF CUPERTINO CLIMATE ACTION PLAN

The City of Cupertino published the public draft Climate Action Plan (CAP) in December, 2014 to achieve the GHG reduction target of AB 32 for target year 2020. The CAP serves to support California's statewide climate change efforts through identification of actions that can be taken locally, by residents, businesses, and the City itself, to ensure the State's ambitious reduction goals can be achieved. The strategies outlined in the CAP seek to not only reduce GHG emissions, but also provide energy, water, fuel, and cost savings for the City.[77] The goals established by the City's CAP are the following:

- Goal 1 – Reduce Energy Use: Increase energy efficiency in existing homes and buildings and increase use of renewable energy community-wide.
- Goal 2 – Encourage Alternative Transportation: Support transit, carpooling, walking, and bicycling as viable transportation modes to decrease the number of single-occupancy vehicle trips within the community.
- Goal 3 – Conserve Water: Promote the efficient use and conservation of water in buildings and landscapes.
- Goal 4 – Reduce Solid Waste: Strengthen waste reduction efforts through recycling and organics collection and reduced consumption of materials that otherwise end up in landfills.

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[77] City of Cupertino, 2015. Climate Action Plan. 2015, January. http://www.cupertino.org/home/showdocument?id=13531.

- Goal 5 – Expand Green Infrastructure: Enhance the City's existing urban forest on public and private lands.

2.2 ENVIRONMENTAL SETTING

2.2.1 Existing Emissions

The project site is currently developed with surface parking and two structures, one operational restaurant and one vacant office building. Existing site uses generate greenhouse gas emissions from mobile, area, and energy sources.

2.3 METHODOLOGY

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential GHG emissions impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background information.

2.3.1 Greenhouse Gas Emissions

BAAQMD has a tiered approach for assessing GHG emissions impacts of a project. If a project is within the jurisdiction of an agency that has a "qualified" GHG reduction strategy, the project can assess consistency of its GHG emissions impacts with the reduction strategy.

BAAQMD has adopted screening criteria and significance criteria for development projects that would be applicable for the proposed project. If a project exceeds the Guidelines' GHG screening-level sizes, the project would be required to conduct a full GHG analysis using the following BAAQMD significance criteria:

- 1,100 MT of CO_2e per year; or
- 4.6 MT of CO_2e per service population (SP) for year 2020

AB 32 requires the statewide GHG emission be reduced to 1990 levels by 2020. On a per-capita basis, that means reducing the annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.[78] Hence, BAAQMD's per capita significance threshold is calculated based on the State's land use sector emissions inventory prepared by CARB and the demographic forecasts for the 2008 Scoping Plan. The land use sector GHG emissions for 1990 were estimated by BAAQMD, as identified in Appendix D of the BAAQMD CEQA Guidelines, to be 295.53 $MMTCO_2e$and the 2020 California service population (SP) to be 64.3 million. Therefore, the significance threshold that would ensure consistency with the GHG reduction goals of AB 32 is estimated at 4.6 $MTCO_2e/SP$ for year 2020.[79]

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[78] California Air Resources Board, 2008. Climate Change Scoping Plan: A Framework for Change.

[79] Bay Area Air Quality Management District, 2017, May, California Environmental Quality Act Air Quality Guidelines.

Land use development projects include residential, commercial, industrial, and public land use facilities. Direct sources of emissions may include on-site combustion of energy, such as natural gas used for heating and cooking, emissions from industrial processes (not applicable for most land use development projects), and fuel combustion from mobile sources. Indirect emissions are emissions produced off-site from energy production, water conveyance due to a project's energy use and water consumption, and non-biogenic emissions from waste disposal. Biogenic CO_2 emissions are not included in the quantification of a project's GHG emissions, because biogenic CO_2 is derived from living biomass (e.g. organic matter present in wood, paper, vegetable oils, animal fat, food, animal, and yard waste) as opposed to fossil fuels. Although GHG emissions from waste generation are included in the GHG inventory for the proposed project, the efficiency threshold of 4.6 $MTCO_2e$ per service population for 2020 identified above does not include the waste sector, and it is therefore not considered in the evaluation.

BAAQMD does not have thresholds of significance for construction-related GHG emissions, but requires quantification and disclosure of construction-related GHG emissions.[80] For operational phases, if projects exceed the bright line and per capita efficiency targets, GHG emissions would be considered potentially significant in the absence of mitigation measures.

Post-2020 GHG Thresholds

For projects that would be implemented beyond year 2020, the efficiency targets have been adjusted based on the GHG reduction targets of Senate Bill 32, which set a goal of 40 percent below 1990 levels by 2030. Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, which includes the regulations and programs to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.[81] As shown in Table 9, *2030 GHG Reduction Targets,* using the latest land use emissions inventory developed for the 2017 Scoping Plan, the estimated 2030 GHG project-level efficiency target would be 3.1 $MTCO_2e$ per service population per year.

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[80] Bay Area Air Quality Management District, 2017, May, California Environmental Quality Act Air Quality Guidelines.

[81] California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

Table 9 2030 GHG Reduction Targets

GHG Sector[a]	Scoping Plan Scenario GHG Emissions $MMTCO_2e$
2017 Scoping Plan End Use Sector 2030 – Land Use Only Sectors	
Residential – residential energy consumption	41.4
Commercial – commercial energy consumption	30.1
Transportation – transportation energy consumption	105.1
Transportation Communications and Utilities – energy that supports public infrastructure like street lighting and waste treatment facilities	5
Solid Waste Non-Energy GHGs	9.1
Total 2017 Scoping Plan Land Use Sector Target	260
2030 Project-Level Efficiency Target	
2030 Population[b]	44,085,600
2030 Employment[c]	19,210,760
2030 Service Population	63,296,360
2030 Efficiency Target	3.1 $MTCO_2e$/SP

Sources:

[a] California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

[b] California Department of Finance. 2016. Report P-2: State and County Population Projections by Race/Ethnicity and Age (5-year groups). http://www.dof.ca.gov/Forecasting/Demographics/projections/documents/P-2_Age5yr_CAProj_2010-2060.xls..

[c] California Department of Transportation (Caltrans). 2016. Traffic Census Program. Year 2015 Truck Traffic. http://www.dot.ca.gov/trafficops/census/. Without industrial and agricultural sectors.

Criteria Air Pollutant Emissions Summary - Construction

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Unmitigated	0.24	1.81	1.35	0.00	0.09	0.07	0.16	0.03	0.07	0.10
Total Mitigated	0.15	1.22	1.54	0.00	0.09	0.01	0.10	0.03	0.01	0.04

UNMITIGATED

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	0.22	1.39	1.18	0.00	0.04	0.07	0.11	0.02	0.07	0.08
Total Offsite	0.02	0.42	0.18	0.00	0.05	0.00	0.05	0.01	0.00	0.02
check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR CONSTRUCTION RISK ASSESSMENT - Unmitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite	0.11	1.06	0.85	0.00	0.04	0.05	0.09	0.02	0.05	0.07
2020 Offsite	0.02	0.39	0.14	0.00	0.04	0.00	0.04	0.01	0.00	0.01
2021 Onsite	0.11	0.33	0.33	0.00	0.00	0.02	0.02	0.00	0.02	0.02
2021 Offsite	0.00	0.03	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00

FOR CONSTRUCTION REGIONAL EMISSIONS - Unmitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total 2020	0.13	1.45	0.99	0.00	0.08	0.06	0.14	0.03	0.05	0.08
Total 2021	0.11	0.36	0.36	0.00	0.01	0.02	0.03	0.00	0.02	0.02
Check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	0.13	0.80	1.37	0.00	0.04	0.01	0.05	0.02	0.01	0.03
Total Offsite	0.02	0.42	0.18	0.00	0.05	0.00	0.05	0.01	0.00	0.02
check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR CONSTRUCTION RISK ASSESSMENT - Mitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite	0.04	0.58	1.00	0.00	0.04	0.01	0.05	0.02	0.01	0.02
2020 Offsite	0.02	0.39	0.14	0.00	0.04	0.00	0.04	0.01	0.00	0.01
2021 Onsite	0.09	0.22	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2021 Offsite	0.00	0.03	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00

FOR CONSTRUCTION REGIONAL EMISSIONS - Mitigated Run

tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total 2020	0.06	0.97	1.14	0.00	0.08	0.01	0.09	0.03	0.01	0.04
Total 2021	0.09	0.26	0.40	0.00	0.01	0.00	0.01	0.00	0.00	0.01
Check	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2 Demolition Equipment - 2020

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.01	0.13	0.09	0.00		0.01	0.01		0.01	0.01
Total		0.01	0.13	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.05	0.09	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.05	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3 Building Demolition Haul - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.04	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.04	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.04	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.04	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.4 Asphalt Demolition Haul - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Utility Installation - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.02	0.20	0.21	0.00		0.01	0.01		0.01	0.01
Total		0.02	0.20	0.21	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.01	0.16	0.30	0.00		0.00	0.00		0.00	0.00
Total		0.01	0.16	0.30	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 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
Category	tons/yr										
Fugitive Dust						0.02	0.00	0.02	0.01	0.00	0.01
Off-Road		0.01	0.15	0.06	0.00		0.01	0.01		0.01	0.01
Total		0.01	0.15	0.06	0.00	0.02	0.01	0.03	0.01	0.01	0.02

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.02	0.00	0.02	0.01	0.00	0.01
Off-Road		0.00	0.04	0.08	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.04	0.08	0.00	0.02	0.00	0.02	0.01	0.00	0.01

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Site Preparation Haul - 2020

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.11	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.11	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.11	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.11	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.6 Rough Grading - 2020

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.04	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.01	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9 Rough Grading Haul - 2020

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.15	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.15	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.15	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.15	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

310 Fine 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
Category	tons/yr										
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.04	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.01	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11 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
Category	tons/yr										
Off-Road		0.06	0.51	0.45	0.00		0.03	0.03		0.03	0.03
Total		0.06	0.51	0.45	0.00		0.03	0.03		0.03	0.03

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.01	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.01	0.07	0.06	0.00	0.02	0.00	0.02	0.00	0.00	0.01

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.03	0.31	0.49	0.00		0.01	0.01		0.01	0.01
Total		0.03	0.31	0.49	0.00		0.01	0.01		0.01	0.01

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.01	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.01	0.07	0.06	0.00	0.02	0.00	0.02	0.00	0.00	0.01

3.11 Building Construction - 2021

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.03	0.24	0.23	0.00		0.01	0.01		0.01	0.01
Total		0.03	0.24	0.23	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.00	0.03	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.01	0.16	0.26	0.00		0.00	0.00		0.00	0.00
Total		0.01	0.16	0.26	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.00	0.03	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.12 Asphalt Paving - 2021

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.00	0.04	0.05	0.00		0.00	0.00		0.00	0.00
Paving		0.00					0.00	0.00		0.00	0.00
Total		0.00	0.04	0.05	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.00	0.03	0.06	0.00		0.00	0.00		0.00	0.00
Paving		0.00					0.00	0.00		0.00	0.00
Total		0.00	0.03	0.06	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13 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
Category	tons/yr										
Archit. Coating		0.07					0.00	0.00		0.00	0.00
Off-Road		0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total		0.07	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Archit. Coating		0.07					0.00	0.00		0.00	0.00
Off-Road		0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total		0.07	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14 Finish/Landscaping - 2021

Unmitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.00	0.03	0.04	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.03	0.04	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Off-Road		0.00	0.02	0.04	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.02	0.04	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Criteria Air Pollutant Emissions Summary - Construction Unmitigated

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Total Construction Days	2020	2021	Calendar Days
209	154	55	291

Unmigated Run - with Best Control Measures for Fugitive Dust

average lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	2	17	13	0	1	1	2	0	1	1
BAAQMD Threshold	54	54	NA	NA	BMP	82	54	BMP	54	NA
Exceeds Threshold	No	No	NA	NA	NA	No	No	NA	No	NA

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
TOTAL 2020	2	19	13	0	1	1	2	0	1	1
TOTAL 2021	4	13	13	0	0	1	1	0	1	1
	3									

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite	2.10	13.29	11.24	0.02	0.38	0.68	1.06	0.16	0.65	0.81
Total Offsite	0.23	4.02	1.69	0.01	0.48	0.02	0.50	0.13	0.02	0.15
	0	0			0	0		0	0	

FOR CONSTRUCTION RISK ASSESSMENT

Onsite Details

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite	1.46	13.78	10.99	0.02	0.51	0.70	1.21	0.22	0.66	0.88
2021 Onsite	3.90	11.89	11.97	0.02	0.00	0.63	0.63	0.00	0.60	0.60
	3.26	12.39								

Offsite Details

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Offsite	0.26	5.00	1.84	0.02	0.52	0.027	0.54	0.14	0.026	0.17
2021 Offsite	0.17	1.26	1.28	0.01	0.38	0.004	0.39	0.10	0.004	0.11

Criteria Air Pollutant Emissions Summary - Construction Mitigated

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Total Construction Days	2020	2021	Calendar Days
209	154	55	291

Mitigated - Tier 4 Interim Engines for Eq. > 50 hp; with Best Control Measures for Fugitive Dust

	average lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		1	12	15	0	1	0	1	0	0	0
BAAQMD Threshold		54	54	NA	NA	BMP	82	54	BMP	54	NA
Exceeds Threshold		No	No	NA	NA	NA	No	No	NA	No	NA

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
TOTAL 2020		1	13	15	0	1	0	1	0	0	0
TOTAL 2021		3	9	14	0	0	0	0	0	0	0
check		3	10	15	0	1	0	1	0	0	0

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite		1.24	7.70	13.07	0.02	0.38	0.09	0.46	0.16	0.09	0.25
Total Offsite		0.23	4.02	1.69	0.01	0.48	0.02	0.50	0.13	0.02	0.15
check		0	0	0	0	0	0	0	0	0	0

FOR CONSTRUCTION RISK ASSESSMENT

Onsite Details

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Onsite		0.55	7.58	13.03	0.02	0.51	0.08	0.60	0.22	0.08	0.30
2021 Onsite		3.17	8.03	13.19	0.02	0.00	0.09	0.09	0.00	0.09	0.09
check		2.48	7.91	13.14	0.02	0.13	0.09	0.22	0.06	0.09	0.15

Offsite Details

	avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2020 Offsite		0.26	5.00	1.84	0.02	0.52	0.027	0.54	0.14	0.026	0.17
2021 Offsite		0.17	1.26	1.28	0.01	0.38	0.004	0.39	0.10	0.004	0.11

Criteria Air Pollutant Emissions Summary - Operations

Existing 2019

Mitigated Operational

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Area		0.06	0.00	0.01	0.00		0.00	0.00		0.00	0.00
Energy		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Mobile		0.16	0.71	2.03	0.01	0.52	0.01	0.53	0.14	0.01	0.15
Waste							0.00	0.00		0.00	0.00
Water							0.00	0.00		0.00	0.00
Total		0.23	0.71	2.04	0.01	0.52	0.01	0.53	0.14	0.01	0.15
BAAQMD Threshold (T/YR)		10	10	NA	NA	NA	NA	15	NA	NA	10
Exceeds thresholds		No	No					No			No

Existing at Buildout

Mitigated Operational

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Area		0.06	0.00	0.01	0.00		0.00	0.00		0.00	0.00
Energy		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Mobile		0.14	0.59	1.70	0.01	0.52	0.00	0.53	0.14	0.00	0.14
Waste							0.00	0.00		0.00	0.00
Water							0.00	0.00		0.00	0.00
Total		0.20	0.60	1.71	0.01	0.52	0.01	0.53	0.14	0.00	0.14
BAAQMD Threshold (T/YR)		10	10	NA	NA	NA	NA	15	NA	NA	10
Exceeds thresholds		No	No					No			No

Project at Buildout

Mitigated Operational

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Area		0.19	0.00	0.14	0.00		0.00	0.00		0.00	0.00
Energy		0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00
Mobile		0.08	0.33	0.95	0.00	0.29	0.00	0.29	0.08	0.00	0.08
Waste							0.00	0.00		0.00	0.00
Water							0.00	0.00		0.00	0.00
Total		0.27	0.35	1.09	0.00	0.29	0.00	0.29	0.08	0.00	0.08
BAAQMD Threshold (T/YR)		10	10	NA	NA	NA	NA	15	NA	NA	10
Exceeds thresholds		No	No					No			No

Net

Mitigated Operational

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	tons/yr										
Area		0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile		-0.06	-0.26	-0.75	0.00	-0.23	0.00	-0.23	-0.06	0.00	-0.06
Waste		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	-0.25	-0.62	0.00	-0.23	0.00	-0.23	-0.06	0.00	-0.06
BAAQMD Threshold (T/YR)		10	10	NA	NA	NA	NA	15	NA	NA	10
Exceeds thresholds		No	No					No			No

Criteria Air Pollutant Emissions Summary - Operations

Annual emissions divided by 365 days/year to obtain average daily emissions.

Existing 2019

lbs/day	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5
Area	0	0	0	0	0	0	0	0	0	0
Energy	0	0	0	0	0	0	0	0	0	0
Mobile	1	4	11	0	3	0	3	1	0	1
Waste	0	0	0	0	0	0	0	0	0	0
Water	0	0	0	0	0	0	0	0	0	0
Total	1	4	11	0	3	0	3	1	0	1
BAAQMD Threshold (Daily)	54	54					82			54
Exceeds Threshold	No	No					No			No

Existing at Buildout

lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	0	0	0	0	0	0	0	0	0	0
Energy	0	0	0	0	0	0	0	0	0	0
Mobile	1	3	9	0	3	0	3	1	0	1
Waste	0	0	0	0	0	0	0	0	0	0
Water	0	0	0	0	0	0	0	0	0	0
Total	1	3	9	0	3	0	3	1	0	1
BAAQMD Threshold (Daily)	54	54					82			54
Exceeds Threshold	No	No					No			No

Project At Buildout

lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	1	0	1	0	0	0	0	0	0	0
Energy	0	0	0	0	0	0	0	0	0	0
Mobile	0	2	5	0	2	0	2	0	0	0
Waste	0	0	0	0	0	0	0	0	0	0
Water	0	0	0	0	0	0	0	0	0	0
Total	1	2	6	0	2	0	2	0	0	0
BAAQMD Threshold (Daily)	54	54					82			54
Exceeds Threshold	No	No					No			No

Net

lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	1	0	1	0	0	0	0	0	0	0
Energy	0	0	0	0	0	0	0	0	0	0
Mobile	0	-1	-4	0	-1	0	-1	0	0	0
Waste	0	0	0	0	0	0	0	0	0	0
Water	0	0	0	0	0	0	0	0	0	0
Total	0	-1	-3	0	-1	0	-1	0	0	0
BAAQMD Threshold (Daily)	54	54					82			54
Exceeds Threshold	No	No					No			No

GHG Emissions Inventory

Existing Conditions 2019

Area	0	$MTCO_2e$/Year**
Energy	5	$MTCO_2e$/Year
Mobile	335	$MTCO_2e$/Year
Solid Waste	7	$MTCO_2e$/Year
Water	1	$MTCO_2e$/Year
Total	**347**	**$MTCO_2e$/Year**

Proposed Project Buildout

Construction

	$MTCO_2e$ Total Project*
2020	253
2021	63
Total Construction	**316**

*CalEEMod, Version 2016.3.2.

Area	2	$MTCO_2e$/Year**
Energy	20	$MTCO_2e$/Year
Mobile	294	$MTCO_2e$/Year
Solid Waste	7	$MTCO_2e$/Year
Water	1	$MTCO_2e$/Year
30-Yr Amortized Construction Emissions	11	$MTCO_2e$/Year
Total	**334**	**$MTCO_2e$/Year**

Net Emissions

Area	2	$MTCO_2e$/Year**
Energy	16	$MTCO_2e$/Year
Mobile	-41	$MTCO_2e$/Year
Solid Waste	0	$MTCO_2e$/Year
Water	0	$MTCO_2e$/Year
Amortized Construction Emissions***	11	$MTCO_2e$/Year
Net Emissions	**-13**	
BAAQMD Bright-Line Screening Threshold	1,100	$MTCO_2e$/Year
Exceed Threshold?	**No**	

*CalEEMod, Version 2016.3.2.

** $MTCO_2e$=metric tons of carbon dioxide equivalent.

CalEEMod Inputs (Construction Run) - COCU-15

Name: Canyon Crossings Mixed-Use Project
Project Location: 10625 South Foothill Boulevard, Cupertino 95014
County/Air Basin: Santa Clara County/ SFBAAB
Climate Zone: 4
Land Use Setting: Urban
Operational Year: 2021
Utility Company: Silicon Valley Clean Energy (SVCE)

Total Site Acreage: 1.57
Disturbed Site Acreage: 1.57

Site Plan 4/11/2019	SQFT	Acreage	Units
Residential	40851		18
Mixed-Use Flat (Apartments)	7851	0	5
Single Family	13170	0.30	5
Townhouses	19830	0.23	8
Retail	4536	0.10	
Landscaping	24,000	0.55	
Hardscaping	14,000	0.32	
Parking Structure	16922	NA	
Surface Parking	2613.6	0.06	
		1.57	

CalEEMod Land Use Inputs

Land Use Type	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Mixed-Use Flat (Apartments)	Residential	Apartments Low Rise	5	dwelling units	0.00	7,851
Single Family	Residential	Single Family Housing	5	dwelling units	0.30	13,170
Townhouses	Residential	Condo/Townhouse	8	dwelling units	0.23	19,830
Retail	Retail	Strip Mall	4.54	1000 sqft	0.10	4,536
Landscaping + Hardscaping	Parking	Other Non-Asphalt Surface	38.00	1000 sqft	0.87	38000
Parking Structure	Parking	Enclosed Parking Structure	16.92	1000 sqft	0.00	16,922
Surface Parking	Parking	Parking Lot	2.61	1000 sqft	0.06	2,614
					1.57	

Demolition Haul

Component	Amount to be Demolished (SQFT)	Amount to be Demolished (Tons)	Haul Truck Capacity (tons)**	Haul Distance (miles)*	Total Trip Ends**	Duration (days)	Trips Ends/Day
Asphalt	-	294	5	20	118	2	58.8
Buildings	13,225	1616	5	20	646	11	59
		1,910			**764**		

*CalEEMod Default. The Newby Island Landfill is 17.6 miles away; and therefore, modeling is conservative.

** Applicant provided the building SQFT and Tonnage of Demo and Haul Truck Capacity. 5 ton trucks are MHDT.

Soil Haul

	Total Volume (CY) Export**	Haul Truck Capacity (CY)*	Haul Distance (miles)*	Total Trip Ends	Total Days	Trip Ends/Day
Site Preparation	6,000	16	20	**750**	6	125
Rough Grading	8,100	16	20	**1,013**	5	203

*CalEEMod Default.

** Applicant provided the grading haul (export

Architectural Coating

VOC Content Provided by the Applicant
Interior Paint VOC content: 25
Exterior Paint VOC content: 25
Architectural Coating % * CalEEMod Default
Percentage of Buildings' Interior Painted: 100%
Percentage of Buildings' Exterior Painted: 100%

Structures	Land Use Square Feet	CalEEMod Paintable Surface Area Multiplier[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Residential					
Apartments Low Rise	7,851	2.7	21,198	15,898	5,299
Single Family Housing	13,170	2.7	35,559	26,669	8,890
Condo/Townhouse	19,830	2.7	53,541	40,156	13,385
		Residential Total	**110,298**	**82,723**	**27,574**
Non-Residential					
Retail	4,536	2	9,072	6,804	2,268
		Non-Residential Totals	**9,072**	**6,804**	**2,268**
Parking Structure	16,922	0.06	1,015	-	1,015
Surface Parking	2,614	0.06	157	-	157
		Striping Totals	**1,172**	**0**	**1,172**

Notes:

[1] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

Construction BMPs

Replace Ground Cover	PM10:	5	% Reduction
	PM25:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph
Clean Paved Road		9	% PM Reduction

CalEEMod Construction Phase Inputs*

5-Day Work Week/8 hours per day

Phase 1	Phase Type	Start Date	End Date	CalEEMod Total Days	Total Days
Demolition Equipment	Demolition	6/1/2020	6/16/2020	12	15
Building Demolition Haul	*Demolition*	*6/1/2020*	*6/15/2020*	*11*	*14*
Asphalt Demolition Haul	*Demolition*	*6/15/2020*	*6/16/2020*	*2*	*1*
Utility Installation	Trenching	6/16/2020	8/7/2020	39	52
Site Preparation Equipment	Site Preparation	6/17/2020	7/8/2020	16	21
Site Preparation Haul	*Site Preparation*	*7/1/2020*	*7/8/2020*	*6*	*7*
Rough Grading Equipment	Grading	7/9/2020	7/15/2020	5	6
Rough Grading Haul	*Grading*	*7/9/2020*	*7/15/2020*	*5*	*6*
Fine Grading	Grading	8/8/2020	8/15/2020	5	7
Building Construction	Building Construction	8/16/2020	3/15/2021	151	211
Asphalt Paving	Asphalt Paving	2/17/2021	3/3/2021	11	14
Architectural Coating	Architectural Coating	2/17/2021	3/3/2021	11	14
Finishing/Landscaping	Building Construction	3/4/2021	3/18/2021	11	14

Year	Start Date	End Date	Days
2020	6/1/2020	12/31/2020	154
2021	1/1/2021	3/18/2021	55
		Total	**209**

*Based on construction schedule CalEEmod defaults.

Assumes rough grading haul occurs during the rought grading phase

Assumes same duration and schedule for architectural coating as asphalt paving

CalEEMod Construction Off-Road Equipment Inputs*
Phase

	Equipment Type	Unit Amount	Hours/Day	HP	LF	Trips
Demolition						
	Concrete/Industrial Saws	1	8	81	0.73	
	Rubber Tired Dozers	1	8	247	0.4	
	Tractors/Loaders/Backhoes	3	8	97	0.37	
	Water Truck**					4
	Worker Trips					13
	Vendor Trips					4
	Haul Trips - building					646
	Haul Trips - apshalt					118
Site Preparation						
	Graders	1	8	187	0.41	
	Rubber Tired Dozers	1	7	247	0.4	
	Tractor/Loader/Backhoes	1	8	97	0.37	
	Water Truck**					4
	Worker Trips					8
	Vendor Trips					4
	Haul Trips					**750**
Utility Installation						
	Excavators	2	8	158	0.038	
	Tractors/Loaders/Backhoes	1	8	97	0.37	
	Bore/Drill Rigs	1	8	221	0.5	
	Worker Trips					0
	Vendor Trips					0
	Haul Trips					0
Rough Grading						
	Graders	1	6	187	0.41	
	Rubber Tired Dozers	1	6	247	0.4	
	Tractor/Loader/Backhoe	1	7	97	0.37	
	Water Truck**					4
	Worker Trips					8
	Vendor Trips					4
	Haul Trips					**1,013**
Fine Grading						
	Graders	1	6	187	0.41	
	Rubber Tired Dozers	1	6	247	0.4	
	Tractor/Loader/Backhoe	1	7	97	0.37	
	Water Truck**					4
	Worker Trips					8
	Vendor Trips					4
Building Construction						
	Cranes[1]	1	4	231	0.29	
	Forklifts	1	6	89	0.2	
	Generator Sets	1	8	84	0.74	
	Tractors/Loaders/Backhoes	1	6	97	0.37	
	Welders[1]	1	8	46	0.45	
	Vendor Trips					37
	Worker Trips					12
Paving						
	Cement and Mortar Mixers	1	6	9	0.56	
	Pavers	1	6	130	0.42	
	Paving Equipment	1	8	137	0.36	
	Rollers	1	7	80	0.38	
	Tractors/Loaders/Backhoes	1	8	97	0.37	
	Worker Trips					13
	Vendor Trips					0
Architectural Coating						
	Air Compressors	1	6	78	0.48	
	Worker Trips					7
	Vendor Trips					0
Landscaping						
	Skip Loader (Tractor/Loader/backhoes)	2	8	97	0.37	
	Skid Steer (Tractor/Loader/backhoes)	1	8	97	0.37	
	Worker Trips					18
	Vendor Trips					0

*CalEEMod defaults.

**Assume 4 vendor trips for water trucks.

CalEEMod Inputs--Existing

Name: Canyon Crossings Mixed-Use Project
Project Location: 10625 South Foothill Boulevard, Cupertino 95014
County/Air Basin: Santa Clara County/ SFBAAB
Climate Zone: 4
Land Use Setting: Urban
Operational Year: 2021
Utility Company: Silicon Valley Clean Energy (SVCE)

Total Site Acreage: 1.57

Existing Components	Existing SQFT	Acreage
Retail*	12,125	
Residential*	1,100	
Parking**	10,070	
Other Asphalt Surfaces	29,518	
Other Non-asphalt surfaces	3,841	
Additional Area	11,735	
	68,389	1.57

*Estimating 1,100 of the 13,225 sqft provided by applicant is associated with residential land use
** Google Earth Estimate, site plan did not include parking sqft

Existing CalEEMod Land Use Inputs

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Retail	Retail	Strip Mall	12.13	1000 sqft	0.278	12,125
Residential	Residential	Single Family	1.00	DU	0.025	1,100
Parking	Parking	Parking Lot	10.07	1000 sqft	0.231	10,070
Other Asphalt Surfaces	Parking	Other Asphalt Surfaces	29.52	1000 sqft	0.678	29,518
Other Non-asphalt surfaces	Parking	Other Non-asphalt surfaces	3.84	1000 sqft	0.088	3,841
Additional Area	Parking	Other Asphalt Surfaces	11.74	1000 sqft	0.269	11,735
				Total	**1.57**	**68,389**

Carbon Intensity of Electricity for Proposed Project

CO_2**	CH_4**	N_2O**	CO_2e
lbs/Mwh	lbs/Mwh	lbs/Mwh	lbs/Mwh
10.84	0.0000332	0.0000044	10.8430

**Global Warming Potentials from the Climate Change 2007, IPCC Fourth Assessment Report (AR4).*
***Monterey Bay Community Power, Power Mix. Accessed April 4, 2019. https://www.mbcommunitypower.org/our-power-mix/.*

Trip Generations

*Weekday Trips based on the Traffic Impact Analysis provided by TJKM. The TJKM Daily trip generation is based on a 11,100 SQFT retail shop and not a 12,125 SQFT retail shop. Daily trips for this use are adjusted based on the trip rate provided in the study.

	Weekday		CalEEMod Default Trip Purpose (%)		
	Average Daily Trips	CalEEMod Rate	Primary Trip (PR)	Diverted (DV)	Passby (PB)
Retail	518	42.70	86%	11%	3%
Residential	6	5.81	86%	11%	3%
Total Trips	**524**				

	Saturday		Sunday	
	Average Daily Trips	CalEEMod Rate	Average Daily Trips	CalEEMod Rate
Retail	538	44.41	471	38.86
Residential	6	6.04	5	5.29
Total Trips	**544**		**476**	

VMT (Weekday)

CalEEMod Default Trip Length (by socio-economic trip types)

RESIDENTIAL	CalEEMod Default Trip Length (miles)	% of Trips	NON-RESIDENTIAL	CalEEMod Default Trip Length (miles)	% of Trips
Home-Work (HW)	**10.4**	31%	Commercial-Commercial (CC)	7.3	64%
Home-School (HS)	4.8	15%	Commceral-Work (CW)	**7.9**	17%
Home-Other (HO)	5.7	54%	Commerical-NonWork (CNW)	7.3	19%

Home to Work and Commercial to Work trips based on the trip length provided by TJKM.

	Annual	Daily
VMT	1,399,880	3,835

Energy Use

Existing buildings were constructed prior to the 2005 Building Energy Efficiency Standards; and therefore, the "historic" rates in CalEEMod, which are based on the 2005 Standards, were used to estimate existing building energy use.

Hearth Emissions

BAAQMD Regulation 6, Rule 3, Wood-Burning Devices, prohobits installation of new wood-burning devices. All Fireplaces would be gas fireplaces.

	# Conventional	# Caltalytic	# Non-Catalytic	#Pellet
Assumes no woodstoves	0	0	0	0

	# Wood	# Gas	# Propane	# No Fireplace	Hours/Day	Days/Year
Single Family	0	1	0	0	3.5	11.14

Solid Waste *CalEEMod Default

Land Use	Solid Waste Generation Rate (tons/year)
Single Family House	1.26
Retail	12.74

Water Use *CalEEMod Default

Land Use	Indoor Water (gal/year)	Outdoor Water (Gal/year)
Single Family House	65,154	41,075
Retail	898,500	550,693

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

Architectural Coating

Interior Paint VOC content:	100
Exterior Paint VOC content:	150
Percentage of Buildings' Interior Painted:	100%
Percentage of Buildings' Exterior Painted:	100%

Structures	Land Use Square Feet	CalEEMod Paintable Surface Area Multiplier[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Residential					
Single Family House	1,100	2.7	2,970	2,228	743
		Residential Total	**2,970**	**2,228**	**743**
Non-Residential					
Retail	12,125	2	24,250	18,188	6,063
		Non-Residential Totals	**24,250**	**18,188**	**6,063**
Parking Lot	10,070	0.06	604	-	604
		Striping Totals	**604**	**0**	**604**

Notes:

[1] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

CalEEMod Inputs Project

Name: Canyon Crossings Mixed-Use Project
Project Location: 10625 South Foothill Boulevard, Cupertino 95014
County/Air Basin: Santa Clara County/ SFBAAB
Climate Zone: 4
Land Use Setting: Urban
Operational Year: 2021
Utility Company: Silicon Valley Clean Energy (SVCE)

Total Site Acreage:	1.57	Total SF	68,389
Disturbed Site Acreage:	1.57	Total Disturbed SF	68,389

CalEEMod Land Use Inputs

Land Use Type	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Mixed-Use Flat (Apartments)	Residential	Apartments Low Rise	5	dwelling units	0.00	7,851
Single Family	Residential	Single Family Housing	5	dwelling units	0.30	13,170
Townhouses	Residential	Condo/Townhouse	8	dwelling units	0.23	19,830
Retail	Retail	Stip Mall	4.54	1000 sqft	0.10	4,536
Landscaping + Hardscaping	Parking	Other Non-Asphalt Surface	38.00	1000 sqft	0.87	38,000
Parking Structure	Parking	Enclosed Parking Structure w/Elevator	16.92	1000 sqft	0.00	16,922
Surface Parking	Parking	Parking Lot	2.61	1000 sqft	0.06	2,614
					1.57	

Carbon Intensity of Electricity for Proposed Project

CO_2**	CH_4**	N_2O**	CO_2e
lbs/Mwh	lbs/Mwh	lbs/Mwh	lbs/Mwh
10.84	0.0000332	0.0000044	10.85

**Global Warming Potentials from the Climate Change 2007, IPCC Fourth Assessment Report (AR4).*
***Silicon Valley Clean Energy Power Mix from California Department of Energy. Utility Annual Power Content Labels for 2017. 2017 Silicon Valley Clean Energy Power Content Label.*

Trip Generation

*Weekday Trips based on the Traffic Impact Analysis provided by TJKM. The TJKM Daily trip generation is based on a 5,000 SQFT retail shop and not a 4,540 SQFT retail shop. Daily trips for this use are adjusted based on the trip rate provided in the study.

	Weekday		CalEEMod Default Trip Purpose (%)		
	Average Daily Trips	**CalEEMod Rate**	**Primary Trip (PR)**	**Diverted (DV)**	**Passby (PB)**
Mixed-Use Flat (Apartments)	33	6.65	86%	11%	3%
Single Family	29	5.81	86%	11%	3%
Townhouses	46	5.81	86%	11%	3%
Retail (IITE Code 820)	194	42.70	45%	40%	15%
Total Trips	**302**				

	Saturday		Sunday	
	Average Daily Trips	**CalEEMod Rate**	**Average Daily Trips**	**CalEEMod Rate**
Mixed-Use Flat (Apartments)	35	6.92	30	6.05
Single Family	30	6.04	26	5.29
Townhouses	48	6.04	42	5.29
Retail (IITE Code 820)	250	55.08	87	19.22
Total Trips	**363**		**186**	

VMT (Weekday)

CalEEMod Default Trip Length (by socio-economic trip types)

RESIDENTIAL	**CalEEMod Trip Length (miles)**	**% of Trips**	**NON-RESIDENTIAL**	**CalEEMod Trip Length (miles)**	**% of Trips**
Home-Work (HW)	10.4	31%	Commercial-Commercial (CC)	7.3	64%
Home-School (HS)	4.8	15%	Commcerial-Work (CW)	7.9	17%
Home-Other (HO)	5.7	54%	Commerical-NonWork (CNW)	7.3	19%

Home to Work and Commercial to Work trips based on the trip length provided by TJKM.

	Annual	**Daily**
VMT	522,660	1,432

Solid Waste *CalEEMod Default

	Rate*	**Unit**	**ton/year**
Mixed-Use Flat (Apartments)	0.46	ton/unit/year	2.3
Single Family	0.46	ton/unit/year	2.3
Townhouses	0.46	ton/unit/year	3.7
Retail	1.05	ton/1000 sqft/year	4.8
			13

Water Use

*CalEEMod User's Guide Default

	Indoor Water Rate*	Outdoor Water Rate*	Unit	Indoor Water (gpy)	Outdoor Water (gpy)
Mixed-Use Flat (Apartments)	65,154	41,075	gal/unit/year	325,770	205,375
Single Family	65,154	41,075	gal/unit/year	325,770	205,375
Townhouses	65,154	41,075	gal/unit/year	521,232	328,600
Retail	74,073	45,399	gal/1000 sqft/year	335,995	205,930
				1,508,767	945,280

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

Water Mitigation - Water Efficient Landscape Ordinance Requirements

Install Low Flow Bathroom Faucet	32	% Reduction in flow
Install Low Flow Kitchen Faucet	18	% Reduction in flow
Install Low Flow Toilet	20	% Reduction in flow
Install Low Flow Shower	20	% Reduction in flow
Use Water Efficiency Irrigation System	6.1	% Reduction in flow

Hearth Emissions

BAAQMD Regulation 6, Rule 3, Wood-Burning Devices, prohobits installation of new wood-burning devices. All Fireplaces would be gas fireplaces.

	# Conventional	# Caltalytic	# Non-Catalytic	#Pellet
Assumes no woodstoves	0	0	0	0

	# Wood	# Gas	# Propane	# No Fireplace
Mixed-Use Flat (Apartments)	0	0	0	5
Townhouses	0	5	0	0
Single Family	0	8	0	0

Architectural Coating

See architectural coating calculations for construction

Energy

Buildings constructed after January 1, 2020 are required to meet the 2019 Building and Energy Efficiency Standards. The 2019 Standards are 30% more energy efficient for non-residential buildings and 7% more energy efficient for residential buildings than the 2016 Building and Energy Efficiency Standards.

Residential Exceed Title 24*	7%	Improvement over 2016
Non-Residential Exceed Title 24	30%	Improvement over 2016

Sources:

[1] California Energy Commission (CEC). 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. Accessed on April 3, 2019. http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

**Residential improvement over 2016 is for single-family homes only.*
**Multi-family of 4 stories and higher are treated as non-residential for the Building and Energy Efficiency Standards.*

Traffic Mitigation

Land Use & Site Enhancement

Project Setting	0

Commute

Implement Trip Reduction Program

% employee eligible	0
Program Type	0

PROPOSED METHODOLOGY

PROPOSED OPERATIONS

	TJKM Weekday Trips	TJKM Weekday VMT	Home to Work Trips*	Miles/Trip	CalEEMod Default Commute Trip Length
Residential Trips	109	352	**34**	10.4	10.8
Non-Residential Trips	**Trips**	**VMT**	**Employee Trips**	**Miles/Trip**	
	214	279	**36**	7.9	9.5
* Based on the CalEEMod Percentage of Trips					

CALEEMOD DEFAULTS	**Residential Trip Lengths**			**Percentage of Residential Trips**		
Land Use Subtype	**Home to Work**	**Home to Shop**	**Home to Other Land Use**	**Home to Work**	**Home to Shop**	**Home to Other Land Use**
Residential	10.8	4.8	5.7	31%	15%	54%
Modified	**Residential Trip Lengths**			**Percentage of Residential Trips**		
Land Use Subtype	**Home to Work**	**Home to Shop**	**Home to Other**	**Home to Work**	**Home to Shop**	**Home to Other Land Use**
Residential	10.4	4.8	5.7	**31%**	15%	54%

CALEEMOD DEFAULTS	**Commercial Use Trip Lengths**			**Percentage of Commercial Trips**		
Land Use Subtype	**Customer to Commercial**	**Employee to Commercial**	**Other to Commercial**	**Customer to Commercial**	**Employee to Commercial**	**Other to Commercial**
Strip Mall	7.3	9.5	7.3	64%	17%	19%
Modified	**Commercial Use Trip Lengths**			**Percentage of Commercial Trips**		
Land Use Subtype	**Customer to Commercial**	**Employee to Commercial**	**Other to Commercial**	**Customer to Commercial**	**Employee to Commercial**	**Other to Commercial**
Strip Mall	7.3	7.9	7.3	64%	**17%**	19%

City of Cupertino Carbon Intensity Factor Calculator

(SVCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply SVCE. The team consulted SVCE's Power Content Label, which identifies the percent of SVCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with SVCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects SVCE's particular sources of electricity.

$MTCO_2e$

			$MTCO_2e/kWh$
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	0.00052518
Large hydro	45.00%	45.00%	0.00000000
Natural gas	0.00%	0.00%	0.00040027
Nuclear	0.00%	0.00%	0.00000000
Oil	0.00%	0.00%	0.00061190
Other/unspecified	0.00%	0.00%	0.00042800
Biomass	6.00%	6.00%	0.00006741
Geothermal	1.00%	1.00%	0.00008747
Small hydro	2.00%	2.00%	0.00000000
Solar	10.00%	10.00%	0.00000000
Wind	36.00%	36.00%	0.00000000
	100.00%	100.00%	

	MTCO2e/kWh
Emission factor	**0.000004919**
Calculation check	0.000004919
	MTCO2e/MWh
	0.0049192942
	lbsCO2e/MWh
	10.845

City of Cupertino Carbon Intensity Factor Calculator

The project team calculated a custom electricity emissions factor for Silicon Valley Clean Energy (SVCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply SVCE. The team consulted SVCE's Power Content Label, which identifies the percent of SVCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with SVCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects SVCE's particular sources of electricity.

$MTCO_2$

			$MTCO_2/kWh$
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	0.000525182
Large hydro	45.00%	45.00%	0
Natural gas	0.00%	0.00%	0.000400274
Nuclear	0.00%	0.00%	0
Oil	0.00%	0.00%	0.0006119
Other/unspecified	0.00%	0.00%	0.00042508
Biomass	6.00%	6.00%	6.7393E-05
Geothermal	1.00%	1.00%	8.74747E-05
Small hydro	2.00%	2.00%	0
Solar	10.00%	10.00%	0
Wind	36.00%	36.00%	0
	100.00%	100.00%	

	MTCO2/kWh
Emission factor	**0.0000049183**
	MTCO2/MWh
	0.004918328266
	lbsCO2/MWh
	10.843

City of Cupertino Carbon Intensity Factor Calculator

by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply SVCE. The team consulted SVCE's Power Content Label, which identifies the percent of SVCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with SVCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects SVCE's particular sources of electricity.

$MTCH_4$

			$MTCO_4/kWh$
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	5.89676E-12
Large hydro	45.00%	45.00%	0
Natural gas	0.00%	0.00%	7.52558E-12
Nuclear	0.00%	0.00%	0
Oil	0.00%	0.00%	2.00932E-11
Other/unspecified	0.00%	0.00%	0.00000005
Biomass	6.00%	6.00%	2.51224E-10
Geothermal	1.00%	1.00%	0
Small hydro	2.00%	2.00%	0
Solar	10.00%	10.00%	0
Wind	36.00%	36.00%	0
	100.00%	100.00%	

	MTCH4/kWh
Emission factor	**0.000000000015**
	MTCH4/MWh
	0.0000000150734142
	lbsCH4/MWh
	0.000033

City of Cupertino Carbon Intensity Factor Calculator

The project team calculated a custom electricity emissions factor for Silicon Valley Clean Energy (SVCE) by consulting the most recent data from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). This database includes records of GHG emissions and power generation by all power plants in the United States. Using this information, the team determined the electricity emissions factor for all power plants within California by fuel source, since it is not feasible to identify the specific power plants that supply SVCE. The team consulted SVCE's Power Content Label, which identifies the percent of SVCE's electricity generated by various fuel sources. Using the average emissions factor for power plants by fuel source, in combination with SVCE's specific fuel mix, the team was able to calculate an emissions factor that accurately reflects SVCE's particular sources of electricity.

MTN_2O

			MTN_2O/kWh
Source	**Percent**	**Adjusted percent**	**Emission factor**
Coal	0.00%	0.00%	8.61834E-12
Large hydro	45.00%	45.00%	0
Natural gas	0.00%	0.00%	8.14808E-13
Nuclear	0.00%	0.00%	0
Oil	0.00%	0.00%	3.97229E-12
Other/unspecified	0.00%	0.00%	0.00
Biomass	6.00%	6.00%	3.29476E-11
Geothermal	1.00%	1.00%	0
Small hydro	2.00%	2.00%	0
Solar	10.00%	10.00%	0
Wind	36.00%	36.00%	0
	100.00%	100.00%	

	MTN2O/kWh
Emission factor	**0.000000000**
	MTN2O/MWh
	0.00000000197685409
	lbsN2O/MWh
	0.00000436

Canyon Crossings Operations Run

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	16.92	1000sqft	0.00	16,920.00	0
Other Non-Asphalt Surfaces	38.00	1000sqft	0.87	38,000.00	0
Parking Lot	2.61	1000sqft	0.06	2,610.00	0
Apartments Low Rise	5.00	Dwelling Unit	0.00	7,851.00	14
Condo/Townhouse	8.00	Dwelling Unit	0.23	19,830.00	23
Single Family Housing	5.00	Dwelling Unit	0.30	13,170.00	14
Strip Mall	4.54	1000sqft	0.10	4,540.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	10.84	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note: Utility company is Silicon Valley Clean Energy

Land Use - data provided by applicant

Construction Phase -

Vehicle Trips - trip rates provided by TJKM, assuming 100% primary trips

Woodstoves - Assuming no wood stoves

Area Coating - see assumptions file, data provided by applicant

Energy Use -

Water And Wastewater - calculated based on CalEEMod Appendix D Defaults, assumes 100% aerobic treatment

Solid Waste - calculated from CalEEMod Appendix D Defaults

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	25
tblAreaCoating	Area_EF_Nonresidential_Interior	100	25
tblAreaCoating	Area_EF_Parking	150	25
tblAreaCoating	Area_EF_Residential_Exterior	150	25
tblAreaCoating	Area_EF_Residential_Interior	100	25
tblAreaCoating	Area_Nonresidential_Exterior	2270	2268
tblAreaCoating	Area_Nonresidential_Interior	6810	6804
tblAreaCoating	Area_Parking	3452	1172
tblFireplaces	NumberGas	0.75	0.00
tblFireplaces	NumberGas	1.20	5.00
tblFireplaces	NumberGas	1.25	8.00
tblFireplaces	NumberNoFireplace	0.20	5.00
tblFireplaces	NumberNoFireplace	0.32	0.00
tblFireplaces	NumberNoFireplace	0.40	0.00
tblFireplaces	NumberWood	0.85	0.00
tblFireplaces	NumberWood	1.36	0.00
tblFireplaces	NumberWood	2.15	0.00
tblLandUse	LandUseSquareFeet	5,000.00	7,851.00
tblLandUse	LandUseSquareFeet	8,000.00	19,830.00
tblLandUse	LandUseSquareFeet	9,000.00	13,170.00
tblLandUse	LotAcreage	0.39	0.00

tblLandUse	LotAcreage	0.31	0.00
tblLandUse	LotAcreage	0.50	0.23
tblLandUse	LotAcreage	1.62	0.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	10.84
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblSolidWaste	SolidWasteGenerationRate	3.68	3.70
tblSolidWaste	SolidWasteGenerationRate	5.88	2.30
tblSolidWaste	SolidWasteGenerationRate	4.77	4.80
tblVehicleTrips	CW_TL	9.50	7.90
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HW_TL	10.80	10.40
tblVehicleTrips	HW_TL	10.80	10.40
tblVehicleTrips	HW_TL	10.80	10.40
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	7.16	6.92
tblVehicleTrips	ST_TR	5.67	6.04
tblVehicleTrips	ST_TR	9.91	6.04
tblVehicleTrips	ST_TR	42.04	55.08
tblVehicleTrips	SU_TR	6.07	6.05
tblVehicleTrips	SU_TR	4.84	5.29

tblVehicleTrips	SU_TR	8.62	5.29
tblVehicleTrips	SU_TR	20.43	19.22
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	9.52	5.81
tblVehicleTrips	WD_TR	44.32	42.70
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	325,770.13	325,770.00
tblWater	IndoorWaterUseRate	521,232.20	521,232.00
tblWater	IndoorWaterUseRate	325,770.13	325,770.00
tblWater	IndoorWaterUseRate	336,289.25	335,995.00
tblWater	OutdoorWaterUseRate	205,376.82	205,375.00
tblWater	OutdoorWaterUseRate	328,602.91	328,600.00
tblWater	OutdoorWaterUseRate	205,376.82	205,375.00
tblWater	OutdoorWaterUseRate	206,112.76	205,930.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.10	0.00
tblWoodstoves	NumberCatalytic	0.16	0.00
tblWoodstoves	NumberCatalytic	0.20	0.00
tblWoodstoves	NumberNoncatalytic	0.10	0.00
tblWoodstoves	NumberNoncatalytic	0.16	0.00
tblWoodstoves	NumberNoncatalytic	0.20	0.00

tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

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	0.1923	2.9500e-003	0.1351	2.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	1.8423	1.8423	2.5000e-004	3.0000e-005	1.8574
Energy	1.9200e-003	0.0165	7.2300e-003	1.0000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	20.2785	20.2785	3.7000e-004	3.5000e-004	20.3917
Mobile	0.0772	0.3325	0.9505	3.2100e-003	0.2896	2.7600e-003	0.2924	0.0775	2.5800e-003	0.0801	0.0000	293.6855	293.6855	9.9900e-003	0.0000	293.9352
Waste						0.0000	0.0000		0.0000	0.0000	2.6592	0.0000	2.6592	0.1572	0.0000	6.5880
Water						0.0000	0.0000		0.0000	0.0000	0.5338	0.0564	0.5902	1.8400e-003	1.1600e-003	0.9821
Total	**0.2714**	**0.3519**	**1.0929**	**3.3300e-003**	**0.2896**	**4.9400e-003**	**0.2946**	**0.0775**	**4.7600e-003**	**0.0823**	**3.1930**	**315.8627**	**319.0557**	**0.1696**	**1.5400e-003**	**323.7543**

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	0.1923	2.9500e-003	0.1351	2.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	1.8423	1.8423	2.5000e-004	3.0000e-005	1.8574
Energy	1.9200e-003	0.0165	7.2300e-003	1.0000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	20.2785	20.2785	3.7000e-004	3.5000e-004	20.3917
Mobile	0.0772	0.3325	0.9505	3.2100e-003	0.2896	2.7600e-003	0.2924	0.0775	2.5800e-003	0.0801	0.0000	293.6855	293.6855	9.9900e-003	0.0000	293.9352
Waste						0.0000	0.0000		0.0000	0.0000	2.6592	0.0000	2.6592	0.1572	0.0000	6.5880
Water						0.0000	0.0000		0.0000	0.0000	0.4270	0.0474	0.4744	1.4700e-003	9.3000e-004	0.7879
Total	**0.2714**	**0.3519**	**1.0929**	**3.3300e-003**	**0.2896**	**4.9400e-003**	**0.2946**	**0.0775**	**4.7600e-003**	**0.0823**	**3.0862**	**315.8537**	**318.9399**	**0.1692**	**1.3100e-003**	**323.5601**

	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**	**3.34**	**0.00**	**0.04**	**0.22**	**14.94**	**0.06**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.0772	0.3325	0.9505	3.2100e-003	0.2896	2.7600e-003	0.2924	0.0775	2.5800e-003	0.0801	0.0000	293.6855	293.6855	9.9900e-003	0.0000	293.9352
Unmitigated	0.0772	0.3325	0.9505	3.2100e-003	0.2896	2.7600e-003	0.2924	0.0775	2.5800e-003	0.0801	0.0000	293.6855	293.6855	9.9900e-003	0.0000	293.9352

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	33.25	34.60	30.25	84,385	84,385
Condo/Townhouse	46.48	48.32	42.32	117,956	117,956
Enclosed Parking with Elevator	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	29.05	30.20	26.45	73,723	73,723
Strip Mall	193.86	250.06	87.26	502,757	502,757
Total	302.64	363.18	186.28	778,821	778,821

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.40	4.80	5.70	31.00	15.00	54.00	100	0	0
Condo/Townhouse	10.40	4.80	5.70	31.00	15.00	54.00	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.40	4.80	5.70	31.00	15.00	54.00	100	0	0
Strip Mall	7.90	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Condo/Townhouse	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Enclosed Parking with Elevator	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Other Non-Asphalt Surfaces	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Parking Lot	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Single Family Housing	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Strip Mall	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

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	1.2349	1.2349	0.0000	0.0000	1.2349
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.2349	1.2349	0.0000	0.0000	1.2349
NaturalGas Mitigated	1.9200e-003	0.0165	7.2300e-003	1.0000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0436	19.0436	3.7000e-004	3.5000e-004	19.1568
NaturalGas Unmitigated	1.9200e-003	0.0165	7.2300e-003	1.0000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0436	19.0436	3.7000e-004	3.5000e-004	19.1568

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	50994.3	2.7000e-004	2.3500e-003	1.0000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7213	2.7213	5.0000e-005	5.0000e-005	2.7374
Condo/Townhouse	149784	8.1000e-004	6.9000e-003	2.9400e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	7.9931	7.9931	1.5000e-004	1.5000e-004	8.0406
Enclosed Parking with Elevator	0	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
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
Single Family Housing	145325	7.8000e-004	6.7000e-003	2.8500e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7551	7.7551	1.5000e-004	1.4000e-004	7.8012
Strip Mall	10759.8	6.0000e-005	5.3000e-004	4.4000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5742	0.5742	1.0000e-005	1.0000e-005	0.5776
Total		**1.9200e-003**	**0.0165**	**7.2300e-003**	**9.0000e-005**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**19.0436**	**19.0436**	**3.6000e-004**	**3.5000e-004**	**19.1568**

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	50994.3	2.7000e-004	2.3500e-003	1.0000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7213	2.7213	5.0000e-005	5.0000e-005	2.7374
Condo/Townhouse	149784	8.1000e-004	6.9000e-003	2.9400e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	7.9931	7.9931	1.5000e-004	1.5000e-004	8.0406
Enclosed Parking with Elevator	0	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
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
Single Family Housing	145325	7.8000e-004	6.7000e-003	2.8500e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7551	7.7551	1.5000e-004	1.4000e-004	7.8012
Strip Mall	10759.8	6.0000e-005	5.3000e-004	4.4000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5742	0.5742	1.0000e-005	1.0000e-005	0.5776
Total		**1.9200e-003**	**0.0165**	**7.2300e-003**	**9.0000e-005**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**19.0436**	**19.0436**	**3.6000e-004**	**3.5000e-004**	**19.1568**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	21744	0.1069	0.0000	0.0000	0.1069
Condo/Townhouse	40363.4	0.1985	0.0000	0.0000	0.1985
Enclosed Parking with Elevator	99151.2	0.4875	0.0000	0.0000	0.4875
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	913.5	4.4900e-003	0.0000	0.0000	4.4900e-003
Single Family Housing	40452.9	0.1989	0.0000	0.0000	0.1989
Strip Mall	48532.6	0.2386	0.0000	0.0000	0.2386
Total		**1.2349**	**0.0000**	**0.0000**	**1.2349**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	21744	0.1069	0.0000	0.0000	0.1069
Condo/Townhouse	40363.4	0.1985	0.0000	0.0000	0.1985
Enclosed Parking with Elevator	99151.2	0.4875	0.0000	0.0000	0.4875
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	913.5	4.4900e-003	0.0000	0.0000	4.4900e-003
Single Family Housing	40452.9	0.1989	0.0000	0.0000	0.1989
Strip Mall	48532.6	0.2386	0.0000	0.0000	0.2386
Total		**1.2349**	**0.0000**	**0.0000**	**1.2349**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.1923	2.9500e-003	0.1351	2.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	1.8423	1.8423	2.5000e-004	3.0000e-005	1.8574
Unmitigated	0.1923	2.9500e-003	0.1351	2.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	1.8423	1.8423	2.5000e-004	3.0000e-005	1.8574

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	6.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1810					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6000e-004	1.4000e-003	6.0000e-004	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.6229	1.6229	3.0000e-005	3.0000e-005	1.6326
Landscaping	4.1100e-003	1.5500e-003	0.1345	1.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	0.2194	0.2194	2.1000e-004	0.0000	0.2248
Total	**0.1922**	**2.9500e-003**	**0.1351**	**2.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**1.8423**	**1.8423**	**2.4000e-004**	**3.0000e-005**	**1.8573**

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	6.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1810					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6000e-004	1.4000e-003	6.0000e-004	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.6229	1.6229	3.0000e-005	3.0000e-005	1.6326
Landscaping	4.1100e-003	1.5500e-003	0.1345	1.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	0.2194	0.2194	2.1000e-004	0.0000	0.2248
Total	**0.1922**	**2.9500e-003**	**0.1351**	**2.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**1.8423**	**1.8423**	**2.4000e-004**	**3.0000e-005**	**1.8573**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4744	1.4700e-003	9.3000e-004	0.7879
Unmitigated	0.5902	1.8400e-003	1.1600e-003	0.9821

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0.32577 / 0.205375	0.1275	4.0000e-004	2.5000e-004	0.2121
Condo/Townhouse	0.521232 / 0.3286	0.2039	6.3000e-004	4.0000e-004	0.3393
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.32577 / 0.205375	0.1275	4.0000e-004	2.5000e-004	0.2121
Strip Mall	0.335995 / 0.20593	0.1314	4.1000e-004	2.6000e-004	0.2186
Total		**0.5902**	**1.8400e-003**	**1.1600e-003**	**0.9821**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0.260616 / 0.192847	0.1025	3.2000e-004	2.0000e-004	0.1702
Condo/Townhouse	0.416986 / 0.308555	0.1639	5.1000e-004	3.2000e-004	0.2722
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.260616 / 0.192847	0.1025	3.2000e-004	2.0000e-004	0.1702
Strip Mall	0.268796 / 0.193368	0.1056	3.3000e-004	2.1000e-004	0.1754
Total		**0.4744**	**1.4800e-003**	**9.3000e-004**	**0.7879**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.6592	0.1572	0.0000	6.5880
Unmitigated	2.6592	0.1572	0.0000	6.5880

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	2.3	0.4669	0.0276	0.0000	1.1567
Condo/Townhouse	3.7	0.7511	0.0444	0.0000	1.8607
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.3	0.4669	0.0276	0.0000	1.1567
Strip Mall	4.8	0.9744	0.0576	0.0000	2.4139
Total		**2.6592**	**0.1572**	**0.0000**	**6.5880**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	2.3	0.4669	0.0276	0.0000	1.1567
Condo/Townhouse	3.7	0.7511	0.0444	0.0000	1.8607
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.3	0.4669	0.0276	0.0000	1.1567
Strip Mall	4.8	0.9744	0.0576	0.0000	2.4139
Total		**2.6592**	**0.1572**	**0.0000**	**6.5880**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

COCU-15, Canyon Crossing, Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	16.92	1000sqft	0.00	16,922.00	0
Other Non-Asphalt Surfaces	38.00		0.87	38,000.00	0
Parking Lot	2.61	1000sqft	0.06	2,614.00	0
Apartments Low Rise	5.00	Dwelling Unit	0.00	7,851.00	14
Condo/Townhouse	8.00	Dwelling Unit	0.23	19,830.00	23
Single Family Housing	5.00	Dwelling Unit	0.30	13,170.00	14
Strip Mall	4.54	1000sqft	0.11	4,536.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	10.85	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See assumptions

Construction Phase - See assumptions

Off-road Equipment -

Off-road Equipment - Hauls not applicable

Off-road Equipment -

Off-road Equipment - See assumptions, based on similar projects

Off-road Equipment - Hauls not applicable

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - See Assumptions

Off-road Equipment -

Off-road Equipment - Haul not applicable

Off-road Equipment -

Off-road Equipment - Haul not applicable

Off-road Equipment - See Assumptions - based on similar project mix

Trips and VMT - See Assumptions

Demolition -

Grading -

Architectural Coating - See Assumptions

Woodstoves - BAAQMD Regulation 6, Rule 3, Wood-Burning Devices, prohobits installation of new wood-burning devices

Energy Use -

Water And Wastewater - 100% Tertiary treated wastewater

Solid Waste - See Assumptions

Construction Off-road Equipment Mitigation - See Assumptions

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	3,452.00	1,172.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	25.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	25.00
tblArchitecturalCoating	EF_Parking	150.00	25.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	25.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	25.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	2.00	16.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	200.00	151.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	200.00	11.00
tblFireplaces	NumberGas	0.75	0.00
tblFireplaces	NumberGas	1.20	8.00
tblFireplaces	NumberGas	1.25	5.00
tblFireplaces	NumberNoFireplace	0.20	5.00
tblFireplaces	NumberNoFireplace	0.32	0.00
tblFireplaces	NumberNoFireplace	0.40	0.00
tblFireplaces	NumberWood	0.85	0.00
tblFireplaces	NumberWood	1.36	0.00
tblFireplaces	NumberWood	2.15	0.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	8,100.00
tblLandUse	LandUseSquareFeet	16,920.00	16,922.00
tblLandUse	LandUseSquareFeet	2,610.00	2,614.00
tblLandUse	LandUseSquareFeet	5,000.00	7,851.00
tblLandUse	LandUseSquareFeet	8,000.00	19,830.00
tblLandUse	LandUseSquareFeet	9,000.00	13,170.00
tblLandUse	LandUseSquareFeet	4,540.00	4,536.00
tblLandUse	LotAcreage	0.39	0.00

tblLandUse	LotAcreage	0.31	0.00
tblLandUse	LotAcreage	0.50	0.23
tblLandUse	LotAcreage	1.62	0.30
tblLandUse	LotAcreage	0.10	0.11
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	10.85
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblSolidWaste	SolidWasteGenerationRate	5.88	3.70
tblTripsAndVMT	HaulingTripNumber	160.00	646.00
tblTripsAndVMT	HaulingTripNumber	29.00	118.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	MHDT

tblTripsAndVMT	HaulingVehicleClass	HHDT	MHDT
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	12.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	37.00	18.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
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tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
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tblWoodstoves	NumberCatalytic	0.10	0.00
tblWoodstoves	NumberCatalytic	0.16	0.00
tblWoodstoves	NumberCatalytic	0.20	0.00
tblWoodstoves	NumberNoncatalytic	0.10	0.00
tblWoodstoves	NumberNoncatalytic	0.16	0.00

tblWoodstoves	NumberNoncatalytic	0.20	0.00

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	0.1324	1.4468	0.9877	2.7900e-003	0.1348	0.0562	0.1910	0.0513	0.0530	0.1043	0.0000	252.1871	252.1871	0.0382	0.0000	253.1409
2021	0.1118	0.3614	0.3644	7.1000e-004	0.0113	0.0174	0.0288	3.0600e-003	0.0166	0.0197	0.0000	62.2691	62.2691	0.0102	0.0000	62.5245
Maximum	**0.1324**	**1.4468**	**0.9877**	**2.7900e-003**	**0.1348**	**0.0562**	**0.1910**	**0.0513**	**0.0530**	**0.1043**	**0.0000**	**252.1871**	**252.1871**	**0.0382**	**0.0000**	**253.1409**

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	0.1324	1.4468	0.9877	2.7900e-003	0.0790	0.0562	0.1352	0.0280	0.0530	0.0809	0.0000	252.1869	252.1869	0.0382	0.0000	253.1407
2021	0.1118	0.3614	0.3644	7.1000e-004	0.0105	0.0174	0.0279	2.8500e-003	0.0166	0.0195	0.0000	62.2690	62.2690	0.0102	0.0000	62.5245
Maximum	**0.1324**	**1.4468**	**0.9877**	**2.7900e-003**	**0.0790**	**0.0562**	**0.1352**	**0.0280**	**0.0530**	**0.0809**	**0.0000**	**252.1869**	**252.1869**	**0.0382**	**0.0000**	**253.1407**

	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**	**38.74**	**0.00**	**25.76**	**43.31**	**0.00**	**18.99**	**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)**
1	**6-1-2020**	**8-31-2020**	1.1255	1.1255
2	**9-1-2020**	**11-30-2020**	0.4278	0.4278
3	**12-1-2020**	**2-28-2021**	0.4976	0.4976
4	**3-1-2021**	**5-31-2021**	0.1230	0.1230
		Highest	1.1255	1.1255

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition Equipment	Demolition	6/1/2020	6/16/2020	5	12	
2	Building Demolition Haul	Demolition	6/1/2020	6/15/2020	5	11	
3	Asphalt Demolition Haul	Demolition	6/15/2020	6/16/2020	5	2	
4	Utility Installation	Trenching	6/16/2020	8/7/2020	5	39	
5	Site Preparation	Site Preparation	6/17/2020	7/8/2020	5	16	
6	Site Preperation Haul	Site Preparation	7/1/2020	7/8/2020	5	6	
7	Rough Grading	Grading	7/9/2020	7/15/2020	5	5	
8	Rough Grading Haul	Grading	7/9/2020	7/15/2020	5	5	
9	Fine Grading	Grading	8/8/2020	8/15/2020	5	5	
10	Building Construction	Building Construction	8/16/2020	3/15/2021	5	151	
11	Asphalt Paving	Paving	2/17/2021	3/3/2021	5	11	
12	Architectural Coating	Architectural Coating	2/17/2021	3/3/2021	5	11	
13	Finish/Landscaping	Building Construction	3/4/2021	3/18/2021	5	11	

Acres of Grading (Site Preparation Phase): 8

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.93

Residential Indoor: 82,723; Residential Outdoor: 27,574; Non-Residential Indoor: 6,804; Non-Residential Outdoor: 2,268; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition Equipment	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition Equipment	Rubber Tired Dozers	1	8.00	247	0.40
Demolition Equipment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Demolition Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Building Demolition Haul	Rubber Tired Dozers	0	8.00	247	0.40

Building Demolition Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Demolition Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Utility Installation	Bore/Drill Rigs	1	8.00	221	0.50
Utility Installation	Excavators	2	8.00	158	0.38
Utility Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preperation Haul	Graders	0	8.00	187	0.41
Site Preperation Haul	Rubber Tired Dozers	0	7.00	247	0.40
Site Preperation Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading	Graders	1	6.00	187	0.41
Rough Grading	Rubber Tired Dozers	1	6.00	247	0.40
Rough Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Rough Grading Haul	Graders	0	6.00	187	0.41
Rough Grading Haul	Rubber Tired Dozers	0	6.00	247	0.40
Rough Grading Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Fine Grading	Graders	1	6.00	187	0.41
Fine Grading	Rubber Tired Dozers	1	6.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Asphalt Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Asphalt Paving	Pavers	1	6.00	130	0.42
Asphalt Paving	Paving Equipment	1	8.00	132	0.36
Asphalt Paving	Rollers	1	7.00	80	0.38

Asphalt Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Finish/Landscaping	Cranes	0	6.00	231	0.29
Finish/Landscaping	Forklifts	0	6.00	89	0.20
Finish/Landscaping	Generator Sets	0	8.00	84	0.74
Finish/Landscaping	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Finish/Landscaping	Welders	0	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 Equipment	5	13.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Demolition Haul	0	0.00	0.00	646.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	MHDT
Asphalt Demolition Haul	0	0.00	0.00	118.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	MHDT
Utility Installation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preperation Haul	0	0.00	0.00	750.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	3	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Haul	0	0.00	0.00	1,013.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	3	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	37.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish/Landscaping	3	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition Equipment - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0128	0.1257	0.0879	1.4000e-004		6.9100e-003	6.9100e-003		6.4600e-003	6.4600e-003	0.0000	12.6406	12.6406	3.2500e-003	0.0000	12.7218
Total	**0.0128**	**0.1257**	**0.0879**	**1.4000e-004**	**0.0000**	**6.9100e-003**	**6.9100e-003**	**0.0000**	**6.4600e-003**	**6.4600e-003**	**0.0000**	**12.6406**	**12.6406**	**3.2500e-003**	**0.0000**	**12.7218**

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	1.0000e-004	2.7300e-003	7.3000e-004	1.0000e-005	1.6000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.6275	0.6275	3.0000e-005	0.0000	0.6282
Worker	2.6000e-004	1.9000e-004	1.9500e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5305	0.5305	1.0000e-005	0.0000	0.5308
Total	**3.6000e-004**	**2.9200e-003**	**2.6800e-003**	**2.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**1.1580**	**1.1580**	**4.0000e-005**	**0.0000**	**1.1590**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0128	0.1257	0.0879	1.4000e-004		6.9100e-003	6.9100e-003		6.4600e-003	6.4600e-003	0.0000	12.6406	12.6406	3.2500e-003	0.0000	12.7218
Total	**0.0128**	**0.1257**	**0.0879**	**1.4000e-004**	**0.0000**	**6.9100e-003**	**6.9100e-003**	**0.0000**	**6.4600e-003**	**6.4600e-003**	**0.0000**	**12.6406**	**12.6406**	**3.2500e-003**	**0.0000**	**12.7218**

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	1.0000e-004	2.7300e-003	7.3000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.6275	0.6275	3.0000e-005	0.0000	0.6282
Worker	2.6000e-004	1.9000e-004	1.9500e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5305	0.5305	1.0000e-005	0.0000	0.5308
Total	**3.6000e-004**	**2.9200e-003**	**2.6800e-003**	**2.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**1.1580**	**1.1580**	**4.0000e-005**	**0.0000**	**1.1590**

3.3 Building Demolition Haul - 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					0.0173	0.0000	0.0173	2.6200e-003	0.0000	2.6200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0173**	**0.0000**	**0.0173**	**2.6200e-003**	**0.0000**	**2.6200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.5800e-003	0.0410	0.0157	1.7000e-004	6.1400e-003	6.5000e-004	6.7900e-003	1.8500e-003	6.3000e-004	2.4700e-003	0.0000	15.8460	15.8460	1.9000e-004	0.0000	15.8508
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	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
Total	**2.5800e-003**	**0.0410**	**0.0157**	**1.7000e-004**	**6.1400e-003**	**6.5000e-004**	**6.7900e-003**	**1.8500e-003**	**6.3000e-004**	**2.4700e-003**	**0.0000**	**15.8460**	**15.8460**	**1.9000e-004**	**0.0000**	**15.8508**

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					7.3900e-003	0.0000	7.3900e-003	1.1200e-003	0.0000	1.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.3900e-003**	**0.0000**	**7.3900e-003**	**1.1200e-003**	**0.0000**	**1.1200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.5800e-003	0.0410	0.0157	1.7000e-004	5.7700e-003	6.5000e-004	6.4200e-003	1.7600e-003	6.3000e-004	2.3800e-003	0.0000	15.8460	15.8460	1.9000e-004	0.0000	15.8508
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	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
Total	**2.5800e-003**	**0.0410**	**0.0157**	**1.7000e-004**	**5.7700e-003**	**6.5000e-004**	**6.4200e-003**	**1.7600e-003**	**6.3000e-004**	**2.3800e-003**	**0.0000**	**15.8460**	**15.8460**	**1.9000e-004**	**0.0000**	**15.8508**

3.4 Asphalt Demolition Haul - 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					3.1500e-003	0.0000	3.1500e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.1500e-003**	**0.0000**	**3.1500e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.7000e-004	7.4900e-003	2.8700e-003	3.0000e-005	1.1200e-003	1.2000e-004	1.2400e-003	3.4000e-004	1.1000e-004	4.5000e-004	0.0000	2.8945	2.8945	3.0000e-005	0.0000	2.8953
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	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
Total	**4.7000e-004**	**7.4900e-003**	**2.8700e-003**	**3.0000e-005**	**1.1200e-003**	**1.2000e-004**	**1.2400e-003**	**3.4000e-004**	**1.1000e-004**	**4.5000e-004**	**0.0000**	**2.8945**	**2.8945**	**3.0000e-005**	**0.0000**	**2.8953**

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					1.3400e-003	0.0000	1.3400e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.3400e-003**	**0.0000**	**1.3400e-003**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.7000e-004	7.4900e-003	2.8700e-003	3.0000e-005	1.0500e-003	1.2000e-004	1.1700e-003	3.2000e-004	1.1000e-004	4.4000e-004	0.0000	2.8945	2.8945	3.0000e-005	0.0000	2.8953
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	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
Total	**4.7000e-004**	**7.4900e-003**	**2.8700e-003**	**3.0000e-005**	**1.0500e-003**	**1.2000e-004**	**1.1700e-003**	**3.2000e-004**	**1.1000e-004**	**4.4000e-004**	**0.0000**	**2.8945**	**2.8945**	**3.0000e-005**	**0.0000**	**2.8953**

3.5 Utility Installation - 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	0.0191	0.2038	0.2125	4.5000e-004		9.1300e-003	9.1300e-003		8.4000e-003	8.4000e-003	0.0000	39.1095	39.1095	0.0127	0.0000	39.4257
Total	**0.0191**	**0.2038**	**0.2125**	**4.5000e-004**		**9.1300e-003**	**9.1300e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**39.1095**	**39.1095**	**0.0127**	**0.0000**	**39.4257**

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	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
Total	**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**

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	0.0191	0.2038	0.2125	4.5000e-004		9.1300e-003	9.1300e-003		8.4000e-003	8.4000e-003	0.0000	39.1095	39.1095	0.0127	0.0000	39.4257
Total	**0.0191**	**0.2038**	**0.2125**	**4.5000e-004**		**9.1300e-003**	**9.1300e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**39.1095**	**39.1095**	**0.0127**	**0.0000**	**39.4257**

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	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
Total	**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**

3.6 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					0.0464	0.0000	0.0464	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0130	0.1468	0.0617	1.4000e-004		6.5700e-003	6.5700e-003		6.0400e-003	6.0400e-003	0.0000	12.1012	12.1012	3.9100e-003	0.0000	12.1991
Total	**0.0130**	**0.1468**	**0.0617**	**1.4000e-004**	**0.0464**	**6.5700e-003**	**0.0530**	**0.0236**	**6.0400e-003**	**0.0297**	**0.0000**	**12.1012**	**12.1012**	**3.9100e-003**	**0.0000**	**12.1991**

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	1.3000e-004	3.6400e-003	9.7000e-004	1.0000e-005	2.1000e-004	2.0000e-005	2.3000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.8366	0.8366	4.0000e-005	0.0000	0.8376
Worker	2.1000e-004	1.5000e-004	1.6000e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4353	0.4353	1.0000e-005	0.0000	0.4356
Total	**3.4000e-004**	**3.7900e-003**	**2.5700e-003**	**1.0000e-005**	**7.2000e-004**	**2.0000e-005**	**7.4000e-004**	**1.9000e-004**	**2.0000e-005**	**2.2000e-004**	**0.0000**	**1.2719**	**1.2719**	**5.0000e-005**	**0.0000**	**1.2731**

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					0.0198	0.0000	0.0198	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0130	0.1468	0.0617	1.4000e-004		6.5700e-003	6.5700e-003		6.0400e-003	6.0400e-003	0.0000	12.1012	12.1012	3.9100e-003	0.0000	12.1990
Total	**0.0130**	**0.1468**	**0.0617**	**1.4000e-004**	**0.0198**	**6.5700e-003**	**0.0264**	**0.0101**	**6.0400e-003**	**0.0161**	**0.0000**	**12.1012**	**12.1012**	**3.9100e-003**	**0.0000**	**12.1990**

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	1.3000e-004	3.6400e-003	9.7000e-004	1.0000e-005	2.0000e-004	2.0000e-005	2.2000e-004	6.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.8366	0.8366	4.0000e-005	0.0000	0.8376
Worker	2.1000e-004	1.5000e-004	1.6000e-003	0.0000	4.7000e-004	0.0000	4.7000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4353	0.4353	1.0000e-005	0.0000	0.4356
Total	**3.4000e-004**	**3.7900e-003**	**2.5700e-003**	**1.0000e-005**	**6.7000e-004**	**2.0000e-005**	**6.9000e-004**	**1.9000e-004**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**1.2719**	**1.2719**	**5.0000e-005**	**0.0000**	**1.2731**

3.7 Site Preperation Haul - 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					3.4000e-004	0.0000	3.4000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.4000e-004**	**0.0000**	**3.4000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.1200e-003	0.1088	0.0223	3.0000e-004	6.3600e-003	3.5000e-004	6.7100e-003	1.7500e-003	3.4000e-004	2.0900e-003	0.0000	28.6016	28.6016	1.3100e-003	0.0000	28.6343
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	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
Total	**3.1200e-003**	**0.1088**	**0.0223**	**3.0000e-004**	**6.3600e-003**	**3.5000e-004**	**6.7100e-003**	**1.7500e-003**	**3.4000e-004**	**2.0900e-003**	**0.0000**	**28.6016**	**28.6016**	**1.3100e-003**	**0.0000**	**28.6343**

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					1.5000e-004	0.0000	1.5000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.1200e-003	0.1088	0.0223	3.0000e-004	5.9300e-003	3.5000e-004	6.2800e-003	1.6400e-003	3.4000e-004	1.9800e-003	0.0000	28.6016	28.6016	1.3100e-003	0.0000	28.6343
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	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
Total	**3.1200e-003**	**0.1088**	**0.0223**	**3.0000e-004**	**5.9300e-003**	**3.5000e-004**	**6.2800e-003**	**1.6400e-003**	**3.4000e-004**	**1.9800e-003**	**0.0000**	**28.6016**	**28.6016**	**1.3100e-003**	**0.0000**	**28.6343**

3.8 Rough 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					0.0123	0.0000	0.0123	6.3100e-003	0.0000	6.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3700e-003	0.0377	0.0161	4.0000e-005		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	3.0974	3.0974	1.0000e-003	0.0000	3.1224
Total	**3.3700e-003**	**0.0377**	**0.0161**	**4.0000e-005**	**0.0123**	**1.7100e-003**	**0.0140**	**6.3100e-003**	**1.5700e-003**	**7.8800e-003**	**0.0000**	**3.0974**	**3.0974**	**1.0000e-003**	**0.0000**	**3.1224**

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	4.0000e-005	1.1400e-003	3.0000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2614	0.2614	1.0000e-005	0.0000	0.2617
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**1.1000e-004**	**1.1900e-003**	**8.0000e-004**	**0.0000**	**2.3000e-004**	**1.0000e-005**	**2.3000e-004**	**6.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.3975**	**0.3975**	**1.0000e-005**	**0.0000**	**0.3979**

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					5.2500e-003	0.0000	5.2500e-003	2.7000e-003	0.0000	2.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3700e-003	0.0377	0.0161	4.0000e-005		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	3.0974	3.0974	1.0000e-003	0.0000	3.1224
Total	**3.3700e-003**	**0.0377**	**0.0161**	**4.0000e-005**	**5.2500e-003**	**1.7100e-003**	**6.9600e-003**	**2.7000e-003**	**1.5700e-003**	**4.2700e-003**	**0.0000**	**3.0974**	**3.0974**	**1.0000e-003**	**0.0000**	**3.1224**

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	4.0000e-005	1.1400e-003	3.0000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2614	0.2614	1.0000e-005	0.0000	0.2617
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**1.1000e-004**	**1.1900e-003**	**8.0000e-004**	**0.0000**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**6.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.3975**	**0.3975**	**1.0000e-005**	**0.0000**	**0.3979**

3.9 Rough Grading Haul - 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					4.6000e-004	0.0000	4.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.6000e-004**	**0.0000**	**4.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.2100e-003	0.1470	0.0301	4.0000e-004	8.5900e-003	4.8000e-004	9.0600e-003	2.3600e-003	4.6000e-004	2.8200e-003	0.0000	38.6312	38.6312	1.7700e-003	0.0000	38.6753
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	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
Total	**4.2100e-003**	**0.1470**	**0.0301**	**4.0000e-004**	**8.5900e-003**	**4.8000e-004**	**9.0600e-003**	**2.3600e-003**	**4.6000e-004**	**2.8200e-003**	**0.0000**	**38.6312**	**38.6312**	**1.7700e-003**	**0.0000**	**38.6753**

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					2.0000e-004	0.0000	2.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.2100e-003	0.1470	0.0301	4.0000e-004	8.0100e-003	4.8000e-004	8.4800e-003	2.2200e-003	4.6000e-004	2.6800e-003	0.0000	38.6312	38.6312	1.7700e-003	0.0000	38.6753
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	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
Total	**4.2100e-003**	**0.1470**	**0.0301**	**4.0000e-004**	**8.0100e-003**	**4.8000e-004**	**8.4800e-003**	**2.2200e-003**	**4.6000e-004**	**2.6800e-003**	**0.0000**	**38.6312**	**38.6312**	**1.7700e-003**	**0.0000**	**38.6753**

3.10 Fine 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					0.0123	0.0000	0.0123	6.3100e-003	0.0000	6.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3700e-003	0.0377	0.0161	4.0000e-005		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	3.0974	3.0974	1.0000e-003	0.0000	3.1224
Total	**3.3700e-003**	**0.0377**	**0.0161**	**4.0000e-005**	**0.0123**	**1.7100e-003**	**0.0140**	**6.3100e-003**	**1.5700e-003**	**7.8800e-003**	**0.0000**	**3.0974**	**3.0974**	**1.0000e-003**	**0.0000**	**3.1224**

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	4.0000e-005	1.1400e-003	3.0000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2614	0.2614	1.0000e-005	0.0000	0.2617
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**1.1000e-004**	**1.1900e-003**	**8.0000e-004**	**0.0000**	**2.3000e-004**	**1.0000e-005**	**2.3000e-004**	**6.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.3975**	**0.3975**	**1.0000e-005**	**0.0000**	**0.3979**

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					5.2500e-003	0.0000	5.2500e-003	2.7000e-003	0.0000	2.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3700e-003	0.0377	0.0161	4.0000e-005		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	3.0974	3.0974	1.0000e-003	0.0000	3.1224
Total	**3.3700e-003**	**0.0377**	**0.0161**	**4.0000e-005**	**5.2500e-003**	**1.7100e-003**	**6.9600e-003**	**2.7000e-003**	**1.5700e-003**	**4.2700e-003**	**0.0000**	**3.0974**	**3.0974**	**1.0000e-003**	**0.0000**	**3.1224**

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	4.0000e-005	1.1400e-003	3.0000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2614	0.2614	1.0000e-005	0.0000	0.2617
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**1.1000e-004**	**1.1900e-003**	**8.0000e-004**	**0.0000**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**6.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.3975**	**0.3975**	**1.0000e-005**	**0.0000**	**0.3979**

3.11 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	0.0610	0.5097	0.4517	7.7000e-004		0.0281	0.0281		0.0269	0.0269	0.0000	64.9563	64.9563	0.0119	0.0000	65.2538
Total	**0.0610**	**0.5097**	**0.4517**	**7.7000e-004**		**0.0281**	**0.0281**		**0.0269**	**0.0269**	**0.0000**	**64.9563**	**64.9563**	**0.0119**	**0.0000**	**65.2538**

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	2.3500e-003	0.0676	0.0180	1.6000e-004	3.9100e-003	3.3000e-004	4.2400e-003	1.1300e-003	3.2000e-004	1.4500e-003	0.0000	15.5297	15.5297	7.1000e-004	0.0000	15.5475
Worker	6.0800e-003	4.3700e-003	0.0458	1.4000e-004	0.0145	9.0000e-005	0.0146	3.8600e-003	9.0000e-005	3.9500e-003	0.0000	12.4569	12.4569	3.1000e-004	0.0000	12.4646
Total	**8.4300e-003**	**0.0720**	**0.0639**	**3.0000e-004**	**0.0184**	**4.2000e-004**	**0.0189**	**4.9900e-003**	**4.1000e-004**	**5.4000e-003**	**0.0000**	**27.9866**	**27.9866**	**1.0200e-003**	**0.0000**	**28.0121**

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	0.0610	0.5097	0.4517	7.7000e-004		0.0281	0.0281		0.0269	0.0269	0.0000	64.9562	64.9562	0.0119	0.0000	65.2537
Total	**0.0610**	**0.5097**	**0.4517**	**7.7000e-004**		**0.0281**	**0.0281**		**0.0269**	**0.0269**	**0.0000**	**64.9562**	**64.9562**	**0.0119**	**0.0000**	**65.2537**

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	2.3500e-003	0.0676	0.0180	1.6000e-004	3.6600e-003	3.3000e-004	3.9900e-003	1.0700e-003	3.2000e-004	1.3900e-003	0.0000	15.5297	15.5297	7.1000e-004	0.0000	15.5475
Worker	6.0800e-003	4.3700e-003	0.0458	1.4000e-004	0.0134	9.0000e-005	0.0135	3.5900e-003	9.0000e-005	3.6700e-003	0.0000	12.4569	12.4569	3.1000e-004	0.0000	12.4646
Total	**8.4300e-003**	**0.0720**	**0.0639**	**3.0000e-004**	**0.0171**	**4.2000e-004**	**0.0175**	**4.6600e-003**	**4.1000e-004**	**5.0600e-003**	**0.0000**	**27.9866**	**27.9866**	**1.0200e-003**	**0.0000**	**28.0121**

3.11 Building Construction - 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					
Off-Road	0.0287	0.2446	0.2331	4.0000e-004		0.0127	0.0127		0.0122	0.0122	0.0000	34.1202	34.1202	6.0900e-003	0.0000	34.2724
Total	**0.0287**	**0.2446**	**0.2331**	**4.0000e-004**		**0.0127**	**0.0127**		**0.0122**	**0.0122**	**0.0000**	**34.1202**	**34.1202**	**6.0900e-003**	**0.0000**	**34.2724**

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	1.0200e-003	0.0321	8.5300e-003	8.0000e-005	2.0500e-003	7.0000e-005	2.1200e-003	5.9000e-004	7.0000e-005	6.6000e-004	0.0000	8.0817	8.0817	3.5000e-004	0.0000	8.0905
Worker	2.9600e-003	2.0500e-003	0.0220	7.0000e-005	7.6300e-003	5.0000e-005	7.6800e-003	2.0300e-003	4.0000e-005	2.0700e-003	0.0000	6.3159	6.3159	1.4000e-004	0.0000	6.3195
Total	**3.9800e-003**	**0.0341**	**0.0305**	**1.5000e-004**	**9.6800e-003**	**1.2000e-004**	**9.8000e-003**	**2.6200e-003**	**1.1000e-004**	**2.7300e-003**	**0.0000**	**14.3977**	**14.3977**	**4.9000e-004**	**0.0000**	**14.4100**

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	0.0287	0.2446	0.2331	4.0000e-004		0.0127	0.0127		0.0122	0.0122	0.0000	34.1202	34.1202	6.0900e-003	0.0000	34.2723
Total	**0.0287**	**0.2446**	**0.2331**	**4.0000e-004**		**0.0127**	**0.0127**		**0.0122**	**0.0122**	**0.0000**	**34.1202**	**34.1202**	**6.0900e-003**	**0.0000**	**34.2723**

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	1.0200e-003	0.0321	8.5300e-003	8.0000e-005	1.9200e-003	7.0000e-005	1.9900e-003	5.6000e-004	7.0000e-005	6.3000e-004	0.0000	8.0817	8.0817	3.5000e-004	0.0000	8.0905
Worker	2.9600e-003	2.0500e-003	0.0220	7.0000e-005	7.0400e-003	5.0000e-005	7.0800e-003	1.8800e-003	4.0000e-005	1.9300e-003	0.0000	6.3159	6.3159	1.4000e-004	0.0000	6.3195
Total	**3.9800e-003**	**0.0341**	**0.0305**	**1.5000e-004**	**8.9600e-003**	**1.2000e-004**	**9.0700e-003**	**2.4400e-003**	**1.1000e-004**	**2.5600e-003**	**0.0000**	**14.3977**	**14.3977**	**4.9000e-004**	**0.0000**	**14.4100**

3.12 Asphalt Paving - 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					
Off-Road	4.2600e-003	0.0426	0.0487	7.0000e-005		2.2800e-003	2.2800e-003		2.1100e-003	2.1100e-003	0.0000	6.4707	6.4707	2.0500e-003	0.0000	6.5220
Paving	8.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3400e-003**	**0.0426**	**0.0487**	**7.0000e-005**		**2.2800e-003**	**2.2800e-003**		**2.1100e-003**	**2.1100e-003**	**0.0000**	**6.4707**	**6.4707**	**2.0500e-003**	**0.0000**	**6.5220**

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	2.2000e-004	1.5000e-004	1.6400e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4694	0.4694	1.0000e-005	0.0000	0.4697
Total	**2.2000e-004**	**1.5000e-004**	**1.6400e-003**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4694**	**0.4694**	**1.0000e-005**	**0.0000**	**0.4697**

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	4.2600e-003	0.0426	0.0487	7.0000e-005		2.2800e-003	2.2800e-003		2.1100e-003	2.1100e-003	0.0000	6.4707	6.4707	2.0500e-003	0.0000	6.5220
Paving	8.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3400e-003**	**0.0426**	**0.0487**	**7.0000e-005**		**2.2800e-003**	**2.2800e-003**		**2.1100e-003**	**2.1100e-003**	**0.0000**	**6.4707**	**6.4707**	**2.0500e-003**	**0.0000**	**6.5220**

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	2.2000e-004	1.5000e-004	1.6400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4694	0.4694	1.0000e-005	0.0000	0.4697
Total	**2.2000e-004**	**1.5000e-004**	**1.6400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4694**	**0.4694**	**1.0000e-005**	**0.0000**	**0.4697**

3.13 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	0.0698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.4000e-003	0.0100	2.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	1.4043	1.4043	1.0000e-004	0.0000	1.4067
Total	**0.0710**	**8.4000e-003**	**0.0100**	**2.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.0000e-004**	**0.0000**	**1.4067**

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	1.2000e-004	8.0000e-005	8.8000e-004	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2528	0.2528	1.0000e-005	0.0000	0.2529
Total	**1.2000e-004**	**8.0000e-005**	**8.8000e-004**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2528**	**0.2528**	**1.0000e-005**	**0.0000**	**0.2529**

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	0.0698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.4000e-003	0.0100	2.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	1.4043	1.4043	1.0000e-004	0.0000	1.4067
Total	**0.0710**	**8.4000e-003**	**0.0100**	**2.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.0000e-004**	**0.0000**	**1.4067**

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	1.2000e-004	8.0000e-005	8.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2528	0.2528	1.0000e-005	0.0000	0.2529
Total	**1.2000e-004**	**8.0000e-005**	**8.8000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2528**	**0.2528**	**1.0000e-005**	**0.0000**	**0.2529**

3.14 Finish/Landscaping - 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					
Off-Road	3.0900e-003	0.0313	0.0373	5.0000e-005		1.8400e-003	1.8400e-003		1.7000e-003	1.7000e-003	0.0000	4.5040	4.5040	1.4600e-003	0.0000	4.5405
Total	**3.0900e-003**	**0.0313**	**0.0373**	**5.0000e-005**		**1.8400e-003**	**1.8400e-003**		**1.7000e-003**	**1.7000e-003**	**0.0000**	**4.5040**	**4.5040**	**1.4600e-003**	**0.0000**	**4.5405**

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-004	2.1000e-004	2.2600e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6500	0.6500	1.0000e-005	0.0000	0.6504
Total	**3.0000e-004**	**2.1000e-004**	**2.2600e-003**	**1.0000e-005**	**7.9000e-004**	**0.0000**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6500**	**0.6500**	**1.0000e-005**	**0.0000**	**0.6504**

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	3.0900e-003	0.0313	0.0373	5.0000e-005		1.8400e-003	1.8400e-003		1.7000e-003	1.7000e-003	0.0000	4.5040	4.5040	1.4600e-003	0.0000	4.5405
Total	**3.0900e-003**	**0.0313**	**0.0373**	**5.0000e-005**		**1.8400e-003**	**1.8400e-003**		**1.7000e-003**	**1.7000e-003**	**0.0000**	**4.5040**	**4.5040**	**1.4600e-003**	**0.0000**	**4.5405**

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-004	2.1000e-004	2.2600e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6500	0.6500	1.0000e-005	0.0000	0.6504
Total	**3.0000e-004**	**2.1000e-004**	**2.2600e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6500**	**0.6500**	**1.0000e-005**	**0.0000**	**0.6504**

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

Canyon Crossing Mixed Use Existing Conditions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	41.25	1000sqft	0.95	41,250.00	0
Other Non-Asphalt Surfaces	3.84	1000sqft	0.09	3,840.00	0
Parking Lot	10.07	1000sqft	0.23	10,070.00	0
Single Family Housing	1.00	Dwelling Unit	0.03	1,100.00	3
Strip Mall	12.13	1000sqft	0.28	12,125.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	10.84	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Carbon intensity factors for Silicon Valley Clean Energy

Land Use - see assumptions file for lot acreage calculations

Construction Phase -

Vehicle Trips - trip rates provided by TJKM

Woodstoves - assuming one gas fire place

Area Coating - see assumptions file for calculations, only accounting for space from parking lot

Energy Use -

Water And Wastewater - assuming 100% aerobic treatment

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	3310	604
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	0.25	1.00
tblFireplaces	NumberNoFireplace	0.08	0.00
tblFireplaces	NumberWood	0.43	0.00
tblLandUse	LandUseSquareFeet	1,800.00	1,100.00
tblLandUse	LandUseSquareFeet	12,130.00	12,125.00
tblLandUse	LotAcreage	0.32	0.03
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	10.84
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	CW_TL	9.50	7.90
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HW_TL	10.80	10.40
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	9.91	6.04
tblVehicleTrips	ST_TR	42.04	44.41
tblVehicleTrips	SU_TR	8.62	5.29
tblVehicleTrips	SU_TR	20.43	38.86
tblVehicleTrips	WD_TR	9.52	5.81
tblVehicleTrips	WD_TR	44.32	42.70
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.04	0.00
tblWoodstoves	NumberNoncatalytic	0.04	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

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	0.0628	2.0000e-004	8.1300e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393
Energy	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.7557	4.7557	8.0000e-005	7.0000e-005	4.7792
Mobile	0.1642	0.7057	2.0293	6.1100e-003	0.5206	6.9500e-003	0.5276	0.1394	6.5400e-003	0.1459	0.0000	557.8815	557.8815	0.0207	0.0000	558.3999
Waste						0.0000	0.0000		0.0000	0.0000	2.8419	0.0000	2.8419	0.1680	0.0000	7.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3409	0.0358	0.3768	1.1700e-003	7.4000e-004	0.6271
Total	**0.2274**	**0.7094**	**2.0396**	**6.1300e-003**	**0.5206**	**7.2800e-003**	**0.5279**	**0.1394**	**6.8700e-003**	**0.1463**	**3.1828**	**562.8113**	**565.9941**	**0.1900**	**8.1000e-004**	**570.9860**

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	0.0628	2.0000e-004	8.1300e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393
Energy	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.7557	4.7557	8.0000e-005	7.0000e-005	4.7792
Mobile	0.1642	0.7057	2.0293	6.1100e-003	0.5206	6.9500e-003	0.5276	0.1394	6.5400e-003	0.1459	0.0000	557.8815	557.8815	0.0207	0.0000	558.3999
Waste						0.0000	0.0000		0.0000	0.0000	2.8419	0.0000	2.8419	0.1680	0.0000	7.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3409	0.0358	0.3768	1.1700e-003	7.4000e-004	0.6271
Total	**0.2274**	**0.7094**	**2.0396**	**6.1300e-003**	**0.5206**	**7.2800e-003**	**0.5279**	**0.1394**	**6.8700e-003**	**0.1463**	**3.1828**	**562.8113**	**565.9941**	**0.1900**	**8.1000e-004**	**570.9860**

	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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.1642	0.7057	2.0293	6.1100e-003	0.5206	6.9500e-003	0.5276	0.1394	6.5400e-003	0.1459	0.0000	557.8815	557.8815	0.0207	0.0000	558.3999
Unmitigated	0.1642	0.7057	2.0293	6.1100e-003	0.5206	6.9500e-003	0.5276	0.1394	6.5400e-003	0.1459	0.0000	557.8815	557.8815	0.0207	0.0000	558.3999

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	5.81	6.04	5.29	14,745	14,745
Strip Mall	517.95	538.69	471.37	1,385,136	1,385,136
Total	523.76	544.73	476.66	1,399,880	1,399,880

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.40	4.80	5.70	31.00	15.00	54.00	100	0	0
Strip Mall	7.90	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Other Non-Asphalt Surfaces	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Parking Lot	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Single Family Housing	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Strip Mall	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812

5.0 Energy Detail

Historical Energy Use: Y

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	0.8092	0.8092	0.0000	0.0000	0.8092
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.8092	0.8092	0.0000	0.0000	0.8092
NaturalGas Mitigated	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9465	3.9465	8.0000e-005	7.0000e-005	3.9700
NaturalGas Unmitigated	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9465	3.9465	8.0000e-005	7.0000e-005	3.9700

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					
Other Asphalt Surfaces	0	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
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
Single Family Housing	38550.3	2.1000e-004	1.7800e-003	7.6000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0572	2.0572	4.0000e-005	4.0000e-005	2.0694
Strip Mall	35405	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8894	1.8894	4.0000e-005	3.0000e-005	1.9006
Total		**4.0000e-004**	**3.5200e-003**	**2.2200e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.9465**	**3.9465**	**8.0000e-005**	**7.0000e-005**	**3.9700**

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					
Other Asphalt Surfaces	0	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
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
Single Family Housing	38550.3	2.1000e-004	1.7800e-003	7.6000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0572	2.0572	4.0000e-005	4.0000e-005	2.0694
Strip Mall	35405	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8894	1.8894	4.0000e-005	3.0000e-005	1.9006
Total		**4.0000e-004**	**3.5200e-003**	**2.2200e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.9465**	**3.9465**	**8.0000e-005**	**7.0000e-005**	**3.9700**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	8861.6	0.0436	0.0000	0.0000	0.0436
Single Family Housing	7181.19	0.0353	0.0000	0.0000	0.0353
Strip Mall	148531	0.7303	0.0000	0.0000	0.7303
Total		**0.8092**	**0.0000**	**0.0000**	**0.8092**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	8861.6	0.0436	0.0000	0.0000	0.0436
Single Family Housing	7181.19	0.0353	0.0000	0.0000	0.0353
Strip Mall	148531	0.7303	0.0000	0.0000	0.7303
Total		**0.8092**	**0.0000**	**0.0000**	**0.8092**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.0628	2.0000e-004	8.1300e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393
Unmitigated	0.0628	2.0000e-004	8.1300e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393

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	7.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	1.1000e-004	5.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1248	0.1248	0.0000	0.0000	0.1256
Landscaping	2.9000e-004	9.0000e-005	8.0900e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0133	0.0133	2.0000e-005	0.0000	0.0137
Total	**0.0628**	**2.0000e-004**	**8.1400e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1382**	**0.1382**	**2.0000e-005**	**0.0000**	**0.1393**

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	7.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	1.1000e-004	5.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1248	0.1248	0.0000	0.0000	0.1256
Landscaping	2.9000e-004	9.0000e-005	8.0900e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0133	0.0133	2.0000e-005	0.0000	0.0137
Total	**0.0628**	**2.0000e-004**	**8.1400e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1382**	**0.1382**	**2.0000e-005**	**0.0000**	**0.1393**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.3768	1.1700e-003	7.4000e-004	0.6271
Unmitigated	0.3768	1.1700e-003	7.4000e-004	0.6271

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.065154 / 0.0410754	0.0255	8.0000e-005	5.0000e-005	0.0424
Strip Mall	0.8985 / 0.550693	0.3513	1.0900e-003	6.9000e-004	0.5846
Total		**0.3768**	**1.1700e-003**	**7.4000e-004**	**0.6271**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.065154 / 0.0410754	0.0255	8.0000e-005	5.0000e-005	0.0424
Strip Mall	0.8985 / 0.550693	0.3513	1.0900e-003	6.9000e-004	0.5846
Total		**0.3768**	**1.1700e-003**	**7.4000e-004**	**0.6271**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8419	0.1680	0.0000	7.0406
Unmitigated	2.8419	0.1680	0.0000	7.0406

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
Strip Mall	12.74	2.5861	0.1528	0.0000	6.4070
Total		**2.8419**	**0.1680**	**0.0000**	**7.0406**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
Strip Mall	12.74	2.5861	0.1528	0.0000	6.4070
Total		**2.8419**	**0.1680**	**0.0000**	**7.0406**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Canyon Crossing Mixed Use Build Out Conditions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	41.25	1000sqft	0.95	41,250.00	0
Other Non-Asphalt Surfaces	3.84	1000sqft	0.09	3,840.00	0
Parking Lot	10.07	1000sqft	0.23	10,070.00	0
Single Family Housing	1.00	Dwelling Unit	0.03	1,100.00	3
Strip Mall	12.13	1000sqft	0.28	12,125.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	10.84	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Carbon intensity factors for Silicon Valley Clean Energy

Land Use - see assumptions file for lot acreage calculations

Construction Phase -

Vehicle Trips - assuming 100% primary trips, trip rates provided by TJKM

Woodstoves - assuming one gas fire place

Area Coating - see assumptions file for calculations, only accounting for space from parking lot

Energy Use -

Water And Wastewater - assuming 100% aerobic treatment

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	3310	604
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	0.25	1.00
tblFireplaces	NumberNoFireplace	0.08	0.00
tblFireplaces	NumberWood	0.43	0.00
tblLandUse	LandUseSquareFeet	1,800.00	1,100.00
tblLandUse	LandUseSquareFeet	12,130.00	12,125.00
tblLandUse	LotAcreage	0.32	0.03
tblProjectCharacteristics	CO2IntensityFactor	0	10.84
tblVehicleTrips	CW_TL	9.50	7.90
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HW_TL	10.80	10.40
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	9.91	6.04
tblVehicleTrips	ST_TR	42.04	44.41
tblVehicleTrips	SU_TR	8.62	5.29
tblVehicleTrips	SU_TR	20.43	38.86
tblVehicleTrips	WD_TR	9.52	5.81
tblVehicleTrips	WD_TR	44.32	42.70
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	0.04	0.00
tblWoodstoves	NumberNoncatalytic	0.04	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

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	0.0628	2.0000e-004	8.1100e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393
Energy	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.7557	4.7557	8.0000e-005	7.0000e-005	4.7792
Mobile	0.1372	0.5932	1.7010	5.7600e-003	0.5206	4.9500e-003	0.5255	0.1394	4.6300e-003	0.1440	0.0000	527.3014	527.3014	0.0179	0.0000	527.7482
Waste						0.0000	0.0000		0.0000	0.0000	2.8419	0.0000	2.8419	0.1680	0.0000	7.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3409	0.0358	0.3768	1.1700e-003	7.4000e-004	0.6271
Total	**0.2004**	**0.5969**	**1.7113**	**5.7800e-003**	**0.5206**	**5.2800e-003**	**0.5258**	**0.1394**	**4.9600e-003**	**0.1443**	**3.1828**	**532.2311**	**535.4139**	**0.1871**	**8.1000e-004**	**540.3344**

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	0.0628	2.0000e-004	8.1100e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393
Energy	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.7557	4.7557	8.0000e-005	7.0000e-005	4.7792
Mobile	0.1372	0.5932	1.7010	5.7600e-003	0.5206	4.9500e-003	0.5255	0.1394	4.6300e-003	0.1440	0.0000	527.3014	527.3014	0.0179	0.0000	527.7482
Waste						0.0000	0.0000		0.0000	0.0000	2.8419	0.0000	2.8419	0.1680	0.0000	7.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3409	0.0358	0.3768	1.1700e-003	7.4000e-004	0.6271
Total	**0.2004**	**0.5969**	**1.7113**	**5.7800e-003**	**0.5206**	**5.2800e-003**	**0.5258**	**0.1394**	**4.9600e-003**	**0.1443**	**3.1828**	**532.2311**	**535.4139**	**0.1871**	**8.1000e-004**	**540.3344**

	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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.1372	0.5932	1.7010	5.7600e-003	0.5206	4.9500e-003	0.5255	0.1394	4.6300e-003	0.1440	0.0000	527.3014	527.3014	0.0179	0.0000	527.7482
Unmitigated	0.1372	0.5932	1.7010	5.7600e-003	0.5206	4.9500e-003	0.5255	0.1394	4.6300e-003	0.1440	0.0000	527.3014	527.3014	0.0179	0.0000	527.7482

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	5.81	6.04	5.29	14,745	14,745
Strip Mall	517.95	538.69	471.37	1,385,136	1,385,136
Total	523.76	544.73	476.66	1,399,880	1,399,880

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.40	4.80	5.70	31.00	15.00	54.00	100	0	0
Strip Mall	7.90	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Other Non-Asphalt Surfaces	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Parking Lot	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Single Family Housing	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Strip Mall	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

5.0 Energy Detail

Historical Energy Use: Y

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	0.8092	0.8092	0.0000	0.0000	0.8092
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.8092	0.8092	0.0000	0.0000	0.8092
NaturalGas Mitigated	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9465	3.9465	8.0000e-005	7.0000e-005	3.9700
NaturalGas Unmitigated	4.0000e-004	3.5100e-003	2.2100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9465	3.9465	8.0000e-005	7.0000e-005	3.9700

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					
Other Asphalt Surfaces	0	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
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
Single Family Housing	38550.3	2.1000e-004	1.7800e-003	7.6000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0572	2.0572	4.0000e-005	4.0000e-005	2.0694
Strip Mall	35405	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8894	1.8894	4.0000e-005	3.0000e-005	1.9006
Total		**4.0000e-004**	**3.5200e-003**	**2.2200e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.9465**	**3.9465**	**8.0000e-005**	**7.0000e-005**	**3.9700**

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					
Other Asphalt Surfaces	0	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
Other Non-Asphalt Surfaces	0	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
Parking Lot	0	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
Single Family Housing	38550.3	2.1000e-004	1.7800e-003	7.6000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0572	2.0572	4.0000e-005	4.0000e-005	2.0694
Strip Mall	35405	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8894	1.8894	4.0000e-005	3.0000e-005	1.9006
Total		**4.0000e-004**	**3.5200e-003**	**2.2200e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.9465**	**3.9465**	**8.0000e-005**	**7.0000e-005**	**3.9700**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	8861.6	0.0436	0.0000	0.0000	0.0436
Single Family Housing	7181.19	0.0353	0.0000	0.0000	0.0353
Strip Mall	148531	0.7303	0.0000	0.0000	0.7303
Total		**0.8092**	**0.0000**	**0.0000**	**0.8092**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	8861.6	0.0436	0.0000	0.0000	0.0436
Single Family Housing	7181.19	0.0353	0.0000	0.0000	0.0353
Strip Mall	148531	0.7303	0.0000	0.0000	0.7303
Total		**0.8092**	**0.0000**	**0.0000**	**0.8092**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.0628	2.0000e-004	8.1100e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393
Unmitigated	0.0628	2.0000e-004	8.1100e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1382	0.1382	2.0000e-005	0.0000	0.1393

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	7.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	1.1000e-004	5.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1248	0.1248	0.0000	0.0000	0.1256
Landscaping	2.8000e-004	9.0000e-005	8.0600e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0133	0.0133	1.0000e-005	0.0000	0.0137
Total	**0.0628**	**2.0000e-004**	**8.1100e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1382**	**0.1382**	**1.0000e-005**	**0.0000**	**0.1393**

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	7.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	1.1000e-004	5.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1248	0.1248	0.0000	0.0000	0.1256
Landscaping	2.8000e-004	9.0000e-005	8.0600e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0133	0.0133	1.0000e-005	0.0000	0.0137
Total	**0.0628**	**2.0000e-004**	**8.1100e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1382**	**0.1382**	**1.0000e-005**	**0.0000**	**0.1393**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.3768	1.1700e-003	7.4000e-004	0.6271
Unmitigated	0.3768	1.1700e-003	7.4000e-004	0.6271

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.065154 / 0.0410754	0.0255	8.0000e-005	5.0000e-005	0.0424
Strip Mall	0.8985 / 0.550693	0.3513	1.0900e-003	6.9000e-004	0.5846
Total		**0.3768**	**1.1700e-003**	**7.4000e-004**	**0.6271**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.065154 / 0.0410754	0.0255	8.0000e-005	5.0000e-005	0.0424
Strip Mall	0.8985 / 0.550693	0.3513	1.0900e-003	6.9000e-004	0.5846
Total		**0.3768**	**1.1700e-003**	**7.4000e-004**	**0.6271**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8419	0.1680	0.0000	7.0406
Unmitigated	2.8419	0.1680	0.0000	7.0406

8.2 Waste by Land Use

Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
Strip Mall	12.74	2.5861	0.1528	0.0000	6.4070
Total		**2.8419**	**0.1680**	**0.0000**	**7.0406**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
Strip Mall	12.74	2.5861	0.1528	0.0000	6.4070
Total		**2.8419**	**0.1680**	**0.0000**	**7.0406**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

APPENDIX B:
HEALTH RISK ASSESSMENT

1. Health Risk Assessment

1.1 CONSTRUCTION HEALTH RISK ASSESSMENT

SCR Enterprises, the project applicant, is proposing the Canyon Crossings Mixed-Use Project (proposed project) that would involve the construction of a commercial and residential development on a 1.57-acre site. The project site is located at 10625 South Foothill Boulevard in the southwest region of the City of Cupertino, Santa Clara County, California. The proposed project would involve demolishing all the existing structures and redeveloping the site with 4,536 square feet of commercial space and up to 18 residential units comprised of a mix of single-family, duplex, and triplex units. All structures would be two stories (30 feet) in height and a one-level of below-grade parking garage would be located under the mixed-use portion of the project. The following provides the background methodology used for the construction health risk assessment for the proposed project.

The latest version of the Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines requires projects to evaluate the impacts of construction activities on sensitive receptors (BAAQMD, 2017). Project construction is anticipated to take place starting at the beginning of June 2020 and be completed by the end of March 2021 (approximately 209 work days). The nearest sensitive receptors to the project site include the adjacent one-story and two-story single-family residences approximately 20 to 50 feet from the site property lines to the north, west, and south. The BAAQMD has developed *Screening Tables for Air Toxics Evaluation During Construction* (2017) that evaluate construction-related health risks associated with residential, commercial, and industrial projects. According to the screening tables, the residences are closer than the distance of 100 meters (328 feet) that would screen out potential health risks and therefore could be potentially impacted from the proposed construction activities. As a result, a site-specific construction health risk assessment (HRA) has been prepared for the proposed project. This HRA considers the health impact to off-site sensitive receptors (children at the nearby residences) from construction emissions at the project site, including diesel equipment exhaust (diesel particulate matter or DPM) and particulate matter less than 2.5 microns ($PM_{2.5}$).

It should be noted that these health impacts are based on conservative (i.e., health protective) assumptions. The United States Environmental Protection Agency (USEPA, 2005) and the Office of Environmental Health Hazard Assessment (OEHHA, 2015) note that conservative assumptions used in a risk assessment are intended to ensure that the estimated risks do not underestimate the actual risks. Therefore, the estimated risks may not necessarily represent actual risks experienced by populations at or near a site. The use of conservative assumptions tends to produce upper-bound estimates of exposure and thus risk.

For residential-based receptors, the following conservative assumptions were used:

- It was assumed that maximum-exposed off-site residential receptors (both children and adults) stood outdoors and are subject to DPM at their residence for 8 hours per day, and approximately 260 construction days per year. In reality, California residents typically will spend on average 2 hours per day outdoors at their residences (USEPA, 2011). This would result in lower exposures to construction related DPM emissions and lower estimated risk values.

- The calculated risk for infants from third trimester to age 2 is multiplied by a factor of 10 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA, 2015).

1.2 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

For this HRA, the BAAQMD significance thresholds were deemed to be appropriate and the thresholds that were used for this project are shown below:

- Excess cancer risk of more than 10 in a million
- Non-cancer hazard index (chronic or acute) greater than 1.0
- Incremental increase in average annual $PM_{2.5}$ concentration of greater than 0.3 μg/m^3

The methodology used in this HRA is consistent with the following BAAQMD and the OEHHA guidance documents:

- BAAQMD, 2017. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
- BAAQMD, 2010. *Screening Tables for Air Toxics Evaluation During Construction*. May 2010.
- BAAQMD, 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. Version 3.0. May 2012.
- OEHHA. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*. February, 2015.

Potential exposures to DPM and $PM_{2.5}$ from proposed project construction were evaluated for off-site sensitive receptors in close proximity to the site. Pollutant concentrations were estimated using an air dispersion model, and excess lifetime cancer risks and chronic non-cancer hazard indexes were calculated. These risks were then compared to the significance thresholds adopted for this HRA.

1.3 CONSTRUCTION EMISSIONS

Construction emissions were calculated as average daily emissions in pounds per day, using the proposed construction schedule and the latest version of California Emissions Estimation Model, known as CalEEMod Version 2016.3.2 (CAPCOA, 2016). DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in pounds (lbs) per day. The $PM_{2.5}$ emissions were taken from the CalEEMod output for exhaust $PM_{2.5}$ also presented in lbs per day.

The project was assumed to take place over 10 months (209 work days) from beginning of June 2020 to March 2021. The average daily emission rates from construction equipment used during the proposed project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction (i.e., 2020 and 2021). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 0.26-mile haul route within 1,000 feet of the project site. The CalEEMod construction emissions output and emission rate calculations are provided in Appendix A of the HRA.

1.4 DISPERSION MODELING

Air quality modeling was performed using the AERMOD atmospheric dispersion model to assess the impact of emitted compounds on sensitive receptors near the project. The model is a steady state Gaussian plume model and is an approved model by BAAQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. The on-site construction emissions for the project were modeled as poly-area sources. The off-site mobile sources were modeled as adjacent line volume sources. The model requires additional input parameters, including chemical emission data and local meteorology. Inputs for the construction emission rates are those described in Section 1.3. Meteorological data obtained from the BAAQMD for the nearest representative meteorological station (Moffett Federal Airfield Airport) with the five latest available years (2009 to 2013) of record were used to represent local weather conditions and prevailing winds.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. To accommodate the model's Cartesian grid format, direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. In addition, digital elevation model (DEM) data for the area were obtained and included in the model runs to account for complex terrain. An emission release height of 4.15 meters was used as representative of the stack exhaust height for off-road construction equipment and diesel truck traffic, and an initial vertical dispersion parameter of 1.93 m was used, per California Air Resources Board (CARB) guidance (2000).

To determine contaminant impacts during construction hours, the model's Season-Hour-Day (HRDOW) scalar option was invoked to predict flagpole-level concentrations (1.5 m for ground-floor receptors) for construction emissions generated between the hours of 7:00 AM and 4:00 PM with a 1-hour lunch break. In addition, a scalar factor was applied to the risk calculations to account for the number of days residents are exposed to construction emissions per year.

A unit emission rate of 1 gram per second was used for all modeling runs. The unit emission rates were proportioned over the poly-area sources for on-site construction emissions and divided between the volume sources for off-site hauling emissions. The maximum modeled concentrations from the output files were then multiplied by the emission rates calculated in Appendix A to obtain the maximum flagpole-level concentrations at the off-site maximum exposed receptors (MER). The off-site MER is the single family residence approximately 20 feet south of the site. The MER location is the receptor location associated with the maximum predicted AERMOD concentrations from the on-site emission source. The calculated on-site emission rates are approximately 3 to 4 orders of magnitude higher than the calculated off-site emission rates (see Appendix A). Therefore, the maximum concentrations associated with the on-site emission sources produce the highest overall ground-level MER concentrations and, consequently, higher calculated health risks.

The air dispersion model output for the emission sources is presented in Appendix B. The model output DPM and $PM_{2.5}$ concentrations from the construction emission sources are provided in Appendix C.

1.5 RISK CHARACTERIZATION

1.5.1 Carcinogenic Chemical Risk

A threshold of ten in a million ($10x10^{-6}$) has been established as a level posing no significant risk for exposures to carcinogens. Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its cancer potency factor (CPF), a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It is an upper-limit estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu g/m^3$) over a lifetime of 70 years.

Recent guidance from OEHHA recommends a refinement to the standard point estimate approach with the use of age-specific breathing rates and age sensitivity factors (ASFs) to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. Therefore, to accommodate the unique exposures associated with the residential receptors, the following dose algorithm was used.

$$\mathrm{Dose}_{\mathrm{AIR,per\ age\ group}} = (\mathrm{C}_{\mathrm{air}} \times \mathrm{EF} \times [\frac{\mathrm{BR}}{\mathrm{BW}}] \times \mathrm{A} \times \mathrm{CF})$$

Where:

$\mathrm{Dose}_{\mathrm{AIR}}$ = dose by inhalation (mg/kg-day), per age group
$\mathrm{C}_{\mathrm{air}}$ = concentration of contaminant in air ($\mu g/m^3$)
EF = exposure frequency (number of days/365 days)
BR/BW = daily breathing rate normalized to body weight (L/kg-day)
A = inhalation absorption factor (default = 1)
CF = conversion factor ($1x10^{-6}$, µg to mg, L to m^3)

The inhalation absorption factor (A) is a unitless factor that is only used if the cancer potency factor included a correction for absorption across the lung. The default value of 1 was used for this assessment. For residential receptors, the exposure frequency (EF) of 0.96 is used to represent 350 days per year to allow for a two week period away from home each year (OEHHA, 2015). The 95th percentile daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASFs), and fraction of time at home (FAH) for the various age groups are provided herein:

Age Groups	BR/BW (L/kg-day)	ED	ASF	FAH
Third trimester	361	0.25	10	0.85
0-2 age group	1,090	2	10	0.85
2-9 age group	861	7	3	0.72
2-16 age group	745	14	3	0.72

16-30 age group	335	14	1	0.73
16-70 age group	290	54	1	0.73

For construction analysis, the exposure duration spans the length of construction (e.g. 209 work days). As the length of construction is equal to 0.83-year, only the third trimester and 0-2 age bins apply to the construction analysis for the off-site residential receptors.

To calculate the overall cancer risk, the risk for each appropriate age group is calculated per the following equation:

$$\text{Cancer Risk}_{\text{AIR}} = \text{Dose}_{\text{AIR}} \times \text{CPF} \times \text{ASF} \times \text{FAH} \times \frac{\text{ED}}{AT}$$

Where:

Dose_{AIR} = dose by inhalation (mg/kg-day), per age group
CPF = cancer potency factor, chemical-specific $(\text{mg/kg-day})^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (70 years)

The CPFs used in the assessment were obtained from OEHHA guidance. The excess lifetime cancer risks during the construction period to the maximally exposed resident were calculated based on the factors provided above. The cancer risks for each age group are summed to estimate the total cancer risk for each toxic chemical species. For purposes of this assessment and as stated, the calculated residential cancer risks associated with construction activities are based on the 3rd trimester and 0-2 year old age groups. The final step converts the cancer risk in scientific notation to a whole number that expresses the cancer risk in "chances per million" by multiplying the cancer risk by a factor of $1\text{x}10^6$ (i.e. 1 million).

The calculated results are provided in Appendix C.

1.5.2 Non-Carcinogenic Hazards

An evaluation was also conducted of the potential non-cancer effects of chronic chemical exposures. Adverse health effects are evaluated by comparing the annual receptor level (flagpole) concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by OEHHA were considered in the assessment.

The hazard index approach was used to quantify non-carcinogenic impacts. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. This ratio is summed for compounds affecting the same toxicological endpoint. A health hazard is presumed to exist where the total equals or exceeds one.

The chronic hazard analysis for DPM is provided in Appendix C. The calculations contain the relevant exposure concentrations and corresponding reference dose values used in the evaluation of non-carcinogenic exposures.

1.5.3 Criteria Pollutants

The BAAQMD has recently incorporated $PM_{2.5}$ into the District's CEQA significance thresholds due to recent studies that show adverse health impacts from exposure to this pollutant. An incremental increase of greater than 0.3 $\mu g/m^3$ for the annual average $PM_{2.5}$ concentration is considered to be a significant impact.

1.6 CONSTRUCTION HRA RESULTS

The calculated results are provided in Appendix C and the results are summarized in Table 1.

TABLE 1. CONSTRUCTION RISK SUMMARY - UNMITIGATED

Receptor	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ ($\mu g/m^3$)
Maximum Exposed Receptor – Off-site Residences	58.4	0.27	0.68
BAAQMD Threshold	10	1.0	0.30
Exceeds Threshold?	**Yes**	**No**	**Yes**

Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

Cancer risk for the maximum exposed receptor (MER) from project-related construction emissions was calculated to be 58.4 in a million, which exceeds the 10 in a million significance threshold. In accordance with the latest 2015 OEHHA guidance, the calculated total cancer risk conservatively assumes that the risk for the MER consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the approximately 10-month construction period; therefore, all calculated risk values were multiplied by a factor of 10. In addition, it was conservatively assumed that the residents were outdoors 8 hours a day, 260 construction days per year and exposed to all of the daily construction emissions.

For non-carcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for all the off-site sensitive receptors. Therefore, chronic non-carcinogenic hazards are within acceptable limits. The highest annual $PM_{2.5}$ concentration of 0.68 $\mu g/m^3$ exceeds the BAAQMD significance threshold of 0.3 micrograms per cubic meter ($\mu g/m^3$).

Because the incremental cancer risk and maximum annual $PM_{2.5}$ concentration for the MER would exceed BAAQMD's significance thresholds due to construction activities associated with the proposed project, the following mitigation measure is proposed:

Mitigation Measure AQ-2: During construction, the construction contractor(s) shall:

- Use construction equipment that meets the United States Environmental Protection Agency's (EPA) Tier 4 Interim emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated to the City of Cupertino Building Division that such equipment is not available. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Tier 4 Interim emissions standards for a similarly sized engine, as defined by the California Air Resources Board's regulations.

- Prior to issuance of any construction permit, ensure that all construction plans submitted to the City of Cupertino Planning Department and/or Building Division clearly show the requirement for EPA Tier 4 Interim emissions standards for construction equipment over 50 horsepower.
- Maintain a list of all operating equipment in use on the project site for verification by the City of Cupertino Building Division official or his/her designee. The construction equipment list shall state the makes, models, and number of construction equipment on-site.
- Ensure that all equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations.
- Communicate with all sub-contractors in contracts and construction documents that all nonessential idling of construction equipment is restricted to 5 minutes or less in compliance with California Air Resources Board Rule 2449 and is responsible for ensuring that this requirement is met.

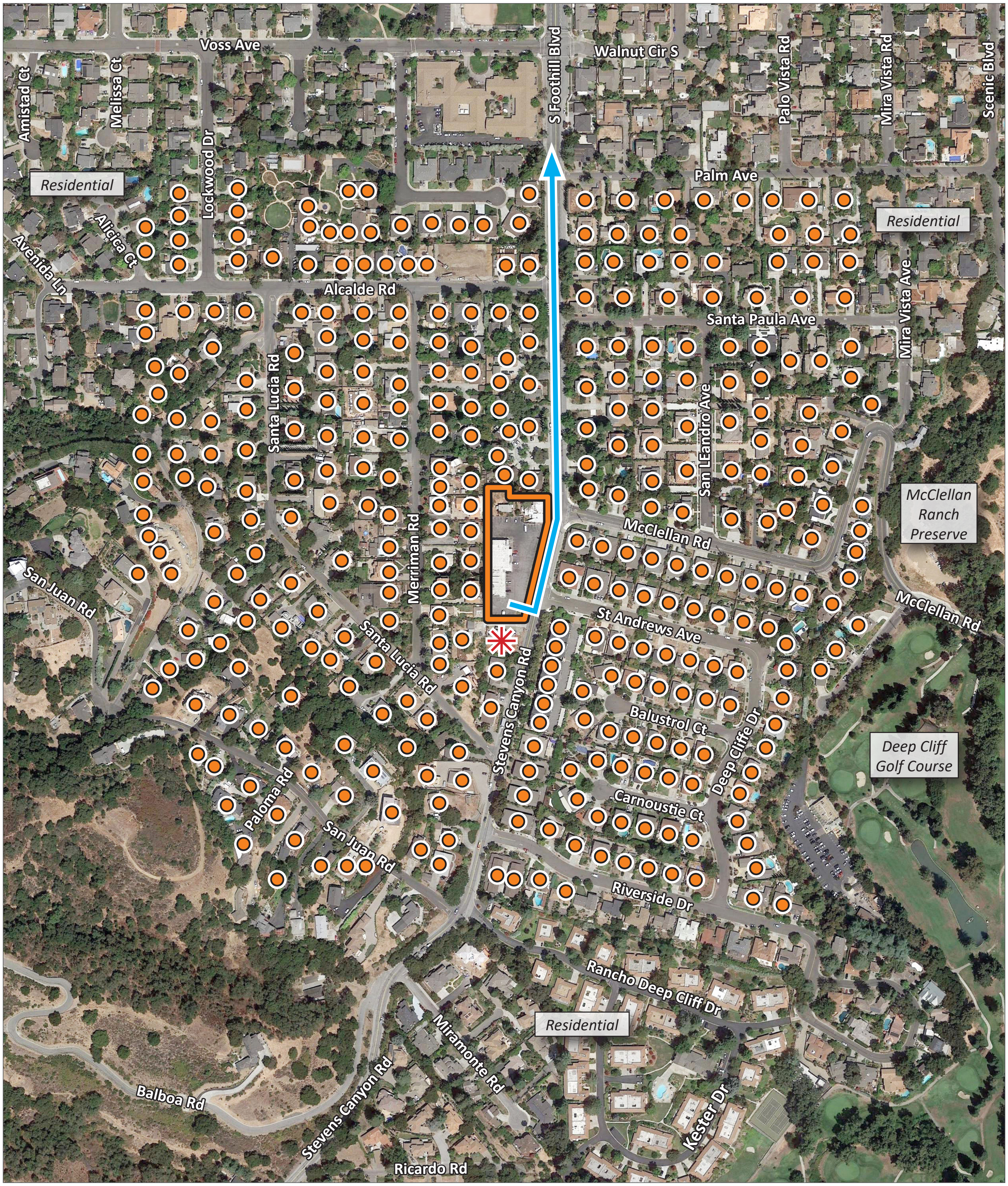
Mitigation Measure AQ-2 would reduce the project's localized construction emissions, as shown in Table 2. The results indicate that, with mitigation, cancer risk would be less than the BAAQMD's significance thresholds for residential-based receptors. Therefore, the project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions during construction and impacts would be *less than significant* with mitigation.

TABLE 2 CONSTRUCTION RISK SUMMARY – MITIGATED

Receptor	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ ($\mu g/m^3$)[a]
Maximum Exposed Receptor – Off-site Residences	7.5	0.036	0.09
BAAQMD Threshold	10	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**

Risks incorporate Mitigation Measure AQ-2, which requires all equipment of 50 horsepower or more be fitted with engines that meet the EPA's Tier 4 Interim emissions standards.

Note: Cancer risk calculated using 2015 OEHHA HRA guidance.



Source: Google Earth Professional, 2019; PlaceWorks, 2019.

▭	Project Site	✳	Maximum Exposed Receptor - Residential
↔	Truck Route	●	Receptors - Residential

Figure 1

Site and Off-Site Receptor Locations

2. References

Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines.*

———. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards.* Version 3.0. Dated May 2012.

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California Air Pollution Control Officers Association (CAPCOA). 2016. California Emissions Estimator Model (CalEEMod). Version 2016.3.2. Prepared by: ENVIRON International Corporation and the California Air Districts.

California Air Resources Board (CARB). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.*

———. 2015. *Meteorological Files.* https://www.arb.ca.gov/toxics/harp/metfiles2.htm

Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.* Dated February 2015.

United States Environmental Protection Agency (USEPA). 2011. *Exposure Factors Handbook 2011 Edition (Final).* EPA/600/R-09/052F, 2011.

______. 2005. *Guideline on Air Quality Models* (Revised). EPA-450/2-78-027R.

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Appendix A. Emission Rate Calculations

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Construction Emissions - DPM and PM2.5
Input to Risk Tables

On-site Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2020 On-site Emissions	Average Daily Emissions (lbs/day)	0.70	0.66
	Average Daily Emissions (lbs/hr)	8.79E-02	8.27E-02
	Emission Rate (g/s)	1.11E-02	1.04E-02
2021 On-site Emissions	Average Daily Emissions (lbs/day)	0.63	0.60
	Average Daily Emissions (lbs/hr)	7.88E-02	7.51E-02
	Emission Rate (g/s)	9.93E-03	9.47E-03

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Off-site Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2020 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.027	0.026
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	3.49E-04	3.38E-04
	Emission Rate (lbs/hr)	4.37E-05	4.22E-05
	Emission Rate (g/s)	5.50E-06	5.32E-06
2021 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.004	0.004
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	5.67E-05	5.20E-05
	Emission Rate (lbs/hr)	7.09E-06	6.50E-06
	Emission Rate (g/s)	8.93E-07	8.19E-07

Note: Emissions evenly distributed over 35 modeled volume sources.

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [4] 8 hours

	Year	Workdays	Risk Scalar [5]
Total construction days per year	2020	154	0.59
	2021	55	0.21

Average Hauling Length (miles)	20.0
Haul Length within 1,000 ft of Site (mile) [3]	0.26

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as $PM_{2.5}$ exhaust emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances proportioned to evaluate emissions from the 0.26-mile route within 1,000 of the project site.

[4] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App B - Air Dispersion Model Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Construction Emissions - DPM and PM2.5
Input to Risk Tables
With Mitigation - Tier 4 Interim Engines for Eq. > 50 hp

On-site Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2020 On-site Emissions	Average Daily Emissions (lbs/day)	0.08	0.08
	Average Daily Emissions (lbs/hr)	1.06E-02	1.06E-02
	Emission Rate (g/s)	1.34E-03	1.34E-03
2021 On-site Emissions	Average Daily Emissions (lbs/day)	0.09	0.09
	Average Daily Emissions (lbs/hr)	1.15E-02	1.15E-02
	Emission Rate (g/s)	1.44E-03	1.44E-03

Note: Emissions assumed to be evenly distributed over entire construction phase area.

Off-site Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2020 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.027	0.026
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	3.49E-04	3.38E-04
	Emission Rate (lbs/hr)	4.37E-05	4.22E-05
	Emission Rate (g/s)	5.50E-06	5.32E-06
2021 Off-site Emissions	Haul Length Daily Emissions (lbs/day)	0.004	0.004
	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	5.67E-05	5.20E-05
	Emission Rate (lbs/hr)	7.09E-06	6.50E-06
	Emission Rate (g/s)	8.93E-07	8.19E-07

Note: Emissions evenly distributed over 35 modeled volume sources.

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [4] 8 hours

	Year	Workdays	Risk Scalar [5]
Total construction days per year	2020	154	0.59
	2021	55	0.21

Average Hauling Length (miles)	20.0
Haul Length within 1,000 ft of Site (mile) [3]	0.26

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] $PM_{2.5}$ emissions taken as $PM_{2.5}$ exhaust emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances proportioned to evaluate emissions from the 0.26-mile route within 1,000 of the project site.

[4] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App B - Air Dispersion Model Output Files).

[5] Residential risk scalars determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

Appendix B. Air Dispersion Model Output

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Model Output
Unit Emission Rate (1 g/s)

```
*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                 ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                     ***        10:51:08
                                                                                                                   PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for    36 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   1938000.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of:  OTHER

**Model Calculates PERIOD Averages Only

**This Run Includes:     36 Source(s);       2 Source Group(s); and     465 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:     35 VOLUME source(s)
                and:      1 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


**Model Set To Continue RUNning After the Setup Testing.
```

Model Output
Unit Emission Rate (1 g/s)

```
**The AERMET Input Meteorological Data Version Date:  14134

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    11.90 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   cocu15.err
**File for Summary of Results:   cocu15.sum
```

Model Output
Unit Emission Rate (1 g/s)

```
*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                        ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                            ***        10:51:08
                                                                                                                          PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
   ID          CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

L0000001         0   0.28571E-01  582508.8 4130023.4   126.7     4.15     5.67     1.93     YES    HRDOW
L0000002         0   0.28571E-01  582511.9 4130035.2   126.8     4.15     5.67     1.93     YES    HRDOW
L0000003         0   0.28571E-01  582515.0 4130047.0   126.9     4.15     5.67     1.93     YES    HRDOW
L0000004         0   0.28571E-01  582518.1 4130058.8   127.1     4.15     5.67     1.93     YES    HRDOW
L0000005         0   0.28571E-01  582521.3 4130070.5   127.4     4.15     5.67     1.93     YES    HRDOW
L0000006         0   0.28571E-01  582524.4 4130082.3   127.4     4.15     5.67     1.93     YES    HRDOW
L0000007         0   0.28571E-01  582527.5 4130094.1   127.4     4.15     5.67     1.93     YES    HRDOW
L0000008         0   0.28571E-01  582530.6 4130105.9   127.7     4.15     5.67     1.93     YES    HRDOW
L0000009         0   0.28571E-01  582531.5 4130118.0   127.8     4.15     5.67     1.93     YES    HRDOW
L0000010         0   0.28571E-01  582531.3 4130130.1   128.1     4.15     5.67     1.93     YES    HRDOW
L0000011         0   0.28571E-01  582531.1 4130142.3   128.1     4.15     5.67     1.93     YES    HRDOW
L0000012         0   0.28571E-01  582530.9 4130154.5   128.0     4.15     5.67     1.93     YES    HRDOW
L0000013         0   0.28571E-01  582530.7 4130166.7   128.0     4.15     5.67     1.93     YES    HRDOW
L0000014         0   0.28571E-01  582530.5 4130178.9   128.1     4.15     5.67     1.93     YES    HRDOW
L0000015         0   0.28571E-01  582530.3 4130191.1   128.1     4.15     5.67     1.93     YES    HRDOW
L0000016         0   0.28571E-01  582530.1 4130203.3   128.2     4.15     5.67     1.93     YES    HRDOW
L0000017         0   0.28571E-01  582529.9 4130215.5   128.2     4.15     5.67     1.93     YES    HRDOW
L0000018         0   0.28571E-01  582529.7 4130227.7   128.2     4.15     5.67     1.93     YES    HRDOW
L0000019         0   0.28571E-01  582529.5 4130239.9   128.2     4.15     5.67     1.93     YES    HRDOW
L0000020         0   0.28571E-01  582529.3 4130252.0   128.0     4.15     5.67     1.93     YES    HRDOW
L0000021         0   0.28571E-01  582529.1 4130264.2   127.8     4.15     5.67     1.93     YES    HRDOW
L0000022         0   0.28571E-01  582528.9 4130276.4   127.8     4.15     5.67     1.93     YES    HRDOW
L0000023         0   0.28571E-01  582528.7 4130288.6   127.7     4.15     5.67     1.93     YES    HRDOW
L0000024         0   0.28571E-01  582528.5 4130300.8   127.6     4.15     5.67     1.93     YES    HRDOW
L0000025         0   0.28571E-01  582528.3 4130313.0   127.6     4.15     5.67     1.93     YES    HRDOW
L0000026         0   0.28571E-01  582528.1 4130325.2   127.5     4.15     5.67     1.93     YES    HRDOW
L0000027         0   0.28571E-01  582527.9 4130337.4   127.2     4.15     5.67     1.93     YES    HRDOW
L0000028         0   0.28571E-01  582527.7 4130349.6   126.9     4.15     5.67     1.93     YES    HRDOW
L0000029         0   0.28571E-01  582527.5 4130361.8   126.7     4.15     5.67     1.93     YES    HRDOW
L0000030         0   0.28571E-01  582527.3 4130374.0   126.5     4.15     5.67     1.93     YES    HRDOW
L0000031         0   0.28571E-01  582527.1 4130386.1   126.4     4.15     5.67     1.93     YES    HRDOW
L0000032         0   0.28571E-01  582526.9 4130398.3   126.2     4.15     5.67     1.93     YES    HRDOW
L0000033         0   0.28571E-01  582526.7 4130410.5   126.0     4.15     5.67     1.93     YES    HRDOW
L0000034         0   0.28571E-01  582526.5 4130422.7   125.8     4.15     5.67     1.93     YES    HRDOW
L0000035         0   0.28571E-01  582526.3 4130434.9   125.7     4.15     5.67     1.93     YES    HRDOW
```

Model Output
Unit Emission Rate (1 g/s)

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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE   3
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                               *** AREAPOLY SOURCE DATA ***

              NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER      INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.     SZ     SOURCE  SCALAR VARY
    ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)            (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ONSITE           0   0.16964E-03  582463.6 4130135.3   130.0     4.15       7         1.93     YES   HRDOW
```

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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                                 ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                                     ***        10:51:08
                                                                                                                                   PAGE   4
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                                 SOURCE IDs
-----------                                                 ----------

 HAUL       L0000001    , L0000002    , L0000003    , L0000004    , L0000005    , L0000006    , L0000007    , L0000008    ,

            L0000009    , L0000010    , L0000011    , L0000012    , L0000013    , L0000014    , L0000015    , L0000016    ,

            L0000017    , L0000018    , L0000019    , L0000020    , L0000021    , L0000022    , L0000023    , L0000024    ,

            L0000025    , L0000026    , L0000027    , L0000028    , L0000029    , L0000030    , L0000031    , L0000032    ,

            L0000033    , L0000034    , L0000035    ,

 ONSITE     ONSITE      ,
```

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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                                 ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                                     ***        10:51:08
                                                                                                                                   PAGE   5
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                                 *** SOURCE IDs DEFINED AS URBAN SOURCES ***

 URBAN ID   URBAN POP                                      SOURCE IDs
 --------   ---------                                      ----------

             1938000.   ONSITE      , L0000001    , L0000002    , L0000003    , L0000004    , L0000005    , L0000006    ,
L0000007    ,

            L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    , L0000014    , L0000015    ,

            L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    , L0000022    , L0000023    ,

            L0000024    , L0000025    , L0000026    , L0000027    , L0000028    , L0000029    , L0000030    , L0000031    ,

            L0000032    , L0000033    , L0000034    , L0000035    ,
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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE   6
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = ONSITE       ; SOURCE TYPE = AREAPOLY :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .0000E+00   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE   7
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000001 thru L0000035     ; SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .1000E+01
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .0000E+00   14  .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
```

Model Output

Unit Emission Rate (1 g/s)

```
*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                  ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                      ***        10:51:08
                                                                                                                    PAGE  42
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                                 *** DISCRETE CARTESIAN RECEPTORS ***
                                               (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                              (METERS)

    ( 582267.2, 4129774.5,     180.7,     285.7,       1.5);         ( 582297.2, 4129774.5,     171.6,     285.7,       1.5);
    ( 582327.2, 4129774.5,     163.3,     285.7,       1.5);         ( 582357.2, 4129774.5,     157.0,     285.7,       1.5);
    ( 582387.2, 4129774.5,     150.7,     285.7,       1.5);         ( 582417.2, 4129774.5,     146.0,     285.7,       1.5);
    ( 582447.2, 4129774.5,     142.9,     285.7,       1.5);         ( 582477.2, 4129774.5,     139.1,     285.7,       1.5);
    ( 582507.2, 4129774.5,     138.0,     285.7,       1.5);         ( 582537.2, 4129774.5,     134.9,     285.7,       1.5);
    ( 582567.2, 4129774.5,     133.0,     285.7,       1.5);         ( 582597.2, 4129774.5,     131.3,     285.7,       1.5);
    ( 582627.2, 4129774.5,     129.0,     285.7,       1.5);         ( 582657.2, 4129774.5,     126.3,     285.7,       1.5);
    ( 582687.2, 4129774.5,     124.8,     285.7,       1.5);         ( 582717.2, 4129774.5,     125.2,     285.7,       1.5);
    ( 582747.2, 4129774.5,     124.0,     285.7,       1.5);         ( 582237.2, 4129804.5,     184.9,     285.7,       1.5);
    ( 582267.2, 4129804.5,     178.3,     285.7,       1.5);         ( 582297.2, 4129804.5,     172.1,     285.7,       1.5);
    ( 582327.2, 4129804.5,     164.6,     285.7,       1.5);         ( 582357.2, 4129804.5,     159.0,     285.7,       1.5);
    ( 582387.2, 4129804.5,     155.1,     285.7,       1.5);         ( 582417.2, 4129804.5,     147.1,     285.7,       1.5);
    ( 582447.2, 4129804.5,     142.6,     285.7,       1.5);         ( 582477.2, 4129804.5,     138.4,     285.7,       1.5);
    ( 582507.2, 4129804.5,     136.7,     285.7,       1.5);         ( 582537.2, 4129804.5,     135.3,     285.7,       1.5);
    ( 582567.2, 4129804.5,     132.6,     285.7,       1.5);         ( 582597.2, 4129804.5,     131.6,     285.7,       1.5);
    ( 582627.2, 4129804.5,     128.2,     285.7,       1.5);         ( 582657.2, 4129804.5,     125.2,     285.7,       1.5);
    ( 582687.2, 4129804.5,     124.3,     285.7,       1.5);         ( 582717.2, 4129804.5,     125.0,     285.7,       1.5);
    ( 582237.2, 4129834.5,     184.4,     285.7,       1.5);         ( 582267.2, 4129834.5,     177.3,     285.7,       1.5);
    ( 582297.2, 4129834.5,     172.2,     285.7,       1.5);         ( 582327.2, 4129834.5,     168.7,     285.7,       1.5);
    ( 582357.2, 4129834.5,     165.2,     285.7,       1.5);         ( 582387.2, 4129834.5,     160.4,     285.7,       1.5);
    ( 582417.2, 4129834.5,     147.6,     285.7,       1.5);         ( 582447.2, 4129834.5,     143.8,     285.7,       1.5);
    ( 582477.2, 4129834.5,     136.6,     285.7,       1.5);         ( 582507.2, 4129834.5,     134.5,     285.7,       1.5);
    ( 582537.2, 4129834.5,     132.9,     285.7,       1.5);         ( 582567.2, 4129834.5,     129.2,     285.7,       1.5);
    ( 582597.2, 4129834.5,     128.0,     285.7,       1.5);         ( 582627.2, 4129834.5,     126.5,     285.7,       1.5);
    ( 582657.2, 4129834.5,     124.5,     285.7,       1.5);         ( 582687.2, 4129834.5,     123.4,     285.7,       1.5);
    ( 582717.2, 4129834.5,     123.1,     285.7,       1.5);         ( 582207.2, 4129864.5,     185.2,     285.7,       1.5);
    ( 582237.2, 4129864.5,     180.4,     285.7,       1.5);         ( 582267.2, 4129864.5,     176.3,     285.7,       1.5);
    ( 582297.2, 4129864.5,     171.9,     285.7,       1.5);         ( 582327.2, 4129864.5,     170.9,     285.7,       1.5);
    ( 582357.2, 4129864.5,     165.9,     285.7,       1.5);         ( 582387.2, 4129864.5,     160.1,     285.7,       1.5);
    ( 582417.2, 4129864.5,     144.7,     285.7,       1.5);         ( 582447.2, 4129864.5,     139.4,     285.7,       1.5);
    ( 582477.2, 4129864.5,     134.2,     285.7,       1.5);         ( 582507.2, 4129864.5,     131.7,     285.7,       1.5);
    ( 582537.2, 4129864.5,     130.4,     285.7,       1.5);         ( 582567.2, 4129864.5,     128.2,     285.7,       1.5);
    ( 582597.2, 4129864.5,     127.5,     285.7,       1.5);         ( 582627.2, 4129864.5,     126.2,     285.7,       1.5);
    ( 582657.2, 4129864.5,     124.5,     285.7,       1.5);         ( 582687.2, 4129864.5,     122.7,     285.7,       1.5);
    ( 582717.2, 4129864.5,     120.8,     285.7,       1.5);         ( 582177.2, 4129894.5,     186.5,     285.7,       1.5);
    ( 582207.2, 4129894.5,     179.9,     285.7,       1.5);         ( 582237.2, 4129894.5,     176.1,     285.7,       1.5);
    ( 582267.2, 4129894.5,     172.0,     285.7,       1.5);         ( 582297.2, 4129894.5,     167.8,     285.7,       1.5);
    ( 582327.2, 4129894.5,     165.9,     285.7,       1.5);         ( 582357.2, 4129894.5,     161.3,     285.7,       1.5);
    ( 582387.2, 4129894.5,     151.0,     285.7,       1.5);         ( 582417.2, 4129894.5,     140.6,     285.7,       1.5);
    ( 582447.2, 4129894.5,     134.8,     285.7,       1.5);         ( 582477.2, 4129894.5,     130.7,     285.7,       1.5);
    ( 582507.2, 4129894.5,     129.2,     285.7,       1.5);         ( 582537.2, 4129894.5,     127.6,     285.7,       1.5);
    ( 582567.2, 4129894.5,     126.7,     285.7,       1.5);         ( 582597.2, 4129894.5,     125.6,     285.7,       1.5);
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( 582627.2, 4129894.5,     124.4,     285.7,       1.5);        ( 582657.2, 4129894.5,     123.9,     285.7,       1.5);
( 582687.2, 4129894.5,     122.6,     285.7,       1.5);        ( 582717.2, 4129894.5,     121.2,     285.7,       1.5);
( 582147.2, 4129924.5,     177.2,     285.7,       1.5);        ( 582177.2, 4129924.5,     178.1,     285.7,       1.5);
( 582207.2, 4129924.5,     177.9,     285.7,       1.5);        ( 582237.2, 4129924.5,     173.4,     285.7,       1.5);
( 582267.2, 4129924.5,     168.1,     285.7,       1.5);        ( 582297.2, 4129924.5,     160.5,     285.7,       1.5);
( 582327.2, 4129924.5,     152.4,     285.7,       1.5);        ( 582357.2, 4129924.5,     146.0,     285.7,       1.5);
( 582387.2, 4129924.5,     140.1,     285.7,       1.5);        ( 582417.2, 4129924.5,     132.3,     285.7,       1.5);
( 582447.2, 4129924.5,     130.6,     285.7,       1.5);        ( 582477.2, 4129924.5,     129.1,     285.7,       1.5);
( 582507.2, 4129924.5,     128.1,     285.7,       1.5);        ( 582537.2, 4129924.5,     125.8,     285.7,       1.5);
( 582567.2, 4129924.5,     124.6,     285.7,       1.5);        ( 582597.2, 4129924.5,     123.9,     285.7,       1.5);
( 582627.2, 4129924.5,     123.3,     285.7,       1.5);        ( 582657.2, 4129924.5,     122.9,     285.7,       1.5);
( 582687.2, 4129924.5,     122.5,     285.7,       1.5);        ( 582717.2, 4129924.5,     120.8,     285.7,       1.5);
( 582747.2, 4129924.5,     116.2,     285.7,       1.5);        ( 582147.2, 4129954.5,     170.9,     285.7,       1.5);
( 582177.2, 4129954.5,     167.8,     285.7,       1.5);        ( 582207.2, 4129954.5,     172.3,     285.7,       1.5);
( 582237.2, 4129954.5,     171.4,     285.7,       1.5);        ( 582267.2, 4129954.5,     164.2,     285.7,       1.5);
( 582297.2, 4129954.5,     153.9,     285.7,       1.5);        ( 582327.2, 4129954.5,     145.0,     285.7,       1.5);
( 582357.2, 4129954.5,     139.7,     285.7,       1.5);        ( 582387.2, 4129954.5,     135.1,     285.7,       1.5);
( 582417.2, 4129954.5,     131.6,     285.7,       1.5);        ( 582447.2, 4129954.5,     129.6,     285.7,       1.5);
( 582477.2, 4129954.5,     128.2,     285.7,       1.5);        ( 582507.2, 4129954.5,     127.3,     285.7,       1.5);
( 582537.2, 4129954.5,     125.8,     285.7,       1.5);        ( 582567.2, 4129954.5,     124.8,     285.7,       1.5);
( 582597.2, 4129954.5,     124.2,     285.7,       1.5);        ( 582627.2, 4129954.5,     124.0,     285.7,       1.5);
( 582657.2, 4129954.5,     123.7,     285.7,       1.5);        ( 582687.2, 4129954.5,     123.1,     285.7,       1.5);
( 582717.2, 4129954.5,     120.7,     285.7,       1.5);        ( 582747.2, 4129954.5,     117.5,     285.7,       1.5);
( 582777.2, 4129954.5,     110.7,     285.7,       1.5);        ( 582147.2, 4129984.5,     171.6,     285.7,       1.5);
( 582177.2, 4129984.5,     163.2,     285.7,       1.5);        ( 582207.2, 4129984.5,     161.7,     285.7,       1.5);
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( 582297.2, 4129984.5,     148.0,     285.7,       1.5);        ( 582327.2, 4129984.5,     141.0,     285.7,       1.5);
( 582357.2, 4129984.5,     137.5,     285.7,       1.5);        ( 582387.2, 4129984.5,     134.2,     285.7,       1.5);
( 582417.2, 4129984.5,     132.2,     285.7,       1.5);        ( 582447.2, 4129984.5,     129.7,     285.7,       1.5);
( 582477.2, 4129984.5,     128.1,     285.7,       1.5);        ( 582537.2, 4129984.5,     125.9,     285.7,       1.5);
( 582567.2, 4129984.5,     125.0,     285.7,       1.5);        ( 582597.2, 4129984.5,     124.2,     285.7,       1.5);
( 582627.2, 4129984.5,     123.7,     285.7,       1.5);        ( 582657.2, 4129984.5,     123.1,     285.7,       1.5);
( 582687.2, 4129984.5,     122.3,     285.7,       1.5);        ( 582717.2, 4129984.5,     121.7,     285.7,       1.5);
( 582747.2, 4129984.5,     120.4,     285.7,       1.5);        ( 582777.2, 4129984.5,     112.5,     285.7,       1.5);
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( 582177.2, 4130014.5,     162.9,     285.7,       1.5);        ( 582207.2, 4130014.5,     156.4,     285.7,       1.5);
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( 582417.2, 4130014.5,     132.3,     285.7,       1.5);        ( 582447.2, 4130014.5,     130.2,     285.7,       1.5);
( 582480.3, 4130004.7,     128.1,     285.7,       1.5);        ( 582537.2, 4130014.5,     125.8,     285.7,       1.5);
( 582567.2, 4130014.5,     124.7,     285.7,       1.5);        ( 582597.2, 4130014.5,     123.8,     285.7,       1.5);
( 582627.2, 4130014.5,     123.1,     285.7,       1.5);        ( 582657.2, 4130014.5,     123.0,     285.7,       1.5);
( 582687.2, 4130014.5,     122.8,     285.7,       1.5);        ( 582717.2, 4130014.5,     122.5,     285.7,       1.5);
( 582747.2, 4130014.5,     121.4,     285.7,       1.5);        ( 582777.2, 4130014.5,     116.8,     285.7,       1.5);
( 582807.2, 4130014.5,     110.4,     285.7,       1.5);        ( 582147.2, 4130044.5,     173.9,     285.7,       1.5);
( 582177.2, 4130044.5,     166.7,     285.7,       1.5);        ( 582207.2, 4130044.5,     156.3,     285.7,       1.5);
( 582237.2, 4130044.5,     150.3,     285.7,       1.5);        ( 582267.2, 4130044.5,     147.8,     285.7,       1.5);
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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                  ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                      ***        10:51:08
                                                                                                                    PAGE  44
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                        (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                       (METERS)

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    ( 582357.2, 4130044.5,     137.2,     285.7,       1.5);          ( 582387.2, 4130044.5,     134.6,     285.7,       1.5);
    ( 582417.2, 4130044.5,     132.4,     285.7,       1.5);          ( 582447.2, 4130044.5,     130.3,     285.7,       1.5);
    ( 582537.2, 4130044.5,     126.5,     285.7,       1.5);          ( 582567.2, 4130044.5,     125.5,     285.7,       1.5);
    ( 582597.2, 4130044.5,     124.8,     285.7,       1.5);          ( 582627.2, 4130044.5,     124.1,     285.7,       1.5);
    ( 582657.2, 4130044.5,     123.6,     285.7,       1.5);          ( 582687.2, 4130044.5,     123.2,     285.7,       1.5);
    ( 582717.2, 4130044.5,     122.9,     285.7,       1.5);          ( 582747.2, 4130044.5,     122.1,     285.7,       1.5);
    ( 582777.2, 4130044.5,     121.1,     285.7,       1.5);          ( 582807.2, 4130044.5,     117.9,     285.7,       1.5);
    ( 582147.2, 4130074.5,     170.1,     285.7,       1.5);          ( 582177.2, 4130074.5,     163.2,     285.7,       1.5);
    ( 582207.2, 4130074.5,     155.5,     285.7,       1.5);          ( 582237.2, 4130074.5,     148.6,     285.7,       1.5);
    ( 582267.2, 4130074.5,     144.4,     285.7,       1.5);          ( 582297.2, 4130074.5,     142.4,     285.7,       1.5);
    ( 582327.2, 4130074.5,     139.7,     285.7,       1.5);          ( 582357.2, 4130074.5,     136.7,     285.7,       1.5);
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    ( 582627.2, 4130074.5,     124.2,     285.7,       1.5);          ( 582657.2, 4130074.5,     123.5,     285.7,       1.5);
    ( 582687.2, 4130074.5,     122.6,     285.7,       1.5);          ( 582717.2, 4130074.5,     122.2,     285.7,       1.5);
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    ( 582807.2, 4130074.5,     120.7,     285.7,       1.5);          ( 582147.2, 4130104.5,     163.3,     285.7,       1.5);
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    ( 582297.2, 4130104.5,     140.4,     285.7,       1.5);          ( 582327.2, 4130104.5,     137.7,     285.7,       1.5);
    ( 582357.2, 4130104.5,     135.7,     285.7,       1.5);          ( 582387.2, 4130104.5,     133.8,     285.7,       1.5);
    ( 582417.2, 4130104.5,     132.2,     285.7,       1.5);          ( 582447.2, 4130104.5,     130.4,     285.7,       1.5);
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    ( 582687.2, 4130104.5,     123.0,     285.7,       1.5);          ( 582717.2, 4130104.5,     122.3,     285.7,       1.5);
    ( 582747.2, 4130104.5,     121.9,     285.7,       1.5);          ( 582777.2, 4130104.5,     121.4,     285.7,       1.5);
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    ( 582177.2, 4130134.5,     148.5,     285.7,       1.5);          ( 582207.2, 4130134.5,     144.7,     285.7,       1.5);
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    ( 582357.2, 4130134.5,     135.0,     285.7,       1.5);          ( 582387.2, 4130134.5,     133.4,     285.7,       1.5);
    ( 582417.2, 4130134.5,     132.2,     285.7,       1.5);          ( 582447.2, 4130134.5,     130.6,     285.7,       1.5);
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    ( 582567.2, 4130134.5,     126.9,     285.7,       1.5);          ( 582597.2, 4130134.5,     125.5,     285.7,       1.5);
    ( 582627.2, 4130134.5,     124.3,     285.7,       1.5);          ( 582657.2, 4130134.5,     123.4,     285.7,       1.5);
    ( 582687.2, 4130134.5,     122.8,     285.7,       1.5);          ( 582717.2, 4130134.5,     122.0,     285.7,       1.5);
    ( 582747.2, 4130134.5,     121.5,     285.7,       1.5);          ( 582777.2, 4130134.5,     121.2,     285.7,       1.5);
    ( 582807.2, 4130134.5,     120.6,     285.7,       1.5);          ( 582147.2, 4130164.5,     147.4,     285.7,       1.5);
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( 582417.2, 4130164.5,      132.1,      285.7,        1.5);         ( 582447.2, 4130164.5,      131.0,      285.7,        1.5);
( 582477.2, 4130164.5,      129.9,      285.7,        1.5);         ( 582507.2, 4130164.5,      128.9,      285.7,        1.5);
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( 582627.2, 4130164.5,      124.4,      285.7,        1.5);         ( 582657.2, 4130164.5,      123.4,      285.7,        1.5);
( 582687.2, 4130164.5,      122.7,      285.7,        1.5);         ( 582717.2, 4130164.5,      121.9,      285.7,        1.5);
( 582747.2, 4130164.5,      121.4,      285.7,        1.5);         ( 582777.2, 4130164.5,      121.0,      285.7,        1.5);
( 582807.2, 4130164.5,      120.4,      285.7,        1.5);         ( 582147.2, 4130194.5,      143.5,      285.7,        1.5);
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( 582417.2, 4130194.5,      132.2,      285.7,        1.5);         ( 582447.2, 4130194.5,      131.0,      285.7,        1.5);
( 582477.2, 4130194.5,      129.7,      285.7,        1.5);         ( 582507.2, 4130194.5,      129.2,      285.7,        1.5);
( 582553.2, 4130178.2,      127.5,      285.7,        1.5);         ( 582567.2, 4130194.5,      127.1,      285.7,        1.5);
( 582597.2, 4130194.5,      126.0,      285.7,        1.5);         ( 582627.2, 4130194.5,      124.6,      285.7,        1.5);
( 582657.2, 4130194.5,      123.7,      285.7,        1.5);         ( 582687.2, 4130194.5,      123.2,      285.7,        1.5);
( 582717.2, 4130194.5,      122.3,      285.7,        1.5);         ( 582747.2, 4130194.5,      121.3,      285.7,        1.5);
( 582777.2, 4130194.5,      121.2,      285.7,        1.5);         ( 582807.2, 4130194.5,      120.4,      285.7,        1.5);
( 582147.2, 4130224.5,      143.0,      285.7,        1.5);         ( 582177.2, 4130224.5,      141.6,      285.7,        1.5);
( 582207.2, 4130224.5,      140.2,      285.7,        1.5);         ( 582237.2, 4130224.5,      138.7,      285.7,        1.5);
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( 582327.2, 4130224.5,      135.4,      285.7,        1.5);         ( 582357.2, 4130224.5,      134.1,      285.7,        1.5);
( 582387.2, 4130224.5,      133.2,      285.7,        1.5);         ( 582417.2, 4130224.5,      132.0,      285.7,        1.5);
( 582447.2, 4130224.5,      131.0,      285.7,        1.5);         ( 582477.2, 4130224.5,      129.8,      285.7,        1.5);
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( 582567.2, 4130224.5,      127.3,      285.7,        1.5);         ( 582597.2, 4130224.5,      125.9,      285.7,        1.5);
( 582627.2, 4130224.5,      124.8,      285.7,        1.5);         ( 582657.2, 4130224.5,      124.1,      285.7,        1.5);
( 582687.2, 4130224.5,      123.7,      285.7,        1.5);         ( 582717.2, 4130224.5,      122.5,      285.7,        1.5);
( 582747.2, 4130224.5,      121.6,      285.7,        1.5);         ( 582777.2, 4130224.5,      121.2,      285.7,        1.5);
( 582807.2, 4130224.5,      120.2,      285.7,        1.5);         ( 582147.2, 4130254.5,      141.5,      285.7,        1.5);
( 582177.2, 4130254.5,      140.5,      285.7,        1.5);         ( 582207.2, 4130254.5,      139.4,      285.7,        1.5);
( 582237.2, 4130254.5,      138.4,      285.7,        1.5);         ( 582267.2, 4130254.5,      137.4,      285.7,        1.5);
( 582297.2, 4130254.5,      136.4,      285.7,        1.5);         ( 582327.2, 4130254.5,      135.2,      285.7,        1.5);
( 582357.2, 4130254.5,      134.2,      285.7,        1.5);         ( 582387.2, 4130254.5,      132.9,      285.7,        1.5);
( 582417.2, 4130254.5,      132.2,      285.7,        1.5);         ( 582447.2, 4130254.5,      130.9,      285.7,        1.5);
( 582477.2, 4130254.5,      129.8,      285.7,        1.5);         ( 582507.2, 4130254.5,      129.0,      285.7,        1.5);
( 582545.5, 4130254.2,      127.5,      285.7,        1.5);         ( 582567.2, 4130254.5,      126.8,      285.7,        1.5);
( 582597.2, 4130254.5,      125.9,      285.7,        1.5);         ( 582627.2, 4130254.5,      124.8,      285.7,        1.5);
( 582657.2, 4130254.5,      123.8,      285.7,        1.5);         ( 582687.2, 4130254.5,      123.0,      285.7,        1.5);
( 582717.2, 4130254.5,      122.4,      285.7,        1.5);         ( 582747.2, 4130254.5,      121.7,      285.7,        1.5);
( 582777.2, 4130254.5,      121.2,      285.7,        1.5);         ( 582807.2, 4130254.5,      120.3,      285.7,        1.5);
( 582147.2, 4130284.5,      140.1,      285.7,        1.5);         ( 582177.2, 4130284.5,      138.8,      285.7,        1.5);
( 582207.2, 4130284.5,      138.5,      285.7,        1.5);         ( 582237.2, 4130284.5,      137.3,      285.7,        1.5);
( 582267.2, 4130284.5,      136.9,      285.7,        1.5);         ( 582297.2, 4130284.5,      135.9,      285.7,        1.5);
( 582327.2, 4130284.5,      134.7,      285.7,        1.5);         ( 582357.2, 4130284.5,      133.7,      285.7,        1.5);
( 582387.2, 4130284.5,      132.7,      285.7,        1.5);         ( 582417.2, 4130284.5,      131.6,      285.7,        1.5);
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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE  46
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                        (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                       (METERS)

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   ( 582507.2, 4130284.5,     128.8,     285.7,       1.5);         ( 582547.3, 4130284.5,     127.3,     285.7,       1.5);
   ( 582567.2, 4130284.5,     126.6,     285.7,       1.5);         ( 582597.2, 4130284.5,     125.6,     285.7,       1.5);
   ( 582627.2, 4130284.5,     124.5,     285.7,       1.5);         ( 582657.2, 4130284.5,     123.6,     285.7,       1.5);
   ( 582687.2, 4130284.5,     122.8,     285.7,       1.5);         ( 582717.2, 4130284.5,     122.0,     285.7,       1.5);
   ( 582747.2, 4130284.5,     121.2,     285.7,       1.5);         ( 582777.2, 4130284.5,     120.7,     285.7,       1.5);
   ( 582807.2, 4130284.5,     120.2,     285.7,       1.5);         ( 582147.2, 4130314.5,     139.0,     285.7,       1.5);
   ( 582177.2, 4130314.5,     138.2,     285.7,       1.5);         ( 582207.2, 4130314.5,     137.5,     285.7,       1.5);
   ( 582237.2, 4130314.5,     136.8,     285.7,       1.5);         ( 582267.2, 4130314.5,     136.0,     285.7,       1.5);
   ( 582297.2, 4130314.5,     135.0,     285.7,       1.5);         ( 582327.2, 4130314.5,     133.9,     285.7,       1.5);
   ( 582357.2, 4130314.5,     133.0,     285.7,       1.5);         ( 582387.2, 4130314.5,     132.1,     285.7,       1.5);
   ( 582417.2, 4130314.5,     131.0,     285.7,       1.5);         ( 582447.2, 4130314.5,     130.3,     285.7,       1.5);
   ( 582477.2, 4130314.5,     129.1,     285.7,       1.5);         ( 582507.2, 4130314.5,     128.1,     285.7,       1.5);
   ( 582543.4, 4130314.5,     127.1,     285.7,       1.5);         ( 582567.2, 4130314.5,     126.3,     285.7,       1.5);
   ( 582597.2, 4130314.5,     125.8,     285.7,       1.5);         ( 582627.2, 4130314.5,     124.4,     285.7,       1.5);
   ( 582657.2, 4130314.5,     123.7,     285.7,       1.5);         ( 582687.2, 4130314.5,     123.0,     285.7,       1.5);
   ( 582717.2, 4130314.5,     122.5,     285.7,       1.5);         ( 582747.2, 4130314.5,     121.3,     285.7,       1.5);
   ( 582777.2, 4130314.5,     120.5,     285.7,       1.5);         ( 582807.2, 4130314.5,     120.1,     285.7,       1.5);
   ( 582147.2, 4130344.5,     137.6,     285.7,       1.5);         ( 582177.2, 4130344.5,     136.6,     285.7,       1.5);
   ( 582207.2, 4130344.5,     136.0,     285.7,       1.5);         ( 582237.2, 4130344.5,     136.2,     285.7,       1.5);
   ( 582267.2, 4130344.5,     135.8,     285.7,       1.5);         ( 582297.2, 4130344.5,     134.6,     285.7,       1.5);
   ( 582327.2, 4130344.5,     133.7,     285.7,       1.5);         ( 582357.2, 4130344.5,     132.8,     285.7,       1.5);
   ( 582387.2, 4130344.5,     131.7,     285.7,       1.5);         ( 582417.2, 4130344.5,     130.7,     285.7,       1.5);
   ( 582447.2, 4130344.5,     130.9,     285.7,       1.5);         ( 582477.2, 4130344.5,     128.9,     285.7,       1.5);
   ( 582507.2, 4130344.5,     128.3,     285.7,       1.5);         ( 582543.9, 4130339.3,     126.8,     285.7,       1.5);
   ( 582567.2, 4130344.5,     126.3,     285.7,       1.5);         ( 582597.2, 4130344.5,     125.7,     285.7,       1.5);
   ( 582627.2, 4130344.5,     124.8,     285.7,       1.5);         ( 582657.2, 4130344.5,     123.2,     285.7,       1.5);
   ( 582687.2, 4130344.5,     123.2,     285.7,       1.5);         ( 582717.2, 4130344.5,     121.7,     285.7,       1.5);
   ( 582747.2, 4130344.5,     121.1,     285.7,       1.5);         ( 582777.2, 4130344.5,     120.8,     285.7,       1.5);
   ( 582807.2, 4130344.5,     119.9,     285.7,       1.5);         ( 582147.2, 4130374.5,     137.2,     285.7,       1.5);
   ( 582177.2, 4130374.5,     135.3,     285.7,       1.5);         ( 582207.2, 4130374.5,     134.4,     285.7,       1.5);
   ( 582237.2, 4130374.5,     135.1,     285.7,       1.5);         ( 582267.2, 4130374.5,     134.0,     285.7,       1.5);
   ( 582297.2, 4130374.5,     133.5,     285.7,       1.5);         ( 582327.2, 4130374.5,     133.2,     285.7,       1.5);
   ( 582357.2, 4130374.5,     132.4,     285.7,       1.5);         ( 582387.2, 4130374.5,     130.9,     285.7,       1.5);
   ( 582417.2, 4130374.5,     130.2,     285.7,       1.5);         ( 582447.2, 4130374.5,     129.4,     285.7,       1.5);
   ( 582477.2, 4130374.5,     128.5,     285.7,       1.5);         ( 582507.2, 4130374.5,     128.2,     285.7,       1.5);
   ( 582544.1, 4130374.5,     126.2,     285.7,       1.5);         ( 582567.2, 4130374.5,     125.4,     285.7,       1.5);
   ( 582597.2, 4130374.5,     125.0,     285.7,       1.5);         ( 582627.2, 4130374.5,     124.2,     285.7,       1.5);
   ( 582657.2, 4130374.5,     123.1,     285.7,       1.5);         ( 582687.2, 4130374.5,     122.1,     285.7,       1.5);
   ( 582717.2, 4130374.5,     121.4,     285.7,       1.5);         ( 582747.2, 4130374.5,     120.8,     285.7,       1.5);
   ( 582777.2, 4130374.5,     120.4,     285.7,       1.5);         ( 582807.2, 4130374.5,     120.1,     285.7,       1.5);
   ( 582147.2, 4130404.5,     136.0,     285.7,       1.5);         ( 582177.2, 4130404.5,     134.3,     285.7,       1.5);
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( 582207.2, 4130404.5,     133.4,     285.7,       1.5);          ( 582237.2, 4130404.5,     133.9,     285.7,       1.5);
( 582267.2, 4130404.5,     132.9,     285.7,       1.5);          ( 582297.2, 4130404.5,     132.7,     285.7,       1.5);
( 582327.2, 4130404.5,     132.0,     285.7,       1.5);          ( 582357.2, 4130404.5,     131.2,     285.7,       1.5);
( 582387.2, 4130404.5,     129.6,     285.7,       1.5);          ( 582417.2, 4130404.5,     129.0,     285.7,       1.5);
( 582447.2, 4130404.5,     128.2,     285.7,       1.5);          ( 582477.2, 4130404.5,     127.4,     285.7,       1.5);
( 582507.2, 4130404.5,     127.6,     285.7,       1.5);          ( 582544.1, 4130404.5,     125.6,     285.7,       1.5);
( 582567.2, 4130404.5,     124.8,     285.7,       1.5);          ( 582597.2, 4130404.5,     124.2,     285.7,       1.5);
( 582627.2, 4130404.5,     123.4,     285.7,       1.5);          ( 582657.2, 4130404.5,     122.3,     285.7,       1.5);
( 582687.2, 4130404.5,     121.3,     285.7,       1.5);          ( 582717.2, 4130404.5,     121.0,     285.7,       1.5);
( 582747.2, 4130404.5,     120.5,     285.7,       1.5);          ( 582777.2, 4130404.5,     120.3,     285.7,       1.5);
( 582807.2, 4130404.5,     119.9,     285.7,       1.5);
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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE  48
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                                  *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                                       (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

               NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                        *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                                    (METERS/SEC)

                                                     1.54,   3.09,   5.14,   8.23,  10.80,
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 *** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
 *** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                       PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\met data\745090.SFC                                                      Met Version:  14134
   Profile file:   ..\met data\745090.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:    23244                  Upper air station no.:    23230
                  Name: UNKNOWN                                    Name: OAKLAND/WSO_AP
                  Year:   2009                                     Year:   2009

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 09 01 01   1 01  -12.1  0.213 -9.000 -9.000 -999.  236.     72.6  0.09   0.54   1.00    2.86    1.   10.0  282.5    2.0
 09 01 01   1 02  -14.9  0.261 -9.000 -9.000 -999.  321.    109.2  0.09   0.54   1.00    3.36   18.   10.0  282.0    2.0
 09 01 01   1 03   -9.1  0.160 -9.000 -9.000 -999.  158.     40.7  0.09   0.54   1.00    2.36   24.   10.0  282.0    2.0
 09 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  281.4    2.0
 09 01 01   1 05   -3.9  0.075 -9.000 -9.000 -999.   49.      9.8  0.09   0.54   1.00    1.76   23.   10.0  281.4    2.0
 09 01 01   1 06   -9.1  0.159 -9.000 -9.000 -999.  153.     40.5  0.09   0.54   1.00    2.36    2.   10.0  280.9    2.0
 09 01 01   1 07   -9.1  0.159 -9.000 -9.000 -999.  153.     40.5  0.09   0.54   1.00    2.36   15.   10.0  280.9    2.0
 09 01 01   1 08   -4.7  0.084 -9.000 -9.000 -999.   61.     11.7  0.15   0.54   0.73    1.76  323.   10.0  280.9    2.0
 09 01 01   1 09   -4.9  0.212 -9.000 -9.000 -999.  234.    179.0  0.15   0.54   0.38    2.36  357.   10.0  280.4    2.0
 09 01 01   1 10    5.7  0.163  0.241  0.014   89.  159.    -69.3  0.09   0.54   0.25    1.76   11.   10.0  280.9    2.0
 09 01 01   1 11   12.2 -9.000 -9.000 -9.000  158. -999. -99999.0  0.24   0.54   0.21    0.00    0.   10.0  280.9    2.0
 09 01 01   1 12   16.0  0.426  0.456  0.016  216.  668.   -442.4  0.15   0.54   0.19    4.36  346.   10.0  281.4    2.0
 09 01 01   1 13   16.6  0.236  0.493  0.015  263.  305.    -71.8  0.36   0.54   0.19    1.76  253.   10.0  281.4    2.0
 09 01 01   1 14   14.2 -9.000 -9.000 -9.000  297. -999. -99999.0  0.24   0.54   0.20    0.00    0.   10.0  282.0    2.0
 09 01 01   1 15   44.9 -9.000 -9.000 -9.000  387. -999. -99999.0  0.24   0.54   0.23    0.00    0.   10.0  283.8    2.0
 09 01 01   1 16   13.2 -9.000 -9.000 -9.000  410. -999. -99999.0  0.24   0.54   0.31    0.00    0.   10.0  284.1    2.0
 09 01 01   1 17  -12.3  0.130 -9.000 -9.000 -999.  112.     16.2  0.15   0.54   0.55    2.36  351.   10.0  282.1    2.0
 09 01 01   1 18   -9.3  0.106 -9.000 -9.000 -999.   83.     11.6  0.36   0.54   1.00    1.76  297.   10.0  282.1    2.0
 09 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  281.1    2.0
 09 01 01   1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  281.1    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  281.1    2.0
 09 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  281.1    2.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  281.1    2.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.24   0.54   1.00    0.00    0.   10.0  280.1    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01    10.0 1    1.    2.86   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
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 *** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                   ***        09/13/19
 *** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                       ***        10:51:08
                                                                                                                      PAGE  50
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                             *** THE PERIOD ( 43872 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: HAUL     ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    , . . .       ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                         ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

      X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        582267.23    4129774.47        0.10761                         582297.23    4129774.47        0.13900
        582327.23    4129774.47        0.18298                         582357.23    4129774.47        0.24310
        582387.23    4129774.47        0.33149                         582417.23    4129774.47        0.45634
        582447.23    4129774.47        0.62943                         582477.23    4129774.47        0.87006
        582507.23    4129774.47        1.13100                         582537.23    4129774.47        1.39751
        582567.23    4129774.47        1.57073                         582597.23    4129774.47        1.62071
        582627.23    4129774.47        1.55719                         582657.23    4129774.47        1.40662
        582687.23    4129774.47        1.24099                         582717.23    4129774.47        1.06727
        582747.23    4129774.47        0.90214                         582237.23    4129804.47        0.08742
        582267.23    4129804.47        0.11005                         582297.23    4129804.47        0.14126
        582327.23    4129804.47        0.18722                         582357.23    4129804.47        0.25130
        582387.23    4129804.47        0.34001                         582417.23    4129804.47        0.49253
        582447.23    4129804.47        0.70743                         582477.23    4129804.47        1.01613
        582507.23    4129804.47        1.36342                         582537.23    4129804.47        1.68493
        582567.23    4129804.47        1.89297                         582597.23    4129804.47        1.91259
        582627.23    4129804.47        1.78614                         582657.23    4129804.47        1.57377
        582687.23    4129804.47        1.35495                         582717.23    4129804.47        1.13986
        582237.23    4129834.47        0.08798                         582267.23    4129834.47        0.11158
        582297.23    4129834.47        0.14328                         582327.23    4129834.47        0.18656
        582357.23    4129834.47        0.24894                         582387.23    4129834.47        0.34404
        582417.23    4129834.47        0.53312                         582447.23    4129834.47        0.78347
        582477.23    4129834.47        1.21858                         582507.23    4129834.47        1.69268
        582537.23    4129834.47        2.11405                         582567.23    4129834.47        2.32784
        582597.23    4129834.47        2.26890                         582627.23    4129834.47        2.03498
        582657.23    4129834.47        1.75723                         582687.23    4129834.47        1.47067
        582717.23    4129834.47        1.20855                         582207.23    4129864.47        0.07264
        582237.23    4129864.47        0.08996                         582267.23    4129864.47        0.11307
        582297.23    4129864.47        0.14538                         582327.23    4129864.47        0.18729
        582357.23    4129864.47        0.25504                         582387.23    4129864.47        0.36252
        582417.23    4129864.47        0.59986                         582447.23    4129864.47        0.93736
        582477.23    4129864.47        1.49703                         582507.23    4129864.47        2.17371
        582537.23    4129864.47        2.72454                         582567.23    4129864.47        2.89794
        582597.23    4129864.47        2.71250                         582627.23    4129864.47        2.34214
        582657.23    4129864.47        1.95157                         582687.23    4129864.47        1.58351
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          582717.23    4129864.47         1.26756                    582177.23    4129894.47         0.06034
          582207.23    4129894.47         0.07463                    582237.23    4129894.47         0.09249
          582267.23    4129894.47         0.11689                    582297.23    4129894.47         0.15131
          582327.23    4129894.47         0.19754                    582357.23    4129894.47         0.27233
          582387.23    4129894.47         0.41644                    582417.23    4129894.47         0.68860
          582447.23    4129894.47         1.14538                    582477.23    4129894.47         1.93842

 *** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                 ***        09/13/19
 *** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                     ***        10:51:08
                                                                                                                    PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                              *** THE PERIOD ( 43872 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: HAUL     ***
                                  INCLUDING SOURCE(S):     L0000001      , L0000002      , L0000003      , L0000004      , L0000005      ,
                 L0000006      , L0000007      , L0000008      , L0000009      , L0000010      , L0000011      , L0000012      , L0000013      ,
                 L0000014      , L0000015      , L0000016      , L0000017      , L0000018      , L0000019      , L0000020      , L0000021      ,
                 L0000022      , L0000023      , L0000024      , L0000025      , L0000026      , L0000027      , L0000028      ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                         ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

        X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
          582507.23    4129894.47         2.90890                    582537.23    4129894.47         3.60995
          582567.23    4129894.47         3.64124                    582597.23    4129894.47         3.23201
          582627.23    4129894.47         2.68346                    582657.23    4129894.47         2.14707
          582687.23    4129894.47         1.68883                    582717.23    4129894.47         1.32159
          582147.23    4129924.47         0.05378                    582177.23    4129924.47         0.06321
          582207.23    4129924.47         0.07580                    582237.23    4129924.47         0.09463
          582267.23    4129924.47         0.12124                    582297.23    4129924.47         0.16310
          582327.23    4129924.47         0.22944                    582357.23    4129924.47         0.33195
          582387.23    4129924.47         0.50662                    582417.23    4129924.47         0.86463
          582447.23    4129924.47         1.44141                    582477.23    4129924.47         2.50565
          582507.23    4129924.47         4.05020                    582537.23    4129924.47         4.92266
          582567.23    4129924.47         4.68586                    582597.23    4129924.47         3.88571
          582627.23    4129924.47         3.03781                    582657.23    4129924.47         2.32950
          582687.23    4129924.47         1.78005                    582717.23    4129924.47         1.36129
          582747.23    4129924.47         1.03853                    582147.23    4129954.47         0.05661
          582177.23    4129954.47         0.06819                    582207.23    4129954.47         0.07919
          582237.23    4129954.47         0.09689                    582267.23    4129954.47         0.12696
          582297.23    4129954.47         0.17785                    582327.23    4129954.47         0.25944
          582357.23    4129954.47         0.38089                    582387.23    4129954.47         0.58648
          582417.23    4129954.47         0.95625                    582447.23    4129954.47         1.69655
          582477.23    4129954.47         3.25254                    582507.23    4129954.47         6.17056
          582537.23    4129954.47         7.33871                    582567.23    4129954.47         6.16788
          582597.23    4129954.47         4.62153                    582627.23    4129954.47         3.39415
          582657.23    4129954.47         2.49818                    582687.23    4129954.47         1.85560
          582717.23    4129954.47         1.38904                    582747.23    4129954.47         1.04896
          582777.23    4129954.47         0.78861                    582147.23    4129984.47         0.05744
          582177.23    4129984.47         0.07197                    582207.23    4129984.47         0.08745
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        582237.23    4129984.47        0.10754                       582267.23    4129984.47        0.13732
        582297.23    4129984.47        0.19663                       582327.23    4129984.47        0.28748
        582357.23    4129984.47        0.41634                       582387.23    4129984.47        0.63594
        582417.23    4129984.47        1.01201                       582447.23    4129984.47        1.90460
        582477.23    4129984.47        4.10187                       582537.23    4129984.47       11.87330
        582567.23    4129984.47        7.98139                       582597.23    4129984.47        5.35891
        582627.23    4129984.47        3.70973                       582657.23    4129984.47        2.63025
        582687.23    4129984.47        1.90496                       582717.23    4129984.47        1.40763
        582747.23    4129984.47        1.05682                       582777.23    4129984.47        0.78522
        582807.23    4129984.47        0.59942                       582147.23    4130014.47        0.05724
        582177.23    4130014.47        0.07398                       582207.23    4130014.47        0.09439
        582237.23    4130014.47        0.11914                       582267.23    4130014.47        0.15632
        582297.23    4130014.47        0.20592                       582327.23    4130014.47        0.30102

*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                     ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                         ***        10:51:08
                                                                                                                       PAGE  52
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                             *** THE PERIOD ( 43872 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: HAUL     ***
                                 INCLUDING SOURCE(S):      L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    ,  . . .      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                       ** CONC OF OTHER     IN MICROGRAMS/M**3                          **

      X-COORD  (M)  Y-COORD  (M)       CONC                        X-COORD  (M)  Y-COORD  (M)       CONC
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        582357.23    4130014.47        0.44369                       582387.23    4130014.47        0.67081
        582417.23    4130014.47        1.09795                       582447.23    4130014.47        2.12013
        582480.29    4130004.67        5.14479 MER Location          582537.23    4130014.47       18.37632
        582567.23    4130014.47        9.85232                       582597.23    4130014.47        6.04192
        582627.23    4130014.47        3.96982                       582657.23    4130014.47        2.73148
        582687.23    4130014.47        1.93974                       582717.23    4130014.47        1.41247
        582747.23    4130014.47        1.04979                       582777.23    4130014.47        0.78682
        582807.23    4130014.47        0.59401                       582147.23    4130044.47        0.05966
        582177.23    4130044.47        0.07392                       582207.23    4130044.47        0.09765
        582237.23    4130044.47        0.12858                       582267.23    4130044.47        0.16650
        582297.23    4130044.47        0.22647                       582327.23    4130044.47        0.32004
        582357.23    4130044.47        0.47428                       582387.23    4130044.47        0.73511
        582417.23    4130044.47        1.22518                       582447.23    4130044.47        2.43026
        582537.23    4130044.47       25.14350                       582567.23    4130044.47       11.93563
        582597.23    4130044.47        6.70730                       582627.23    4130044.47        4.19466
        582657.23    4130044.47        2.80150                       582687.23    4130044.47        1.95223
        582717.23    4130044.47        1.40288                       582747.23    4130044.47        1.03374
        582777.23    4130044.47        0.77968                       582807.23    4130044.47        0.59755
        582147.23    4130074.47        0.06364                       582177.23    4130074.47        0.07930
        582207.23    4130074.47        0.10300                       582237.23    4130074.47        0.13811
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        582267.23    4130074.47        0.18558                      582297.23    4130074.47        0.24884
        582327.23    4130074.47        0.35054                      582357.23    4130074.47        0.52556
        582387.23    4130074.47        0.82196                      582417.23    4130074.47        1.40600
        582447.23    4130074.47        2.77350                      582537.23    4130074.47       32.90133
        582567.23    4130074.47       13.82681                      582597.23    4130074.47        7.16406
        582627.23    4130074.47        4.31664                      582657.23    4130074.47        2.82086
        582687.23    4130074.47        1.93356                      582717.23    4130074.47        1.37439
        582747.23    4130074.47        1.00631                      582777.23    4130074.47        0.75730
        582807.23    4130074.47        0.58336                      582147.23    4130104.47        0.07076
        582177.23    4130104.47        0.09028                      582207.23    4130104.47        0.11567
        582237.23    4130104.47        0.15835                      582267.23    4130104.47        0.21027
        582297.23    4130104.47        0.28065                      582327.23    4130104.47        0.40210
        582357.23    4130104.47        0.59514                      582387.23    4130104.47        0.92960
        582417.23    4130104.47        1.55772                      582447.23    4130104.47        2.95445
        582567.23    4130104.47       14.86998                      582597.23    4130104.47        7.34085
        582627.23    4130104.47        4.34510                      582657.23    4130104.47        2.79215
        582687.23    4130104.47        1.89452                      582717.23    4130104.47        1.33309
        582747.23    4130104.47        0.97018                      582777.23    4130104.47        0.72767
        582807.23    4130104.47        0.56072                      582147.23    4130134.47        0.08020
        582177.23    4130134.47        0.10697                      582207.23    4130134.47        0.13807

*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE  53
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                             *** THE PERIOD ( 43872 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: HAUL     ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    ,  . . .      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                       ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

      X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)        CONC
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        582237.23    4130134.47        0.18256                      582267.23    4130134.47        0.24034
        582297.23    4130134.47        0.32299                      582327.23    4130134.47        0.45732
        582357.23    4130134.47        0.66558                      582387.23    4130134.47        1.02631
        582417.23    4130134.47        1.65544                      582447.23    4130134.47        2.98825
        582476.79    4130149.05        5.64203                      582507.08    4130144.48       14.23554
        582567.23    4130134.47       15.06401                      582597.23    4130134.47        7.36989
        582627.23    4130134.47        4.28632                      582657.23    4130134.47        2.72069
        582687.23    4130134.47        1.82388                      582717.23    4130134.47        1.27397
        582747.23    4130134.47        0.92384                      582777.23    4130134.47        0.69322
        582807.23    4130134.47        0.53538                      582147.23    4130164.47        0.09878
        582177.23    4130164.47        0.12697                      582207.23    4130164.47        0.15854
        582237.23    4130164.47        0.20659                      582267.23    4130164.47        0.26980
        582297.23    4130164.47        0.36229                      582327.23    4130164.47        0.49416
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Model Output

Unit Emission Rate (1 g/s)

582357.23	4130164.47	0.72755	582387.23	4130164.47	1.09599
582417.23	4130164.47	1.71517	582447.23	4130164.47	2.97046
582477.23	4130164.47	5.65082	582507.23	4130164.47	14.63437
582567.23	4130164.47	14.89537	582597.23	4130164.47	7.22550
582627.23	4130164.47	4.15231	582657.23	4130164.47	2.60335
582687.23	4130164.47	1.72824	582717.23	4130164.47	1.20094
582747.23	4130164.47	0.87012	582777.23	4130164.47	0.65416
582807.23	4130164.47	0.50726	582147.23	4130194.47	0.11537
582177.23	4130194.47	0.14251	582207.23	4130194.47	0.17786
582237.23	4130194.47	0.22791	582267.23	4130194.47	0.29683
582297.23	4130194.47	0.39001	582327.23	4130194.47	0.54090
582357.23	4130194.47	0.77335	582387.23	4130194.47	1.12361
582417.23	4130194.47	1.73514	582447.23	4130194.47	2.94616
582477.23	4130194.47	5.69140	582507.23	4130194.47	14.61295
582553.15	4130178.24	22.82228	582567.23	4130194.47	14.57338
582597.23	4130194.47	7.00388	582627.23	4130194.47	3.95709
582657.23	4130194.47	2.44969	582687.23	4130194.47	1.61433
582717.23	4130194.47	1.11809	582747.23	4130194.47	0.81049
582777.23	4130194.47	0.61284	582807.23	4130194.47	0.47752
582147.23	4130224.47	0.12685	582177.23	4130224.47	0.15634
582207.23	4130224.47	0.19592	582237.23	4130224.47	0.25053
582267.23	4130224.47	0.32221	582297.23	4130224.47	0.42840
582327.23	4130224.47	0.57835	582357.23	4130224.47	0.80610
582387.23	4130224.47	1.15045	582417.23	4130224.47	1.74436
582447.23	4130224.47	2.89818	582477.23	4130224.47	5.62274
582507.23	4130224.47	15.01718	582546.72	4130223.86	27.73896
582567.23	4130224.47	14.06297	582597.23	4130224.47	6.66255

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*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                    ***        10:51:08
                                                                                                                  PAGE  54
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                            *** THE PERIOD ( 43872 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: HAUL     ***
                                INCLUDING SOURCE(S):     L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    ,  . . .      ,

                                           *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                      ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

      X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)   Y-COORD (M)        CONC
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        582627.23    4130224.47        3.70279                        582657.23    4130224.47        2.26182
        582687.23    4130224.47        1.48197                        582717.23    4130224.47        1.02659
        582747.23    4130224.47        0.74807                        582777.23    4130224.47        0.56915
        582807.23    4130224.47        0.44647                        582147.23    4130254.47        0.14199
        582177.23    4130254.47        0.17357                        582207.23    4130254.47        0.21586
        582237.23    4130254.47        0.27217                        582267.23    4130254.47        0.34880
        582297.23    4130254.47        0.45442                        582327.23    4130254.47        0.60636
        582357.23    4130254.47        0.82389                        582387.23    4130254.47        1.16715
        582417.23    4130254.47        1.71954                        582447.23    4130254.47        2.83207
        582477.23    4130254.47        5.49478                        582507.23    4130254.47       14.77749
        582545.50    4130254.16       28.31489                        582567.23    4130254.47       13.54719
        582597.23    4130254.47        6.24055                        582627.23    4130254.47        3.38480
        582657.23    4130254.47        2.03909                        582687.23    4130254.47        1.33129
        582717.23    4130254.47        0.92949                        582747.23    4130254.47        0.68411
        582777.23    4130254.47        0.52514                        582807.23    4130254.47        0.41572
        582147.23    4130284.47        0.15790                        582177.23    4130284.47        0.19362
        582207.23    4130284.47        0.23650                        582237.23    4130284.47        0.29712
        582267.23    4130284.47        0.37311                        582297.23    4130284.47        0.48040
        582327.23    4130284.47        0.63007                        582357.23    4130284.47        0.84246
        582387.23    4130284.47        1.16463                        582417.23    4130284.47        1.69209
        582447.23    4130284.47        2.75754                        582477.23    4130284.47        5.24637
        582507.23    4130284.47       14.67568                        582547.33    4130284.47       25.27699
        582567.23    4130284.47       12.79387                        582597.23    4130284.47        5.67807
        582627.23    4130284.47        3.00591                        582657.23    4130284.47        1.79557
        582687.23    4130284.47        1.17842                        582717.23    4130284.47        0.83129
        582747.23    4130284.47        0.61942                        582777.23    4130284.47        0.48085
        582807.23    4130284.47        0.38494                        582147.23    4130314.47        0.17307
        582177.23    4130314.47        0.20974                        582207.23    4130314.47        0.25657
        582237.23    4130314.47        0.31704                        582267.23    4130314.47        0.39704
        582297.23    4130314.47        0.50440                        582327.23    4130314.47        0.65179
        582357.23    4130314.47        0.85683                        582387.23    4130314.47        1.16480
        582417.23    4130314.47        1.64763                        582447.23    4130314.47        2.63227
        582477.23    4130314.47        5.17197                        582507.23    4130314.47       14.76503
        582543.43    4130314.47       28.12789                        582567.23    4130314.47       11.73892
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          582597.23    4130314.47         4.98338                      582627.23    4130314.47         2.58243
          582657.23    4130314.47         1.54714                      582687.23    4130314.47         1.03087
          582717.23    4130314.47         0.74065                      582747.23    4130314.47         0.55886
          582777.23    4130314.47         0.43879                      582807.23    4130314.47         0.35482
          582147.23    4130344.47         0.18883                      582177.23    4130344.47         0.22853
          582207.23    4130344.47         0.27689                      582237.23    4130344.47         0.33469

*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE  55
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                             *** THE PERIOD ( 43872 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: HAUL     ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    , . . .       ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                         ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

        X-COORD (M)   Y-COORD (M)        CONC                            X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
          582267.23    4130344.47         0.41229                      582297.23    4130344.47         0.51918
          582327.23    4130344.47         0.65929                      582357.23    4130344.47         0.85515
          582387.23    4130344.47         1.13541                      582417.23    4130344.47         1.57971
          582447.23    4130344.47         2.40200                      582477.23    4130344.47         4.80060
          582507.23    4130344.47        13.69921                      582543.89    4130339.34        26.07207
          582567.23    4130344.47        10.18538                      582597.23    4130344.47         4.12278
          582627.23    4130344.47         2.13822                      582657.23    4130344.47         1.30238
          582687.23    4130344.47         0.89288                      582717.23    4130344.47         0.65194
          582747.23    4130344.47         0.50146                      582777.23    4130344.47         0.39931
          582807.23    4130344.47         0.32556                      582147.23    4130374.47         0.20103
          582177.23    4130374.47         0.24443                      582207.23    4130374.47         0.29503
          582237.23    4130374.47         0.35175                      582267.23    4130374.47         0.43233
          582297.23    4130374.47         0.53261                      582327.23    4130374.47         0.66331
          582357.23    4130374.47         0.84709                      582387.23    4130374.47         1.08489
          582417.23    4130374.47         1.52127                      582447.23    4130374.47         2.36606
          582477.23    4130374.47         4.38528                      582507.23    4130374.47        12.43508
          582544.12    4130374.47        22.35354                      582567.23    4130374.47         8.23700
          582597.23    4130374.47         3.19816                      582627.23    4130374.47         1.70598
          582657.23    4130374.47         1.08483                      582687.23    4130374.47         0.76318
          582717.23    4130374.47         0.57198                      582747.23    4130374.47         0.44713
          582777.23    4130374.47         0.36045                      582807.23    4130374.47         0.29750
          582147.23    4130404.47         0.21400                      582177.23    4130404.47         0.25696
          582207.23    4130404.47         0.30726                      582237.23    4130404.47         0.36471
          582267.23    4130404.47         0.44249                      582297.23    4130404.47         0.53732
          582327.23    4130404.47         0.66414                      582357.23    4130404.47         0.80612
          582387.23    4130404.47         1.06662                      582417.23    4130404.47         1.48165
```

Model Output
Unit Emission Rate (1 g/s)

```
582447.23    4130404.47         2.22740                   582477.23    4130404.47         3.96398
582507.23    4130404.47        10.49949                   582544.12    4130404.47        16.76042
582567.23    4130404.47         5.57150                   582597.23    4130404.47         2.31461
582627.23    4130404.47         1.33477                   582657.23    4130404.47         0.89207
582687.23    4130404.47         0.64810                   582717.23    4130404.47         0.49764
582747.23    4130404.47         0.39565                   582777.23    4130404.47         0.32336
582807.23    4130404.47         0.26960
```

Model Output
Unit Emission Rate (1 g/s)

```
 *** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                ***        09/13/19
 *** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                    ***        10:51:08
                                                                                                                   PAGE  62
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

                                        *** THE SUMMARY OF MAXIMUM PERIOD ( 43872 HRS) RESULTS ***

                                    ** CONC OF OTHER    IN MICROGRAMS/M**3                              **

                                                                                                              NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

HAUL      1ST HIGHEST VALUE IS      32.90133 AT (  582537.23,  4130074.47,   127.11,   285.68,     1.50)  DC
          2ND HIGHEST VALUE IS      28.31489 AT (  582545.50,  4130254.16,   127.52,   285.68,     1.50)  DC
          3RD HIGHEST VALUE IS      28.12789 AT (  582543.43,  4130314.47,   127.15,   285.68,     1.50)  DC
          4TH HIGHEST VALUE IS      27.73896 AT (  582546.72,  4130223.86,   127.82,   285.68,     1.50)  DC
          5TH HIGHEST VALUE IS      26.07207 AT (  582543.89,  4130339.34,   126.81,   285.68,     1.50)  DC
          6TH HIGHEST VALUE IS      25.27699 AT (  582547.33,  4130284.47,   127.30,   285.68,     1.50)  DC
          7TH HIGHEST VALUE IS      25.14350 AT (  582537.23,  4130044.47,   126.47,   285.68,     1.50)  DC
          8TH HIGHEST VALUE IS      22.82228 AT (  582553.15,  4130178.24,   127.49,   285.68,     1.50)  DC
          9TH HIGHEST VALUE IS      22.35354 AT (  582544.12,  4130374.47,   126.19,   285.68,     1.50)  DC
         10TH HIGHEST VALUE IS      18.37632 AT (  582537.23,  4130014.47,   125.80,   285.68,     1.50)  DC

ONSITE    1ST HIGHEST VALUE IS      64.92184 AT (  582480.29,  4130004.67,   128.05,   285.68,     1.50)  DC
          2ND HIGHEST VALUE IS      36.38912 AT (  582477.23,  4129984.47,   128.12,   285.68,     1.50)  DC
          3RD HIGHEST VALUE IS      27.51444 AT (  582537.23,  4130044.47,   126.47,   285.68,     1.50)  DC
          4TH HIGHEST VALUE IS      26.31461 AT (  582537.23,  4130014.47,   125.80,   285.68,     1.50)  DC
          5TH HIGHEST VALUE IS      24.22111 AT (  582537.23,  4130074.47,   127.11,   285.68,     1.50)  DC
          6TH HIGHEST VALUE IS      23.15478 AT (  582507.23,  4129954.47,   127.31,   285.68,     1.50)  DC
          7TH HIGHEST VALUE IS      22.86884 AT (  582537.23,  4129984.47,   125.87,   285.68,     1.50)  DC
          8TH HIGHEST VALUE IS      18.97543 AT (  582477.23,  4129954.47,   128.20,   285.68,     1.50)  DC
          9TH HIGHEST VALUE IS      17.40118 AT (  582537.23,  4129954.47,   125.84,   285.68,     1.50)  DC
         10TH HIGHEST VALUE IS      14.33754 AT (  582507.23,  4129924.47,   128.06,   285.68,     1.50)  DC

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

MER Location

```
*** AERMOD - VERSION  18081 ***   *** Canyon Crossing, Construction HRA                                    ***        09/13/19
*** AERMET - VERSION  14134 ***   *** Cupertino, CA                                                        ***        10:51:08
                                                                                                                      PAGE  63
*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of        15496 Informational Message(s)

A Total of        43872 Hours Were Processed

A Total of        14061 Calm Hours Identified

A Total of         1435 Missing Hours Identified (  3.27 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

Appendix C. Construction Risk Calculations

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Table C1
Residential MER Concentrations for Risk Calculations

Contaminant (a)	Source (b)		Model Output[1] (µg/m^3) (c)	Emission Rates[2] (g/s) (d)	MER Conc. (µg/m^3) (e)	Total MER Conc. Annual Average (µg/m^3) (f)
Residential Receptors - Unmitigated						
DPM	2020	On-Site Emissions	64.92	1.11E-02	7.19E-01	7.19E-01
		Truck Route	5.14	5.50E-06	2.83E-05	
	2021	On-Site Emissions	64.92	9.93E-03	6.45E-01	6.45E-01
		Truck Route	5.14	8.93E-07	4.60E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	64.92	1.04E-02	6.76E-01	6.76E-01
		Truck Route	5.14	5.32E-06	2.74E-05	
	2021	On-Site Emissions	64.92	9.47E-03	6.15E-01	6.15E-01
		Truck Route	5.14	8.19E-07	4.21E-06	
			Maximum Annual $PM_{2.5}$ Concentration			**0.68**
Residential Receptors - Mitigated Run: Tier 4 Interim Engines for eq. > 50 HP						
DPM	2020	On-Site Emissions	64.92	1.34E-03	8.68E-02	8.69E-02
		Truck Route	5.14	5.50E-06	2.83E-05	
	2021	On-Site Emissions	64.92	1.44E-03	9.37E-02	9.37E-02
		Truck Route	5.14	8.93E-07	4.60E-06	
			Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations			
$PM_{2.5}$	2020	On-Site Emissions	64.92	1.34E-03	8.68E-02	8.69E-02
		Truck Route	5.14	5.32E-06	2.74E-05	
	2021	On-Site Emissions	64.92	1.44E-03	9.37E-02	9.37E-02
		Truck Route	5.14	8.19E-07	4.21E-06	
			Maximum Annual $PM_{2.5}$ Concentration			**0.09**

Maximum Exposed Receptor (MER) UTM coordinates: 582480.29E, 4130004.67N

[1] Model Output at the MER based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C2
Quantification of Health Risks for Off-site Residents

Source		MER	Weight	Contaminant			Dose (by age bin)		Carcinogenic Risks (by age bin)		**Total Cancer Risk**	**Chronic Hazards** [3]	
		Conc.	Fraction		URF	CPF	3rd Trimester	0 < 2 years	3rd Trimester	0 < 2 years		Chronic REL	RESP
		(μg/m³)			(μg/m³)⁻¹	(mg/kg/day)⁻¹	(mg/kg-day)	(mg/kg-day)	per million	per million	per million	(μg/m³)	
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(k)	(l)	(o)	(p)	(q)
Residential Receptors - Unmitigated													
2020	On & Off-Site	7.19E-01	1.00E+00	DPM	3.0E-04	1.1E+00	2.49E-04	7.51E-04	7.9	32.4	40.3	5.0E+00	1.44E-01
2021	On & Off-Site	6.45E-01	1.00E+00		3.0E-04	1.1E+00		6.74E-04		18.1	18.1	5.0E+00	1.29E-01
											58.4		**0.273**
Residential Receptors - Mitigated Run: Tier 4 Interim Engines for eq. > 50 HP													
2020	On & Off-Site	8.69E-02	1.00E+00	DPM	3.0E-04	1.1E+00	3.01E-05	9.08E-05	1.0	3.9	4.9	5.0E+00	1.74E-02
2021	On & Off-Site	9.37E-02	1.00E+00		3.0E-04	1.1E+00		9.79E-05		2.6	2.6	5.0E+00	1.87E-02
											7.5		**0.036**

Maximum Exposed Receptor (MER) UTM coordinates: 582480.29E, 4130004.67N

		3rd Trimester	0 < 2 years
	OEHHA age bin	3rd Trimester	0 < 2 years
	exposure year(s)	2020	2020-2021
Dose Exposure Factors:	xposure frequency (days/year)	350	350
	inhalation rate (L/kg-day) [1]	361	1090
	inhalation absorption factor	1	1
	conversion factor (mg/μg; m³/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10	10
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06
	fraction of time at home	0.85	0.85

exposure durations per age bin		exposure durations (year)	
Construction Year	Risk Scalar [2]	3rd Trimester	0 < 2 years
2020	0.59	0.25	0.34
2021	0.21		0.21
Total	0.80	0.25	0.55

---

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Risk scalar determined for each year of construction to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

APPENDIX C:
NOISE DATA

Fundamentals of Noise

NOISE

Noise is most often defined as unwanted sound; whether it is loud, unpleasant, unexpected, or otherwise undesirable. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness."

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Decibel (dB).** A unitless measure of sound, expressed on a logarithmic scale and with respect to a defined reference sound pressure. The standard reference pressure is 20 micropascals (20 μPa).

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM. NOTE: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive – that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.

- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.

- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Characteristics of Sound

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is that pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves.

Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). Loudness or amplitude is measured in dB, frequency or pitch is measured in Hertz [Hz] or cycles per second, and duration or time variations is measured in seconds or minutes.

Amplitude

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1 presents the subjective effect of changes in sound pressure levels. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound.

Table 1 Noise Perceptibility

Change in dB	Noise Level
± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies, David A. and Colin H. Hansen. 2009. *Engineering Noise Control: Theory and Practice*. 4th ed. New York: Spon Press.

Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all, but are "felt" more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to approximate the response of the human ear. The A-weighted noise level has been found to correlate well with people's judgments of the "noisiness" of different sounds and has been used for many years as a measure of community and industrial noise. Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet rural or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

Duration

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2, L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These "n" values are typically used to demonstrate compliance for stationary noise sources with many cities' noise ordinances. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and many local jurisdictions use an adjusted 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment (or "penalty") of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00 PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 PM and 10:00 PM. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher). The CNEL or L_{dn} metrics are commonly applied to the assessment of roadway and airport-related noise sources.

Sound Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single-point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would be 79 dBA, and at 200 feet it would be 73 dBA. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance over a reflective ("hard site") surface such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by an additional 1.5 dB for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 2 shows typical noise levels from familiar sources.

Table 2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. As with noise, vibration can be described by both its amplitude and frequency. Vibration displacement is the distance that a point on a surface moves away from its original static position; velocity is the instantaneous speed that a point on a surface moves; and acceleration is the rate of change of the speed. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage and RMS is typically more suitable for evaluating human response.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 3 displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

Table 3 Human Reaction to Typical Vibration Levels

Vibration Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e. not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: California Department of Transportation (Caltrans). 2004, June. Transportation- and Construction-Induced Vibration Guidance Manual. Prepared by ICF International.

LOCAL REGULATIONS AND STANDARDS

NOISE

The noise environment is an accumulation of many different sources, ranging from human voices to major sources such as freeway traffic. The degree to which noise becomes an annoyance depends on a variety of factors including noise level, time of day, background sounds, and surrounding land use.

COMMUNITY NOISE FUNDAMENTALS

The three elements of community noise are noise level, noise spectrum, and variation in noise level with time. Noise level is measured in decibels (dB). Noise is composed of various frequencies within a noise spectrum that define the character of the noise. Since human hearing is more sensitive to the higher speech frequencies, the A-weighted frequency network is applied, in accordance with national and international standards, to adjust the measured noise level to more closely relate to human perception of loudness.

Noise environments have different characteristics that vary with duration and time of day; for instance a freeway may emit a fairly constant noise level for long periods while an airport may emit many short-term high level noise events punctuated by extended periods of quiet. To provide a standard measure for community noise exposure that takes into account the time-varying characteristics, the State of California adopted the Community Noise Equivalent Level (CNEL) as the standard metric. The CNEL is a 24-hour energy average metric that penalizes evening and nighttime noise, and provides a uniform measure for time-varying noise environments.

NOISE ENVIRONMENT

The noise environment can generally be divided into two categories: transportation-related and non-transportation related noise. Traffic noise is the greatest contributor to noise pollution in Cupertino and one of the most difficult to control through local effort. Two major freeways (Interstate 280 and Highway 85) and four major corridors (Stevens Creek Boulevard, De Anza Boulevard, Homestead Road, and Foothill Boulevard) cross Cupertino. These roadways are utilized not only by local residents and employees, but also by commuters to destinations beyond Cupertino. Heavy-duty trucking operations to and from the Hanson Permanente Cement Plant and Stevens Creek Quarry located in the western foothills near Stevens Creek Boulevard and Foothill Boulevard are also a significant transportation-related noise contributor.

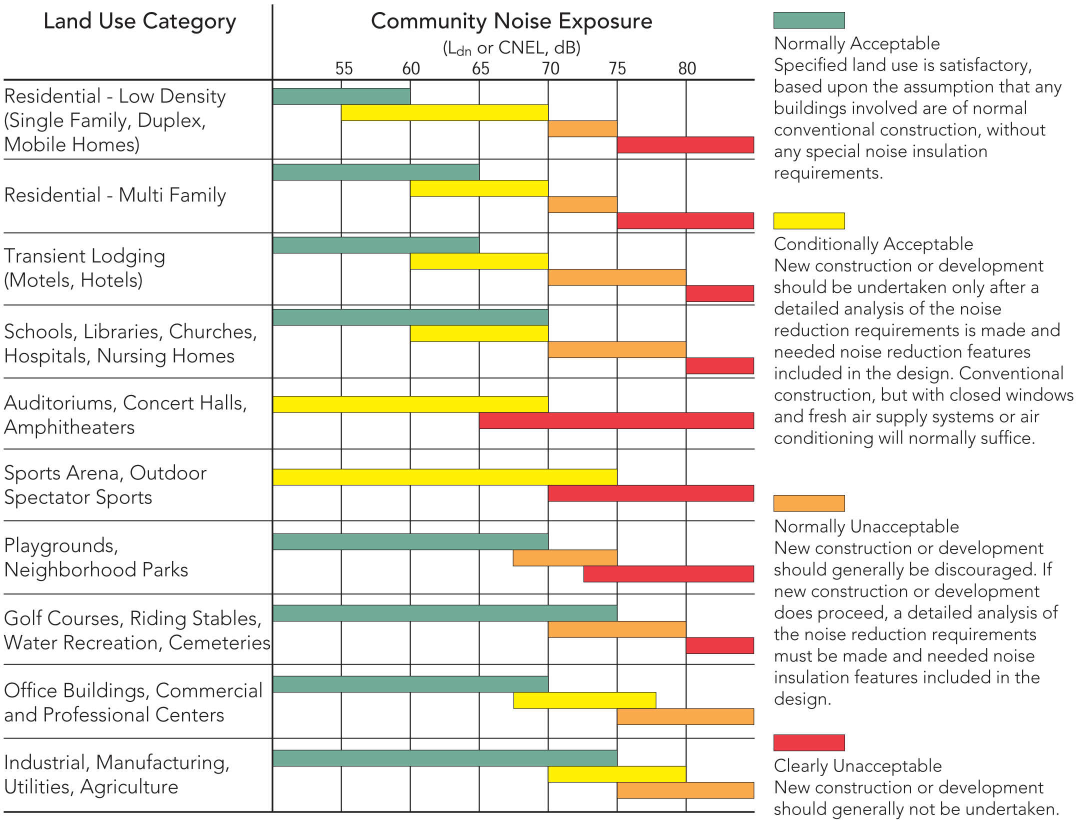
Cupertino receives some aircraft noise from facilities within the region including San Jose International Airport, Moffett Federal Airfield and Palo Alto Airport; however, the Cupertino city limit does not fall within the identified noise contours of any airport. One railroad line passes through the Monta Vista neighborhood and connects with the Hanson Permanente Cement Plant. This freight railway operates at very low frequencies, with approximately three train trips in each direction per week, usually during the daytime or early evening.

Non-transportation noise varies from stationary equipment (e.g., air conditioning units) to construction activity. Regulation to minimize excessive noise from non-transportation sources includes compliance with the City's noise standards that limit certain noise-generating activity during evening and early morning, when ambient noise levels tend to be lower. Advancements in technology to muffle sound also reduce noise from construction equipment and stationary equipment such as compressors and generators.

LAND USE COMPATIBILITY

The Cupertino Municipal Code, Title 10, outlines the maximum noise levels on receiving properties based upon land use types (**Figure HS-8**). Land use decisions and the development review process play a large role in minimizing noise impacts on sensitive land uses. Noise compatibility may be achieved by avoiding the location of conflicting land uses adjacent to one another and incorporating buffers and noise control techniques including setbacks, landscaping, building transitions, site design, and building construction techniques. Selection of the appropriate noise control technique will vary depending on the level of noise that needs to be reduced as well as the location and intended land use.

FIGURE HS-8
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



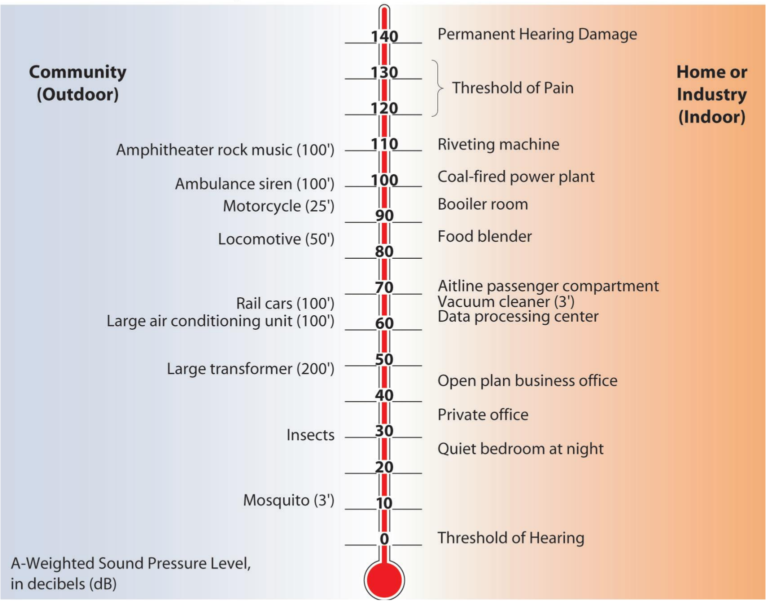
🟩 Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

🟨 Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise reduction features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

🟧 Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

🟥 Clearly Unacceptable
New construction or development should generally not be undertaken.

Representative Sounds and Sound Levels



LOOKING FORWARD

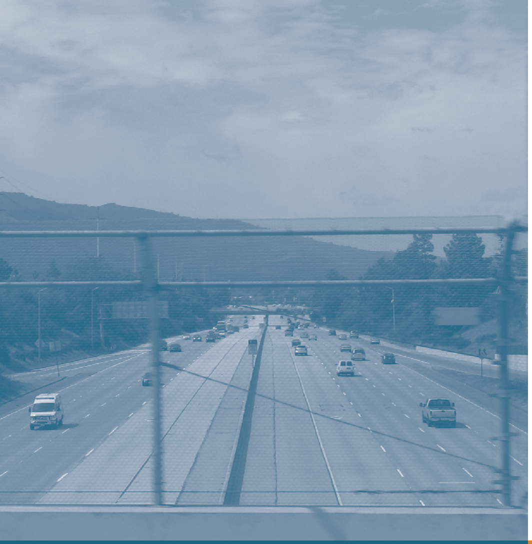
As Cupertino's resident and employee population grows, the City must identify ways to ensure public safety and support the community's high quality of life. Innovative site design and construction techniques are needed to reduce noise in developments near major corridors and where uses are mixed to ensure compatibility. Fire protection and public safety should be enhanced in a manner that provides a high quality of service while continuing to be fiscally responsible. The following are ways the City will address key challenges and opportunities facing Cupertino:

1. **NOISE.**
   As State, regional and local policies encourage mixed-use development near corridors, the City should look to ways to reduce noise impacts on residences near and in such developments through site design, landscaping and construction techniques. Additionally, the City should review locations and site design for sensitive uses including schools, childcare facilities and hospitals to ensure that they are not negatively impacted by noise.

2. **PROJECT DESIGN AND OPERATIONS.**
   Measures such as project and building design, emergency access, operations and maintenance of property, can help developments promote public and fire safety. Such measures will also allow the providers to maintain a high service level, while accommodating future growth.

3. **COMMUNITY PARTICIPATION.**
   The City and service providers should enhance community participation through new and existing programs such as neighborhood watch, emergency preparedness and school programs.

4. **SHARED RESOURCES.**
   The City can enhance emergency, fire safety and public safety services by coordinating programs with service providers and neighboring cities through shared services, mutual aid and agreements.



GOAL HS-8

Minimize noise impacts on the community and maintain a compatible noise environment for existing and future land use

NOISE

The City seeks to ensure that the community continues to enjoy a high quality of life through reduce noise pollution, effective project design and noise management operations.

POLICY HS-8.1: LAND USE DECISION EVALUATION

Use the Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map (see Figure D-1 in Appendix D) and the City Municipal Code to evaluate land use decisions.

POLICY HS-8.2: BUILDING AND SITE DESIGN

Minimize noise impacts through appropriate building and site design.

STRATEGIES:

HS-8.2.1: Commercial Delivery Areas. Locate delivery areas for new commercial and industrial developments away from existing or planned homes.

HS-8.2.2: Noise Control Techniques. Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low-intensity residential uses.

HS-8.2.3: Sound Wall Requirements. Exercise discretion in requiring sound walls to be sure that all other measures of noise control have been explored and that the sound wall blends with the neighborhood. Sound walls should be designed and landscaped to fit into the environment.

POLICY HS-8.3: CONSTRUCTION AND MAINTENANCE ACTIVITIES

Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.

POLICY HS-8.4: FREEWAY DESIGN AND NEIGHBORHOOD NOISE

Ensure that roads and development along Highway 85 and Interstate 280 are designed and improved in a way that minimizes neighborhood noise.

POLICY HS-8.5: NEIGHBORHOODS

Review residents' needs for convenience and safety and prioritize them over the convenient movement of commute or through traffic where practical.

POLICY HS-8.6: TRAFFIC CALMING SOLUTIONS TO STREET NOISE

Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design.

STRATEGY:

HS-8.6.1: Local Improvement.

Modify street design to minimize noise impact to neighbors.

POLICY HS-8.7: REDUCTION OF NOISE FROM TRUCKING OPERATIONS

Work to carry out noise mitigation measures to diminish noise along Foothill and Stevens Creek Boulevards from the quarry and cement plant trucking operations. These measures include regulation of truck speed, the volume of truck activity, and trucking activity hours to avoid late evening and early morning. Alternatives to truck transport, specifically rail, are strongly encouraged when feasible.

STRATEGIES:

HS-8.7.1: Restrictions in the County's Use Permit.

Coordinate with the County to restrict the number of trucks, their speed and noise levels along Foothill and Stevens Creek Boulevards, to the extent allowed in the Use Permit. Ensure that restrictions are monitored and enforced by the County.

HS-8.7.2: Road Improvements to Reduce Truck Impacts.

Consider road improvements such as medians, landscaping, noise attenuating asphalt, and other methods to reduce quarry truck impacts.

Print

Cupertino, CA Municipal Code

CHAPTER 10.48: COMMUNITY NOISE CONTROL*

Section

* Prior ordinance history: Ords. 1022, 1066, 1107, 1149, 1179 and 1278.

10.48.010 Definitions.

For purposes of this chapter:

"Commercial area" means commercially-zoned property as defined in the community zoning ordinance.

"Commercial establishment" means any store, factory, manufacturing or industrial plant used for the sale, manufacturing, fabrication, assembly or storage of goods, wares and merchandise.

"Construction" means any site preparation, assembly, erection, repair, substantial alteration, or similar action, of public or private property, rights-of-way, structures, utilities or similar property, including vehicle pick-up or delivery of construction materials or demolition debris but excluding demolition and grading.

"Daytime" means the period from seven a.m. to eight p.m. on weekdays, and the period from nine a.m. to six p.m. on weekends.

"Decibel (dB)" means a unit for measuring relative sound pressure, logarithmically referenced to a pressure of twenty micronewtons per square meter.

"Demolition" means any dismantling, intentional destruction or removal of structures, utilities, public or private right-of-way surfaces, or similar property.

"Emergency" means any occurrence or set of circumstances involving actual or imminent physical danger, crisis, trauma, or property damage which demands immediate action.

"Emergency work" means any work performed for the purpose of preventing or alleviating the physical danger, trauma, or property damage threatened or caused by an emergency, or restoration of conditions and property to their status prior to the emergency.

"Holidays" means the following days: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

"Industrial area" means industrially-zoned property as defined in the community zoning ordinance.

"Muffler" means a device for reducing or dissipating the sound of escaping gases, or other types of noise, from a mechanical device or engine.

"Multiple-family dwelling unit" means a residential structure containing separate living quarters for two or more families, each unit with similar and common access to the outside.

"NCO" means noise control officer.

"Nighttime" means periods of weekdays from eight p.m. to twelve midnight, and from midnight to seven a.m., and periods on weekends from six p.m. to midnight and from midnight to nine a.m.

"Noise" means any sound which annoys or disturbs humans or which causes or tends to cause an adverse psychological or physiological effect on humans.

"Noise Control Officer (NCO)" means the municipal agency, department or individual having lead responsibility for implementation and enforcement of this chapter, as designated by the City Manager and approved by the City Council.

"Noise disturbance" means any sound which:

1. Endangers or injures the safety or health of humans or animals; or
2. Annoys or disturbs a reasonable person of normal sensitivities; or
3. Endangers or damages personal or real property.

"Noise level" means the same as sound level.

"Nonresidential area" means land zoned for other than residential uses, such as commercial, professional office, industrial or public, as defined in the zoning ordinance, but not including public rights-of-way.

"Person" means any individual, association, partnership, corporation, or public agency, and includes any associated officer, employee or department.

"Property boundary" means an imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person.

"Public area" means any property or structures thereon which are owned, utilized, or controlled by a governmental entity.

"Public right-of-way" means any street, avenue, boulevard, highway, parkway, alley or similar place which is owned or controlled by a governmental entity.

"Residential area" means residentially zoned land as defined in the community zoning ordinance.

"Sound" means a rapid variation in air pressure, which, because of its magnitude and frequency, can be heard by a human with average hearing ability.

"Sound level" means the maximum continuous or repeated peak value measured by the use of a sound level meter and the "A" weighting network, as specified in American National Standards Institute specifications for sound level meters (ANSI S IA - 1971, or the latest revision). The reading obtained in decibels is designated dBA. If the meter response characteristic is not indicated, "SLOW" response shall be used.

"Sound level meter" means an instrument which includes a microphone, amplifier, RMS detector, integrator or time averager, output meter, and weighting networks used to measure sound levels, and meets American National Standards Institute specification S 1.4 - 1971, or latest revision, for Type 1, Type 2 or Type 2A operation.

"Weekday" means any day, Monday through Friday, that is not one of the holidays.

"Weekend" means Saturdays and Sundays that are not holidays.

"Vehicular deliveries or pickups" means the delivery or pickup or the arrival for the delivery or pickup of goods, wares, merchandise and waste material by the use of motor vehicles, including, but not limited to, the operation of motorized commercial ground-sweeping or waste-removal machinery, whether portable or self-propelled.

(Ord. 1871, (part), 2001)

10.48.011 Notice of Violation.

Except in the case where there is clear evidence that a person is acting in good faith and with all deliberate speed to comply with provisions of this chapter after a verbal or written warning of a violation, the continuing violation shall be cause for either a citation, complaint, or an abatement order to be issued by the Noise Control Officer, or other responsible official.

(Ord. 1871, (part), 2001)

10.48.013 Multiple Section Application.

In the event that more than one section of this chapter apply generally and simultaneously to a given noise source or incident, the least restrictive regulation shall be in effect, and the most restrictive limit shall not be invoked, except as sources and incidents are specifically identified in the most restrictive limit which is applicable.

(Ord. 1871, (part), 2001)

10.48.014 Other Remedies.

No provision of this chapter shall be construed to impair any common law or statutory cause of action, or legal remedy therefrom, of any person for injury or damage arising from any violation of this chapter or from other law. The provisions of this chapter are not intended to affect in any manner, violations or arrests of persons for a violation of Section 415 of the California Penal Code or any other provision of State law. The unavailability of a sound level meter to enforce the provisions of this chapter does not preclude the enforcement of any provision of State law.

(Ord. 1871, (part), 2001)

10.48.020 Lead Agency/Official.

The noise control program established by this chapter shall be administered by and the responsibility of, the Noise Control Officer (NCO).

(Ord. 1871, (part), 2001)

10.48.021 Powers of the Noise Control Officer.

In order to implement and enforce this chapter and for the general purpose of noise abatement and control, the NCO shall have, in addition to any other vested authority, the power to:

A. Review of Public and Private Projects. Review of public and private projects, subject to mandatory review or approval by other departments, for compliance with this ordinance, if such projects are likely to cause noise in violation of this chapter;

B. Inspections. Upon presentation of proper credentials and with permission of the property owner or occupant, enter and investigate a potential ordinance violation on any property or place, and inspect any report or records at any reasonable time. If permission is refused or cannot be obtained, a search warrant may be obtained from a court of competent jurisdiction upon showing of probable cause to believe that a violation of this chapter may exist. Such inspection may include administration of any necessary tests.

(Ord. 1871, (part), 2001)

10.48.022 Duties of the Noise Control Officer.

In order to implement and enforce this chapter effectively, the NCO shall within a reasonable time after the effective date of the ordinance codified in this chapter:

A. Guidelines, Testing Methods and Procedures. Develop and promulgate guidelines, testing methods and procedures as required. Any noise measurement procedure used in enforcement of this chapter which tends to underestimate the actual noise level of the source being measured shall not invalidate the enforcement action;

B. Investigate and Pursue Violations. In consonance with provisions of this chapter, investigate and pursue possible violations;

C. Delegation of Authority. Delegate functions, where appropriate under this chapter, to other personnel and to other departments, subject to approval of the City Manager.

(Ord. 1871, (part), 2001)

10.48.023 Duties and Responsibilities of Other Departments.

A. Departmental Actions. All City departments shall, to the fullest extent consistent with other law, carry out their programs in such a manner as to further the policy and intent of this chapter.

B. Project Approval. All departments whose duty it is to review and approve new projects, or changes to existing projects, that may result in the production of disturbing noise, shall consult with the NCO prior to any such approval.

C. Contracts. Any written contract, agreement, purchase order, or other instrument whereby the City is committed to the expenditure of five thousand dollars or more in return for goods or services, and which involves noise-producing activities, shall contain provisions requiring compliance with this chapter.

(Ord. 1871, (part), 2001)

10.48.029 Homeowner or Resident-Conducted Construction Work Exception.

Construction conducted by the homeowner or resident of a single dwelling, using domestic construction tools is allowed on holidays between the hours of nine a.m. and six p.m.

(Ord. 1871, (part), 2001)

10.48.030 Emergency Exception.

The provisions of this chapter shall not apply to the emission of sound for the purpose of alerting persons to the existence of an emergency, or the emission of sound in the performance of emergency work.

(Ord. 1871, (part), 2001)

10.48.031 Special Exceptions.

A. The NCO shall have the authority, consistent with this section, to grant special exceptions which may be requested.

B. Any person seeking a special exception pursuant to this section shall file an application with the NCO. The application shall contain information which demonstrates that bringing the source of sound, or activity for which the special exception is sought, into compliance with this chapter would constitute an unreasonable hardship on the applicant, on the community, or on other persons. Prior to issuance of an exception, the NCO shall notify owners and/or occupants of nearby properties which may be affected by such exceptions. Any individual who claims to be adversely affected by allowance of the special exceptions may file a statement with the NCO containing any information to support his claim. If the NCO finds that a sufficient controversy exists regarding an application, a public hearing may be held.

C. In determining whether to grant or deny the application, the NCO shall balance the hardship to the applicant, the community, and other persons of not granting the special exception against the adverse impact on the health, safety, and welfare of persons affected, the adverse impact on property affected, and any other adverse impacts of granting the special exception. Applicants for special exceptions and persons contesting special exceptions may be required to submit any information the NCO may reasonably require. In granting or denying an application, the NCO shall place on public file a copy of the decision and the reasons for denying or granting the special exception.

D. Special exceptions shall be granted by notice to the applicant containing all necessary conditions, including a time limit on the permitted activity. The special exception shall not become effective until all conditions are agreed to by the applicant. Noncompliance with any condition of the special exception shall terminate it and subject the person holding it to those provisions of this chapter regulating the source of sound or activity for which the special exception was granted.

E. Application for extension of time limits specified in special exceptions or for modification of other substantial conditions shall be treated like applications for initial special exceptions under subsection B of this section.

(Ord. 1871, (part), 2001)

10.48.032 Appeals.

Appeals of any decision of the NCO shall be made to the City Council.

(Ord. 1871, (part), 2001)

10.48.040 Daytime and Nighttime Maximum Noise Levels.

Individual noise sources, or the combination of a group of noise sources located on the same property, shall not produce a noise level exceeding those specified on property zoned as follows, unless specifically provided in another section of this chapter:

Land Use at Point of Origin	**Maximum Noise Level at Complaint Site of Receiving Property**	
	Nighttime	Daytime
Residential	50 dBA	60 dBA
Nonresidential	55 dBA	65 dBA

(Ord. 1921, (part), 2003; Ord. 1871, (part), 2001)

10.48.050 Brief Daytime Incidents.

A. During the daytime period only, brief noise incidents exceeding limits in other sections of this chapter are allowed; providing, that the sum of the noise duration in minutes plus the excess noise level does not exceed twenty in a two-hour period. For example, the following combinations would be allowable:

Noise Increment Above Normal Standard	**Noise Duration in 2-Hour Period**

5 DBA	15 minutes
10 dBA	10 minutes
15 dBA	5 minutes
19 dBA	1 minute

B. For multifamily dwelling interior noise, Section 10.48.054, the sum of excess noise level and duration in minutes of a brief daytime incident shall not exceed ten in any two-hour period, measured at the receiving location.

C. Section 10.48.050A does not apply to Section 10.48.055 (Motor Vehicle Idling).

(Ord. 1871, (part), 2001)

10.48.051 Landscape Maintenance Activities.

The use of motorized equipment for landscape maintenance activities shall be limited to the hours of 8:00 a.m. to 8:00 p.m. on weekdays, and 9:00 a.m. to 6:00 p.m. on weekends and holidays, with the exception of landscape maintenance activities for public schools, public and private golf courses, and public facilities, which are allowed to begin at 7:00 a.m. The use of motorized equipment for landscape maintenance activities during these hours is exempted from the limits of Section 10.48.040; provided, that reasonable efforts are made by the user to minimize the disturbances to nearby residents by, for example, installation of appropriate mufflers or noise baffles, running equipment only the minimal period necessary, and locating equipment so as to generate minimum noise levels on adjoining properties.

(Ord. 1921, (part), 2003; Ord. 1871, (part), 2001)

10.48.052 Outdoor Public Events.

A. Outdoor events open to the general public on nonresidential property, such as parades, rallies, fairs, concerts and special sales and promotional events, involving generation of noise levels higher than would normally occur, by use of the human voice, public address systems, musical instruments, electronic amplification systems, and similar soundproducing activities, are allowed upon obtaining an appropriate permit from the city, and subject to the following general limitations:

1. The event shall not produce noise levels above seventy dBA on any residential property for a period longer than three hours during daytime.

2. The event shall not produce noise levels above sixty dBA on any residential property during the period from eight p.m. to eleven p.m., and above fifty-five dBA for any other nighttime period.

3. Continuous or repeated peak noise levels above ninety-five dBA shall not be produced at any location where persons may be continuously exposed.

B. The conditions imposed upon the event or activity in the permit issued by the City, regarding maximum noise level, location of noise sources, or duration of activity, for example, may be more limiting than this section, to protect certain individuals, areas or nearby activities which would otherwise be disturbed, and these permit conditions, when in conflict with this section, are overriding.

(Ord. 1871, (part), 2001)

10.48.053 Grading, Construction and Demolition.

A. Grading, construction and demolition activities shall be allowed to exceed the noise limits of Section 10.48.040 during daytime hours; provided, that the equipment utilized has high-quality noise muffler and abatement devices installed and in good condition, and the activity meets one of the following two criteria:

1. No individual device produces a noise level more than eighty-seven dBA at a distance of twenty-five feet (7.5 meters); or

2. The noise level on any nearby property does not exceed eighty dBA.

B. Notwithstanding Section 10.48.053A, it is a violation of this chapter to engage in any grading, street construction, demolition or underground utility work within seven hundred fifty feet of a residential area on Saturdays, Sundays and holidays, and during the nighttime period, except as provided in Section 10.48.030.

C. Construction, other than street construction, is prohibited on holidays, except as provided in Sections 10.48.029 and 10.48.030.

D. Construction, other than street construction, is prohibited during nighttime periods unless it meets the nighttime standards of Section 10.48.040.

E. The use of helicopters as a part of a construction and/or demolition activity shall be restricted to between the hours of nine a.m. and six thirty p.m. Monday through Friday only, and prohibited on the weekends and holidays. The notice shall be given at least twenty-four hours in advance of said usage. In cases of emergency, the twenty-four hour period may be waived.

(Ord. 1871, (part), 2001)

10.48.054 Interior Noise in Multiple-Family Dwellings.

Noise produced in any multiple-family dwelling unit shall not produce a noise level exceeding 45 dBA five feet from any wall in any adjoining unit during the period between seven a.m. and ten p.m., or exceeding 40 dBA during hours from ten p.m. to seven a.m. the following day.

(Ord. 1871, (part), 2001)

10.48.055 Motor Vehicle Idling.

Motor vehicles, including automobiles, trucks, motorcycles, motor scooters and trailers or other equipment towed by a motor vehicle, shall not be allowed to remain in one location with the engine or auxiliary motors running for more than three minutes in any hour, in an area other than on a public right-of-way, unless:

A. The regular noise limits of Section 10.48.040 are met while the engine and/or auxiliary motors are running; or

B. The vehicle is in use for provision of police, fire, medical, or other emergency services.

(Ord. 1871, (part), 2001)

10.48.056 Noise from Registered Motor Vehicles.

A. It is a violation of this chapter to own or operate a motor vehicle, including automobiles, trucks, motorcycles and other similar devices of a type subject to registration, as defined in California Vehicle Code, which has a faulty, defective, deteriorated, modified, replaced, or no exhaust and/or muffler system, and which produces an excessive and disturbing noise level, as defined in California Vehicle Code Sections 27150 and 27151.

B. The Stationary Vehicle Test Procedure, as adopted by the California Highway Patrol, may be utilized as prima facie evidence of violation of this section.

(Ord. 1871, (part), 2001)

10.48.057 Noise from Off-Road Recreational Vehicles.

It is a violation of this chapter to own or operate:

A. Any off-road recreational vehicle, including all-terrain vehicles, dirt bikes, dune buggies and other similar devices, as defined in Division 16.5 of the California Vehicle Code, which has a faulty, defective, deteriorated, modified, replaced, or no exhaust and/or muffler system, and which produces an excessive and disturbing noise level, as specified in California Vehicle Code Section 38365;

B. Any off-road recreational vehicle producing a noise level:

1. Exceeding ninety-eight dBA within twenty inches of any component at an intermediate engine speed of two thousand to four thousand revolutions per minute in a stationary position; or

2. Exceeding eighty dBA under any condition of acceleration, speed, grade, and load at a distance of fifty feet. At greater or lesser measurement distances, the maximum noise level changes by four dB for each doubling or halving of distance. The sound level meter shall be set for FAST response for this measurement.

(Ord. 1871, (part), 2001)

10.48.060 Noise Disturbances.

No person shall unreasonably make, continue, or cause to be made or continued, any noise disturbance as defined in Section 10.48.010.

(Ord. 1871, (part), 2001)

10.48.061 Animals and Birds.

It is unlawful and a nuisance for any person to keep, maintain or permit upon any lot or parcel of land within the City under his control any animal, including any fowl, which by any sound or cry shall habitually disturb the peace and comfort of any person in the reasonable and comfortable enjoyment of life or property.

(Ord. 1871, (part), 2001)

10.48.062 Nighttime Deliveries and Pickups.

It is unlawful and a nuisance for any person to make or allow vehicular deliveries or pickups to or from commercial establishments (defined as any store, factory, manufacturing, or industrial plant used for the sale, manufacturing, fabrication, assembly or storage of goods, wares and merchandise) by the use of private roads, alleys or other ways located on either side or the back of any building housing the commercial establishment where such private road, alley or other way lies between the building and any adjacent parcel of land zoned for residential purposes, between the hours of eight p.m. and eight a.m. weekdays (Monday through Friday) and six p.m. and nine a.m. on weekends (Saturday and Sunday) and holidays except as may be permitted under Section 10.48.029.

(Ord. 1871, (part), 2001)

10.48.070 Violation–Penalty.

Any person who violates the provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished as provided in Chapter 1.12.

(Ord. 1886, (part), 2001; Ord. 1871, (part), 2001)

CONSTRUCTION NOISE MODELING

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                 Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/02/2019
Case Description:        COCU-15

                      **** Receptor #1 ****

                             Baselines (dBA)
Description   Land Use       Daytime    Evening    Night
-----------   --------       -------   -------     -----
Demolition    Residential       60.0      65.0     60.0

                         Equipment
                         ---------
                         Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax     Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Concrete Saw          No     20           89.6        90.0         0.0
Dozer              No     40           81.7        90.0         0.0
Tractor            No     40    84.0              90.0         0.0
Front End Loader       No     40           79.1        90.0         0.0
Backhoe             No     40           77.6        90.0         0.0

                         Results
                         -------
                                        Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                             ---------------------------------------------    ---------------------------------------------
                 Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
                 ----------------   --------------   -------------  -------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw          84.5    77.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer               76.6    72.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor             78.9    74.9       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        74.0    70.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              72.5    68.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total      84.5    80.9       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

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                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/02/2019
Case Description:       COCU-15

                     **** Receptor #1 ****

                           Baselines (dBA)
Description  Land Use       Daytime    Evening    Night
-----------  --------       -------    -------    -----
Site Prep    Residential      60.0       65.0     60.0

                        Equipment
                        ---------
                     Spec    Actual    Receptor   Estimated
          Impact  Usage    Lmax    Lmax      Distance   Shielding
Description   Device  (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------    ------  -----    -----   -----    --------    ---------
Grader          No     40     85.0              90.0         0.0
Dozer           No     40            81.7       90.0         0.0
Tractor         No     40     84.0              90.0         0.0

                        Results
                        -------
                                     Noise Limits (dBA)                   Noise Limit Exceedance (dBA)
                            ---------------------------------------------    --------------------------------------------
                Calculated (dBA)       Day          Evening          Night              Day           Evening          Night
                ----------------   --------------   -------------  -------------     -------------  -------------  -------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------   ------  ------  ------  ------  ------  ------
Grader                  79.9    75.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                   76.6    72.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 78.9    74.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total     79.9    79.5      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/07/2019
Case Description:       COCU-15

                        **** Receptor #1 ****

                              Baselines (dBA)
Description         Land Use       Daytime   Evening    Night
-----------         --------       -------   -------    -----
Utility Trenching    Residential       60.0       65.0     60.0

                           Equipment
                           ---------
                           Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)     (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Excavator            No     40            80.7        90.0         0.0
Excavator            No     40            80.7        90.0         0.0
Tractor            No     40     84.0              90.0         0.0
Drill Rig Truck       No     20            79.1        90.0         0.0

                           Results
                           -------
                                          Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                                ---------------------------------------------    ---------------------------------------------
                   Calculated (dBA)        Day          Evening        Night            Day          Evening         Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Excavator              75.6    71.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Excavator              75.6    71.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              78.9    74.9       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Drill Rig Truck          74.0    67.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      78.9    78.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/06/2019
Case Description:       COCU-15

                     **** Receptor #1 ****

                              Baselines (dBA)
Description    Land Use       Daytime   Evening    Night
-----------    --------       -------   -------    -----
Grading       Residential       60.0       65.0     60.0

                         Equipment
                         ---------
                     Spec    Actual    Receptor   Estimated
           Impact  Usage    Lmax    Lmax      Distance    Shielding
Description    Device  (%)     (dBA)   (dBA)     (feet)       (dBA)
-----------    ------  -----    -----   -----     --------    ---------
Grader          No     40     85.0               90.0         0.0
Dozer           No     40             81.7       90.0         0.0
Tractor         No     40     84.0               90.0         0.0

                         Results
                         -------
                                   Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                             ----------------------------------------    ----------------------------------------
                  Calculated (dBA)       Day          Evening        Night            Day          Evening         Night
                  ----------------  --------------  -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                79.9    75.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 76.6    72.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               78.9    74.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      79.9    79.5      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
               Roadway Construction Noise Model (RCNM),Version 1.1

Report date:        05/06/2019
Case Description:       COCU-15

                    **** Receptor #1 ****

                          Baselines (dBA)
Description            Land Use       Daytime    Evening    Night
-----------            --------       -------    -------    -----
Building Construction    Residential       60.0       65.0      60.0

                      Equipment
                      ---------
                     Spec    Actual    Receptor    Estimated
            Impact  Usage    Lmax    Lmax      Distance    Shielding
Description      Device   (%)      (dBA)   (dBA)      (feet)       (dBA)
-----------      ------  -----     -----   -----     --------     ---------
Crane              No      16            80.6        90.0         0.0
Man Lift             No     20            74.7        90.0         0.0
Generator            No     50            80.6        90.0         0.0
Tractor            No     40     84.0              90.0         0.0
Welder / Torch       No     40           74.0        90.0         0.0

                      Results
                      -------
                                   Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                         ---------------------------------------------    ---------------------------------------------
               Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
               ----------------   --------------   -------------  -------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                 75.4    67.5       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Man Lift                69.6    62.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Generator                75.5    72.5       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor               78.9    74.9       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch            68.9    64.9       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      78.9    77.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/02/2019
Case Description:      COCU-15

                     **** Receptor #1 ****

                          Baselines (dBA)
Description    Land Use       Daytime    Evening    Night
-----------    --------       -------    -------    -----
Paving       Residential       60.0       65.0     60.0

                        Equipment
                        ---------
                         Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description          Device  (%)      (dBA)   (dBA)      (feet)       (dBA)
-----------         ------  -----    -----   -----     --------    ---------
Drum Mixer             No     50          80.0        90.0         0.0
Paver                No     50          77.2        90.0         0.0
Pavement Scarafier       No     20          89.5        90.0         0.0
Roller               No     20          80.0        90.0         0.0
Tractor              No     40     84.0             90.0         0.0

                        Results
                        -------
                                     Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                          ---------------------------------------------    ---------------------------------------------
               Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
               ----------------   --------------   -------------  -------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq      Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Drum Mixer            74.9    71.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Paver              72.1    69.1      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       84.4    77.4      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller             74.9    67.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor             78.9    74.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total     84.4    80.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/02/2019
Case Description:       COCU-15

                     **** Receptor #1 ****

                          Baselines (dBA)
Description             Land Use       Daytime    Evening    Night
-----------            --------       -------    -------    -----
Architectural Coating    Residential       60.0       65.0     60.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----    -----     --------    ---------
Compressor (air)       No     40           77.7        90.0         0.0

                        Results
                        -------
                                    Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
               Calculated (dBA)        Day         Evening        Night            Day         Evening        Night
               ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq      Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         72.6    68.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      72.6    68.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          05/07/2019
Case Description:       COCU-15

                    **** Receptor #1 ****

                              Baselines (dBA)
Description        Land Use       Daytime    Evening    Night
-----------        --------       -------    -------    -----
Finish/Landscape    Residential       60.0       65.0     60.0

                          Equipment
                          ---------
                          Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device  (%)    (dBA)  (dBA)     (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Tractor              No     40     84.0               90.0         0.0
Front End Loader       No     40            79.1        90.0         0.0
Backhoe              No     40            77.6        90.0         0.0

                          Results
                          -------
                                        Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                              ------------------------------------------    ------------------------------------------
                  Calculated (dBA)        Day          Evening        Night            Day          Evening         Night
                  ----------------   --------------   -------------  -------------    -------------  -------------  -------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq    Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Tractor              78.9    74.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         74.0    70.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              72.5    68.5      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total      78.9    76.8      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

TRAFFIC NOISE INCREASE CALCULATIONS

Segment	Existing No Project	Existing Plus Project	Future No Project	Future + Project	Project Noise Increase	Cumulative Increase	Project Cumulative Contribution
Foothill Blvd, north of McClellan Rd PM	735	758	809	833	0.13	0.54	0.13
Foothill Blvd, south of McClellan Rd PM (btwn McClellan & St Andrews)	486	513	534	564	0.23	0.65	0.24
McClellan Rd, east of Foothill Blvd PM	366	375	402	412	0.11	0.51	0.11
Foothill Blvd, south of St. Andrews Ave. PM	445	447	490	493	0.02	0.44	0.03
St. Andrews Ave. , east of Foothill Blvd PM	41	41	46	46	0.00	0.50	0.00
					0.23	0.65	

APPENDIX D:
TRANSPORTATION DATA

TJKM VISION THAT MOVES YOUR COMMUNITY

TECHNICAL MEMORANDUM

Date: October 16, 2019

To: Dan Shaw

From: Chris D. Kinzel, P.E.
Vice President

Subject: ***10625 South Foothill Blvd. TIS Questions***

We understand the City of Cupertino has asked the following questions on this matter:

1. Vehicle miles traveled
2. Existing daily trips by land use
    a. Weekday
    b. Saturday
    c. Sunday
3. Project daily trips by land use
    a. Weekday
    b. Saturday
    c. Sunday

Vehicle Miles Traveled

In accordance with SB 743, daily VMT for projects in this area are presented based on the Metropolitan Transportation Commission (MTC) travel demand forecast model (https://github.com/BayAreaMetro/modeling-website/wiki/PlanBayArea). The Year 2020 Plan Bay Area model forecasted daily VMT of 27.92 miles per worker employed in this area while the San Francisco Bay Area average daily VMT is 21.8 miles per worker. For VMT per capita based on household location, the MTC model predicts a VMT of 19.55 miles per capita for households located in the project area in 2020. Using 19.55 miles per household, the residential VMT for the project is 18 homes x 19.55 = 352 VMT. Assuming two employees per thousand square feet, this 5,000 square foot project would have 10 employees. Using 27.92 miles per worker, the employee travel would generate 279 VMT. The total project VMT is estimated at 631.

Existing Daily Trips by Land use

For the purposes of developing a conservative traffic study, no trips from previous land uses were assumed; all trips were assumed to be new. However, using the previous land uses, which consisted of a 9,000 square foot multi-tenant retail building with a market and other tenants, a small residence, and a 1,500 square foot bike shop, the estimated daily trips are summarized in

Table 1. TJKM developed Saturday and Sunday trip factors using information contained in the ITE Trip Generation Manual, 9th Edition, the same reference as in the traffic study.

Project Daily Trips by Land Use

In this case, the proposed land uses were assumed – 13 residential condo townhomes, 5 apartments and 5,000 square feet of retail. Identical Saturday and Sunday factors were utilized.

Table 1 Daily Trip Generation by Land use

Land use	Weekday trip rate	Weekday trips	Saturday Factor	Saturday trips	Sunday Factor	Sunday Trips
Existing Conditions						
9 KSF retail	42.7	384	1.29	495	0.45	172
1 residence	5.81	6	1.04	6	0.91	5
1.5 KSF bike shop	42.7	64	1.29	82	0.45	28
Total Existing Trips	--	454	--	583	--	205
Proposed Project						
13 Condo/Townhomes	5.81	76	1.04	79	0.91	69
5 Apartments	6.65	33	1.04	34	0.91	30
5 KSF retail	42.7	214	1.29	276	0.45	96
Total Project Trips	--	322	--	389	--	195

Again, to be conservative, the traffic study TJKM did not apply credits for trips from previous land uses. It can be seen that the previous land uses may have generated more trips than the new project will generate. However, no records are available to verify this information.

Please contact me if there are any questions on this matter.

Traffic Impact Study Report

10625 South Foothill Boulevard, Cupertino, CA

City of Cupertino, California

November 3, 2017
Updated July 12, 2019

TJKM

Table of Contents

Tables

Figures

Appendices

EXECUTIVE SUMMARY

This report summarizes the results of the Traffic Impact Analysis (TIA) conducted for the proposed mixed-use development located at 10625 South Foothill Boulevard on the southwest corner of the South Foothill Boulevard/McClellan Road intersection in the City of Cupertino. The purpose of this report is to investigate traffic impacts to the surrounding transportation system. To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the proposed project, the study intersections were evaluated in accordance with the standards set forth by the level of service (LOS) policies of the Santa Clara County Valley Transportation Authority (VTA) Congestion Management Program (CMP) and the City of Cupertino. The project site and vicinity are shown in **Figure 1**.

The development proposes to demolish existing residential and commercial land uses and construct 13 townhouse style residential units, five residential apartments, 5,000 square feet for commercial use, with surface and underground parking. The proposed access to the site is via two existing driveways: one entrance driveway at the South Foothill Boulevard/McClellan Road intersection and another exit driveway at the Stevens Canyon Road/St. Andrews Avenue intersection.

The existing site consists of commercial land uses including bike shop, U-Haul Neighborhood dealer, Stevens Creek Market, coffee shop, beauty salon, restaurant and coin-operated laundry facility. The proposed project will demolish these existing land uses and construct 13 townhouse style residential units,five residential apartments and 5,000 square feet for commercial purpose on approximately 1.5 acres zoned P(CG) Mixed Use Planned Development/Commercial General. The site also contains surface parking spaces, in addition to garages and landscaping.

The report also includes evaluations and recommendations concerning project site access and on-site circulation for vehicles, bicycles, and pedestrians, evaluation of on-site vehicle parking supply, passenger and commercial loading spaces and garbage/trash facilities.To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the proposed project, two study intersections were evaluated during the weekday a.m. peak hour and p.m. peak hour under four study scenarios. The study intersections were evaluated under *No Project* and *Plus Project* scenarios for Existing, and Cumulative Conditions. For the purposes of this analysis, potential traffic operational effects from the proposed project are identified based on established traffic operational thresholds for the VTA CMP and the City of Cupertino.

Project Trip Generation

The proposed residential development project is expected to generate a net of 322 daily trips in which 14 trips are generated during the a.m. peak hour and 29 trips are generated during the p.m. peak hour. The proposed trip generation does not includes discounts for existing site use.

Existing Conditions

Under this scenario, all the intersections operate within applicable standards of City of Cupertino during the a.m. and p.m. peak hours.

Existing plus Project Conditions

Under this scenario, all the intersections operate at acceptable standards for both a.m. and p.m. peak hours.

Based on the City of Cupertino impact criteria the project is expected to have a **less-than-significant** impact at the two study intersections.

Cumulative Conditions

Under this scenario, all the intersections operate within applicable standards of the City of Cupertino (LOS D) and the VTA's CMP (LOS E) during the a.m. and p.m. peak hours.

Cumulative plus Project Conditions

Under this scenario, all the intersections operate at acceptable standards for both a.m. and p.m. peak hours.

Based on the City of Cupertino impact criteria the project is expected to have a **less-than-significant** impact at the two study intersections.

Queuing and Driveway Analysis

The proposed project *does not create a significant impact* on the expected left-turn or right-turn queues at the study intersections. The project driveways are expected to operate at an acceptable LOS and the 95th percentile queueing at the outbound approach of project driveway is expected to be minimal.

Pedestrian, Bicycle and Transit Impacts

The proposed project does not conflict with existing and planned pedestrian or bicycle facilities. There is no transit service near the project vicinity. Therefore, the impact to pedestrian, bicycle facilities and transit facilities is ***less-than-significant***.

On-Site Circulation

TJKM examined the project site plan in order to evaluate the adequacy of on-site vehicle circulation including service trucks and emergency vehicles. The proposed project's access will be via two existing driveways: one driveway at McClellan Road and one at St Andrews Avenue. Based on the evaluation, the proposed on-site vehicle circulation is adequate and should not result in any traffic operations issues that would produce significant impacts on City streets.

Parking

Based on the project site plan dated May 23, 2017 (**Figure 2**) and preliminary underground parking plans, there would be 36 underground spaces, seven surface spaces, and two car garages for each of the 13 townhomes, for a total supply of 69 spaces. Based on the City of Cupertino's parking requirements, 2.8 parking spaces (two car carage/one open) are required per small lot single-family unit. Multi-family residential requires two (one covered/one open) per unit. General retail under 25,000 square feet (sq.ft.) requires one space per 1,250 sq.ft. The base parking supply required would thus be 50 spaces. The proposed parking supply of 69 spaces. Based on the proposed parking spaces to be provided on site, no parking impacts are projected on City streets.

Recommendation

TJKM recommends the installation of Stop control at the project exit driveway with appropriate pavement delineation and signing.

INTRODUCTION

This report summarizes the results of the TIA for the proposed residential development located at 10625 South Foothill Boulevard on the southwest corner of the South Foothill Boulevard/McClellan Road intersection in the City of Cupertino. The proposed development will demolish the existing residential and commercial land uses and construct 13 townhouse style residential units, five residential apartments, and 5,000 square feet for commercial use, with underground parking. Proposed access to the site will be via two existing driveways: one entrance driveway at the South Foothill Boulevard/McClellan Road intersection and the other exit driveway at the Stevens Canyon Road/St. Andrews Avenue intersection.

The existing site consists of commercial land uses including a bike shop, U-Haul Neighborhood dealer, Stevens Creek Market, coffee shop, beauty salon, restaurant, and a coin-operated laundry facility. The proposed project will be developed on approximately 1.5 acres zoned P(CG) Mixed Use Planned Development/Commercial General.

This chapter discusses the TIA purpose, project study area, analysis scenarios and methods, and criteria used to identify significant impacts.

STUDY INTERSECTIONS AND SCENARIOS

TJKM evaluated traffic conditions at two study intersections during the a.m. and p.m. peak hours for a typical weekday. The peak periods observed were between 7:00-9:00 a.m. and 4:00-6:00 p.m.. The study intersections and associated traffic controls are as follows:

1. South Foothill Boulevard/McClellan Road (Two – Way Stop)
2. Stevens Canyon Road/St. Andrews Avenue (Two – Way Stop)

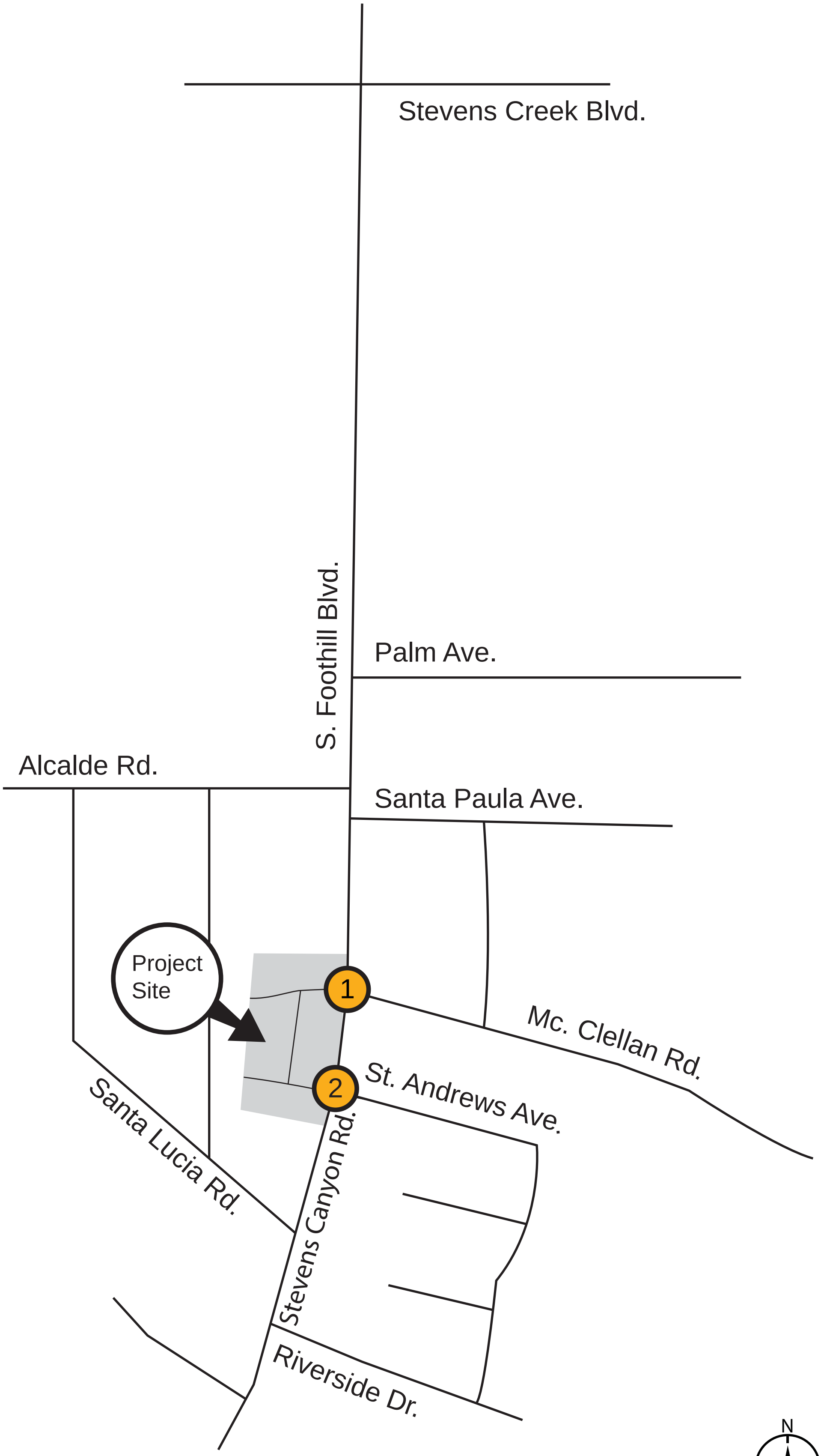
Both the intersections are considered as four legged Two-Way Stop sign controlled intersections considering the existing driveways as the fourth leg operating under stop control.

Figure 1 illustrates the study intersections and the vicinity map of the proposed project. **Figure 2** shows the proposed project site plan.

This study addresses the following four traffic scenarios:

- **Existing Conditions** – This scenario evaluates the study intersection based on existing traffic volumes, lane geometry and traffic controls.
- **Existing plus Project Conditions** – This scenario is identical to Existing Conditions, but with the addition of traffic from the proposed project.
- **Cumulative Conditions** – This scenario is similar to the Existing Conditions but with the projected growth rate of 1 percent per year for 10 years (Year 2025), which was applied to Existing Conditions traffic volumes.
- **Cumulative plus Project Conditions** – This scenario is identical to Cumulative Conditions, but with the addition of traffic from the proposed project.

Vicinity Map



LEGEND

(X) Study Intersection

TJKM

148-015

Figure 1

Project Site Plan

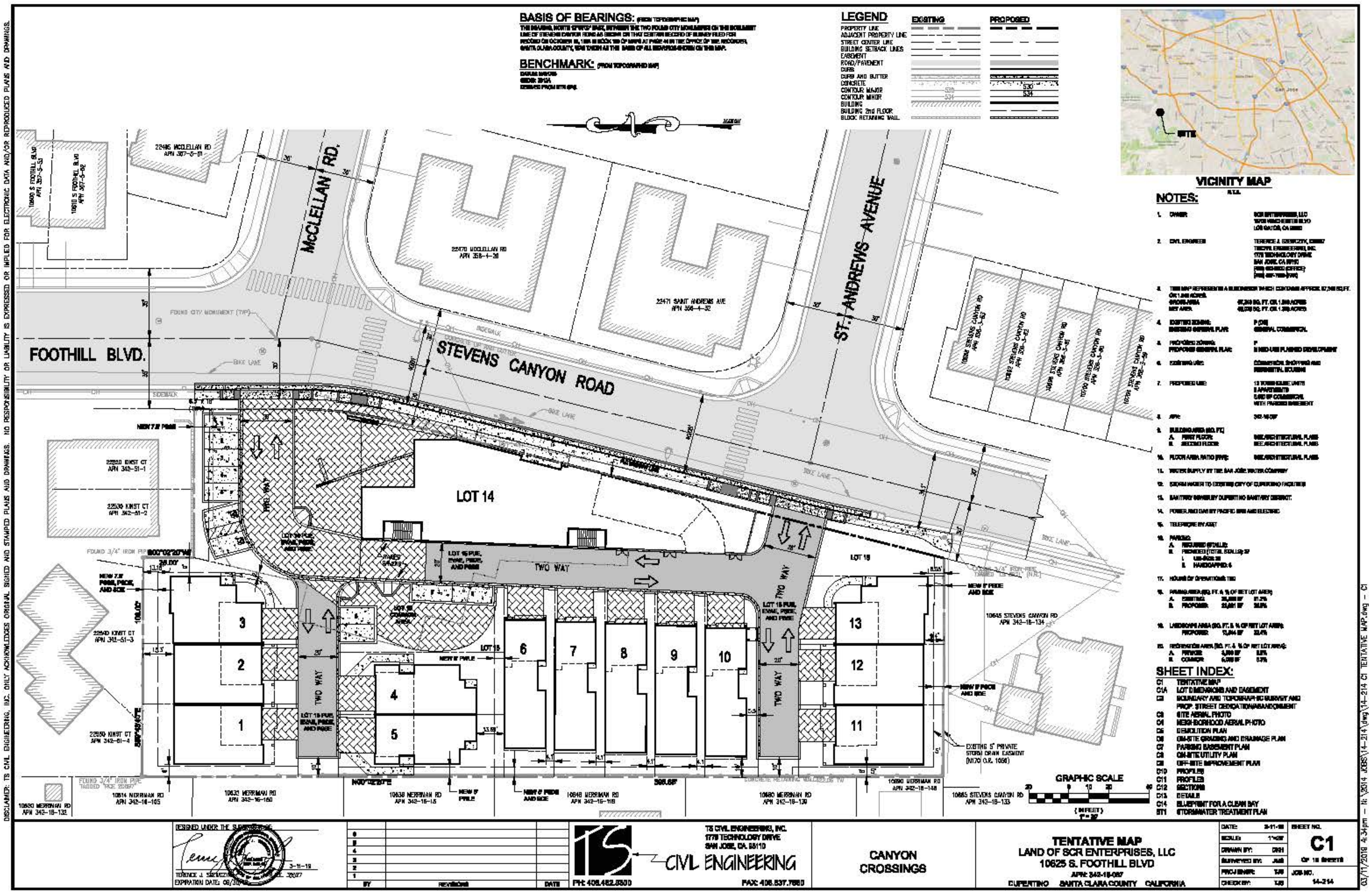


Figure 2

STUDY METHODOLOGY

LEVEL OF SERVICE ANALYSIS METHODOLOGY

Level of Service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow) and F the worst (severely congested flow with high delays). Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets.

Signalized Intersections

The study intersections under traffic signal control were analyzed using the 2000 Highway Capacity Manual (HCM) Operations Methodology for signalized intersections described in Chapter 16 (HCM 2000). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. The LOS methodology is approved by VTA, and adopted by the City of Cupertino. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections was calculated using TRAFFIX 8.0 analysis software and was correlated to a LOS designation as shown in **Appendix A**. The LOS methodology is described for signalized intersections in detail in **Appendix A**.

Unsignalized Intersections

The study intersections under stop control (unsignalized) were analyzed using the 2000 HCM Operations Methodology for signalized intersections described in Chapter 17 (HCM 2000). LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At the side street, controlled intersections or two-way stop sign intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The weighted average delay for the entire intersections is presented for all-way stop controlled intersections. The average control delay for unsignalized intersections was calculated using TRAFFIX 8.0 analysis software and was correlated to a LOS designation as shown in **Appendix A**. The LOS methodology is described for unsignalized intersections in detail in **Appendix A**.

SIGNIFICANT IMPACT CRITERIA/LEVEL OF SERVICE STANDARDS

Using the City of Cupertino's level of service impact criteria, the project's potential transportation impacts were evaluated by comparing the Existing Conditions' and Cumulative Conditions' "No Project" scenarios to their respective "plus Project" scenarios.

Signalized Intersections

The LOS standard for City of Cupertino intersections is generally LOS D; except for a few specific intersections that have a LOS E+ (60 seconds) threshold.

According to City of Cupertino's standards, a project-generated increase in traffic is considered to have a significant impact if it meets either of the following criteria:

- Intersection operations to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F);
- Exacerbation of unacceptable operations by increasing the average critical delay by more than four seconds and increasing the critical volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS E or F; or
- The V/C ratio to increase by 0.01 or more at an intersection with unacceptable operations (LOS E or F) when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

There are no signalized intersections to be evaluated for this TIA.

Unsignalized Intersections

Level of service analyses at unsignalized intersections are generally used to determine the need for modification in type of intersection control (i.e., all-way stop or signalization). As part of this evaluation, traffic volumes, delays, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

The City of Cupertino does not have officially adopted significance criteria for unsignalized intersections. Based on previous studies, significant impacts are defined to occur when the addition of project traffic causes the average intersection delay for all-way stop-controlled intersection or the worst movement/approach for side-street stop-controlled intersections to degrade to LOS F and the intersection satisfies any traffic signal warrant from the MUTCD.

There are two unsignalized intersections to be evaluated for this TIA.

Pedestrian and Bicycle Impact Criteria

Pedestrian and bicycle impacts are considered significant if the Project would potentially disrupt existing pedestrian and bicycle facilities, interfere with planned pedestrian and bicycle facilities, or would conflict or create inconsistencies with adopted pedestrian and bicycle system plans, guidelines, policies, or standards.

Transit Impact Criteria

Transit impacts are considered significant if the proposed project conflicts with existing or planned transit facilities, generates potential transit trips in excess of available capacity, or does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops.

There are no existing transit facilities in the vicinity of the proposed project.

EXISTING CONDITIONS

This section describes existing conditions in the immediate project site vicinity, including roadway facilities, bicycle and pedestrian facilities, and available transit service. In addition, existing traffic volumes and operations are presented for the study intersection, including the results of LOS calculations.

EXISTING SETTING AND ROADWAY SYSTEM

Important roadways adjacent to the project site are discussed below:

South Foothill Boulevard within the project vicinity is a two-lane, north-south roadway. Foothill Boulevard extends between McClellan Road and Interstate 280 (I-280) and is dividend in two segments; one is North Foothill Boulevard between Stevens Creek Boulevard and I-280 and the other is South Foothill Boulevard between Stevens Creek Boulevard and McClellan Road. South Foothill Boulevard provides access to local residential and regional commercial areas and provides direct access to the project site via an existing driveway at McClellan Road. The posted speed limit along South Foothill Boulevard is 30 mph within the project vicinity.

Stevens Canyon Road within the project vicinity is a two-lane, north-south roadway. Stevens Canyon Road extends from McClellan Road to the Stevens Creek reservoir. Stevens Canyon Road provides access to local residential areas and provides direct egress from the project site an via existing driveway at St. Andrews Road. The posted speed limit along Steven Canyon Road is 30 mph within the project vicinity.

McClellan Road within the project vicinity is a two-lane, east-west roadway. McClellan Road extends between South Foothill Boulevard and De Anza Boulevard. The posted speed limit along McClellan Road is 25 mph within the project vicinity.

St. Andrews Road within the project vicinity is a two-lane, east-west residential street. St. Andrews Road extends between Stevens Canyon Road and Deep Cliff Drive. It provides access to the residential areas. The speed limit along St. Andrews Road is 25 mph.

EXISTING PEDESTRIAN FACILITIES

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes wide sidewalks, a mix of land uses such as residential, employment, and shopping opportunities, a limited number of conflict points with vehicle traffic, and easy access to transit facilities, and services.

Pedestrian facilities comprise of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities.

The project site does not have adequate pedestrian access, as sidewalks are present only on the one side of Stevens Canyon Road within the project vicinity. The existing pedestrian facilities in the study area are shown in **Figure 3.**

The South Foothill Boulevard/McClellan Road intersection has crosswalks marked with ladder stripping across only two legs (south leg and east leg) of the two-way stop-controlled intersection. The Stevens Canyon Road/St. Andrews Avenue intersection has a crosswalk marked with ladder stripping at the north leg of the two-way stop-controlled intersection.

Within the project vicinity South Foothill Boulevard, McClellan Road and St. Andrews Avenue have sidewalks on both sides of roadway. Stevens Canyon Road has sidewalks only on eastside of the roadway. There are no sidewalks on the project side of Stevens Canyon Road.

EXISTING BICYCLE FACILITIES

Bicycle facilities include the following:

- Bike Paths (Class I) – Paved trails that are separated from roadways
- Bike Lanes (Class II) – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs
- Bike Routes (Class III) – Designated roadways for bicycle use by signs or other markings may or may not include additional pavement width for cyclists

Class II Bike lanes are provided along both sides of the roadway at South Foothill Boulevard and Stevens Canyon Road near the proposed project. There is adequate signage for the bicyclists to maneuver without confusion. Class III Bikeway (Bike Route) designated signs and pavement markings for shared use bikes signs are provided along McClellan Road on both sides of the roadway. Overall, existing bicycle facilities provide adequate connectivity between the proposed project site and the adjacent residential neighborhoods. The existing bicycle facilities in the study area are shown in **Figure 3.**

EXISTING TRANSIT FACILITIES

VTA operates bus service services in the City of Cupertino. There is no transit route within the project site.

EXISTING PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS

The existing operations of the study intersections were evaluated for the highest one-hour volumes during weekday morning and evening peak periods. Turning movement counts for vehicles, bicycles, and pedestrians were conducted during typical weekday day a.m. and p.m. peak periods (7:00-9:00 a.m. and 4:00- 6:00 p.m., respectively) at the study intersections in January 2016. Field verification of existing intersection lane configurations and traffic controls was also conducted and provided basis for the LOS analysis for Existing conditions. **Appendix B** includes all the data sheets for the collected vehicle, bicycle, and pedestrian counts.

Existing Pedestrian & Bicycle Facilities

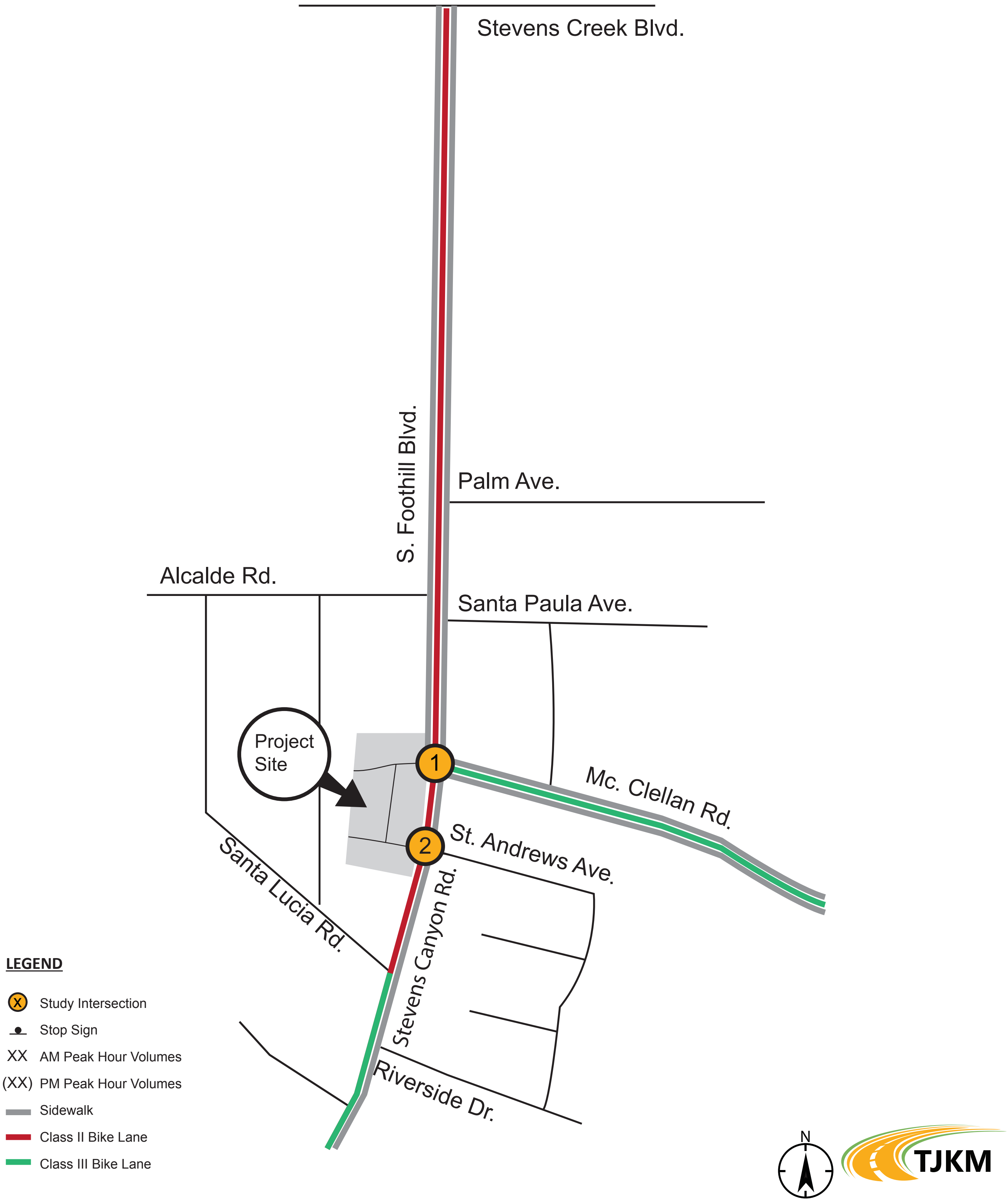


Figure 3

INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING CONDITIONS

The existing operations of the study intersections were evaluated for the highest one-hour volume during the weekday morning and evening peak periods. The a.m. and p.m. peak-hour intersection turning movement counts were conducted by TJKM in January 2016. The results of the LOS analysis using the TRAFFIX software program for Existing Conditions are summarized in **Table 1**. Field verification of existing intersection lane configurations and traffic controls were also conducted and provided the basis for the LOS analysis for Existing Conditions. **Figure 4** illustrates the existing vehicle turning movement volumes, lane geometry, and traffic controls at the study intersections.

The Existing Conditions LOS analysis for the purpose of this TIA is based on an isolated intersection analysis of traffic volumes, rather than analysis of the corridor as a whole. The standalone LOS results sometimes can be misleading if a corridor operates under forced flow, or congested, traffic conditions. Forced flow traffic operations can reduce overall vehicle throughput per hour at intersections, leading to LOS analysis results that suggest there is less corridor congestion than is actually occurring under existing field conditions. Where there is known congestion, additional analysis of field conditions becomes necessary in order to review and evaluate the extent of forced flow operations. TJKM conducted a field review of existing traffic conditions at the study intersections during the prevailing a.m. and p.m. peak periods based on collected traffic counts (7:00-9:00 a.m. and 4:00-6:00 p.m.) in January 2016. The purpose was to identify existing operational conditions at the study intersection that might not be reflected in the preceding existing conditions intersection LOS results. The existing operational conditions at the study intersections reflect the preceding existing conditions intersection LOS results.

Table 1 below summarizes peak hour levels of service at the study intersections under Existing Conditions. Under this scenario, all the intersection operate within applicable standards of the City of Cupertino during the a.m. and p.m. peak hours. LOS worksheets are provided in **Appendix C**.

Table 1: Intersection Level of Service Analysis – Existing Conditions

#	*Study Intersections*	*Control*	*Peak Hour*[1]	*Existing Conditions*	
				Delay[2]	*LOS*[3]
1	South Foothill Boulevard/McClellan Road	Two – Way Stop	AM	24.3	C
			PM	22.7	C
2	Stevens Canyon Road/St. Andrews Avenue	Two – Way Stop	AM	10.9	B
			PM	11.0	B

Notes:

[1] AM – morning peak hour, PM – evening peak hour

[2] Delay – Total control delay for the worst movement is presented for side-street stop-controlled intersections.

[3] LOS – Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the 2000 HCM.

Existing Conditions, Lane Geometry, Traffic Controls & Turning Movement Volumes

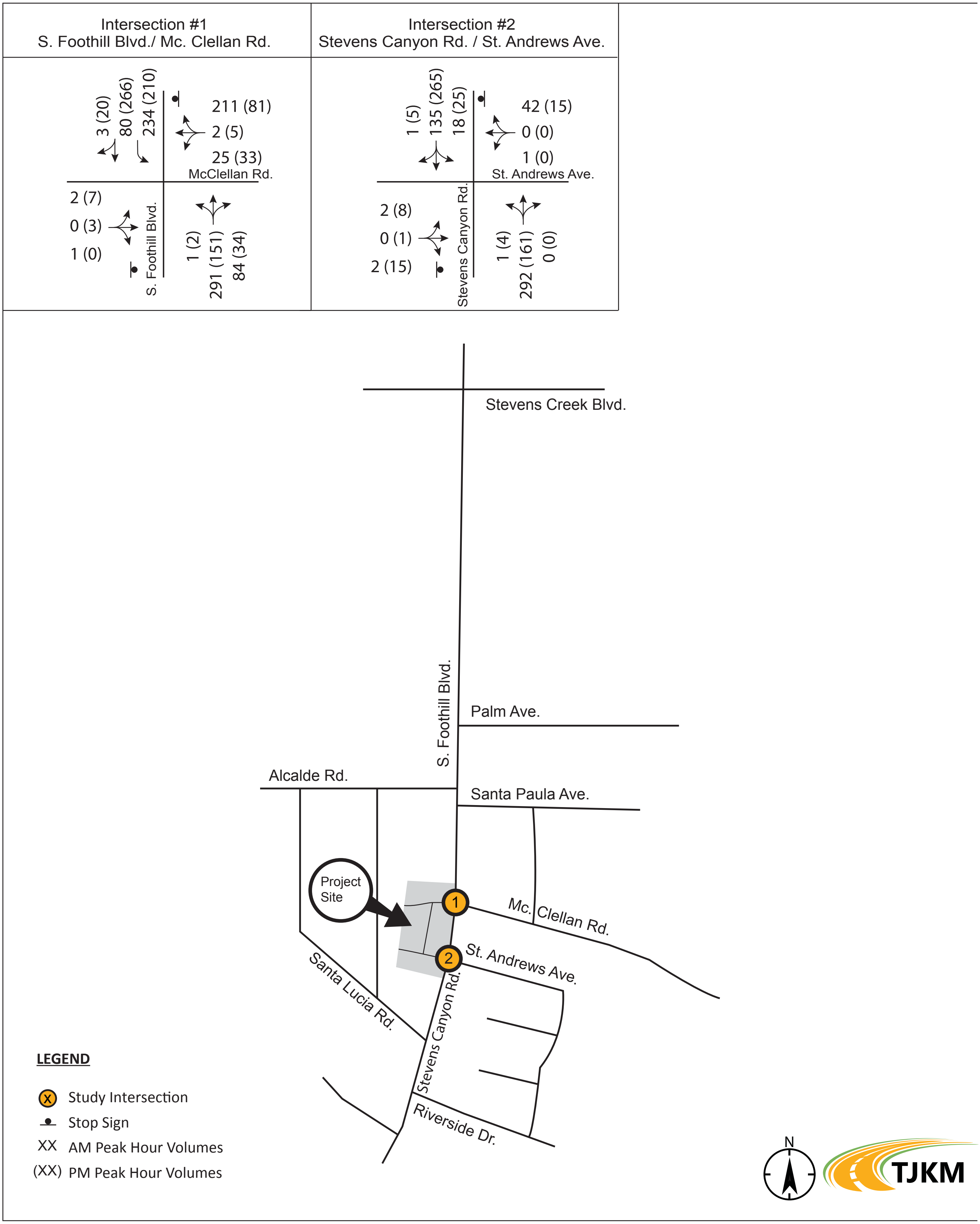


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Figure 4

EXISTING PLUS PROJECT CONDITIONS

This analysis scenario presents the impacts of the proposed residential development at the study intersections and surrounding roadway system. This scenario is similar to Existing Conditions, but with the addition of traffic from the proposed project.

PROPOSED PROJECT LOCATION AND DESCRIPTION

The proposed residential development located at 10625 South Foothill Boulevard on the southwest corner of the South Foothill Boulevard/McClellan Road intersection in the City of Cupertino. The proposed development will demolish the existing residential and commercial land uses and construct 13 townhouse style residential units, five residential apartments, and 5,000 square feet for commercial use, with surface and underground parking. Proposed access to the site will be via two existing driveways: one entrance driveway at the South Foothill Boulevard/McClellan Road intersection and the other exit driveway at the Stevens Canyon Road/St. Andrews Avenue intersection.

The existing site consists of commercial land uses such as a bike shop, U-Haul Neighborhood dealer, Stevens Creek Market, coffee shop, beauty salon, restaurant, coin-operated laundry facility. The proposed project will be developed on approximately 1.5 acres zoned P(CG) Mixed Use Planned Development/Commercial General.

PROJECT TRIP GENERATION

TJKM developed estimated project trip generation for the proposed project based on published trip generation rates from the ITE publication Trip Generation Manual (9th *Edition).* TJKM used published trip rates for the ITE Land Use Residential Condominium Townhouse (ITE Code 230), Apartments (ITE Code 220) and Retail (ITE Code 820). **Table 2** shows the tripsexpected to be generated by the proposed project. The proposed project is expected to generate approximately 322 daily trips, 14 weekday a.m. peak hour trips (five inbound trips, nine outbound trips) and 29 weekday p.m. peak hour trips (16 inbound trips, 13 outbound trips).

For a more conservative approach, TJKM did not apply trip credits from the existing land uses (commercial and restaurant) as it would show a negative trip generation. The trips generated were considered as if the land were a vacant or an undeveloped parcel.

Table 2: Project Trip Generation

#	Land Use (ITE code)	Size		Daily		AM Peak					PM Peak				
				Rate	Trips	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
1	Residential Condominium Townhouse[1](230)	13	DU	5.81	76	0.44	17:83	1	5	6	0.52	67:33	5	2	7
2	Apartments[2] (220)	5	No	6.65	33	0.51	20:80	1	2	3	0.62	65:35	2	1	3
3	Retail[3](820)	5.00	ksfgla	42.70	214	0.96	62:38	3	2	5	3.71	48:52	9	10	19
	Total Trips				***322***			***5***	***9***	***14***			***16***	***13***	***29***

Source: ITE Trip Generation Manual,9th Edition,2012
DU-Dwelling Units
ksfgla - 1,000 Square feet Gross Leasable Area
[1] ITE Trip rates per unit for residential condominium houses
[2] ITE Trip rates per unit for residential apartments
[3] ITE Trip rates per 1,000 square feet for retail use

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution is a process that determines in what proportion vehicles would be expected to travel between the project site and various destinations outside the project study area and also determines the various routes that vehicles would take from the project site to each destination using the calculated trip distribution.

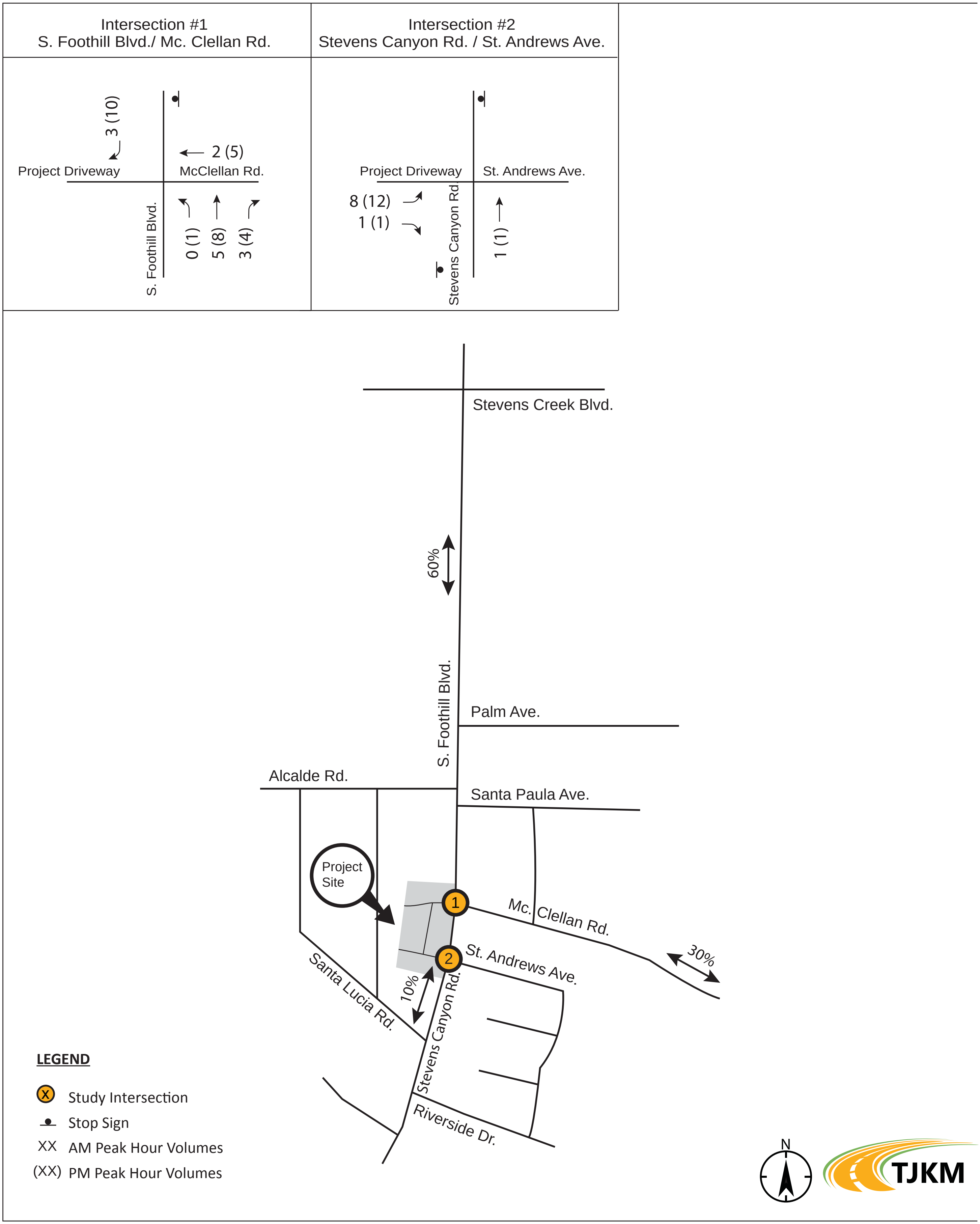
Trip distribution assumptions for the proposed mixed-use development project were developed based on the existing travel patterns and TJKM's knowledge of the study area.

The distribution assumptions are as follows**:**

- 60 percent to/from South Foothill Boulevard north of McClellan Road
- 30 percent to/from McClellan Road east of South Foothill Boulevard
- 10 percent to/from Stevens Canyon Road south of St. Andrews Avenue

Figure 5 illustrates the trip distribution percentages and trip assignment project volumes developed for the proposed project. The assigned project trips were then added to traffic volumes under Existing Conditions to generate Existing plus Project Conditions traffic volumes.

Project Trip Distribution & Assignment



148-015

Figure 5

INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING PLUS PROJECT CONDITIONS

The intersection LOS analysis results for Existing plus Project Conditions are summarized in **Table 3**. Detailed calculation sheets for Existing plus Project Conditions are contained in **Appendix D**. Under this scenario, all the intersections operate within applicable standards of the City of Cupertino during the a.m. and p.m. peak hours. There is an increase in delay on South Foothill Boulevard/McClellan Road, however still within acceptable LOS standards.

Based on the City of Cupertino's impact criteria the project is expected to have a **less-than-significant** impact at the study intersections. It shouled be noted that the delay experienced at the study intersection #1 under existing plus project conditions is less than the existing conditions delay, since the project driveway is one-way, and all the vehicles need to enter at the study intersection of South Foothill Boulevard/McClellan Road and exit through the intersection of Stevens Canyon Road/St.Andrews Avenue.

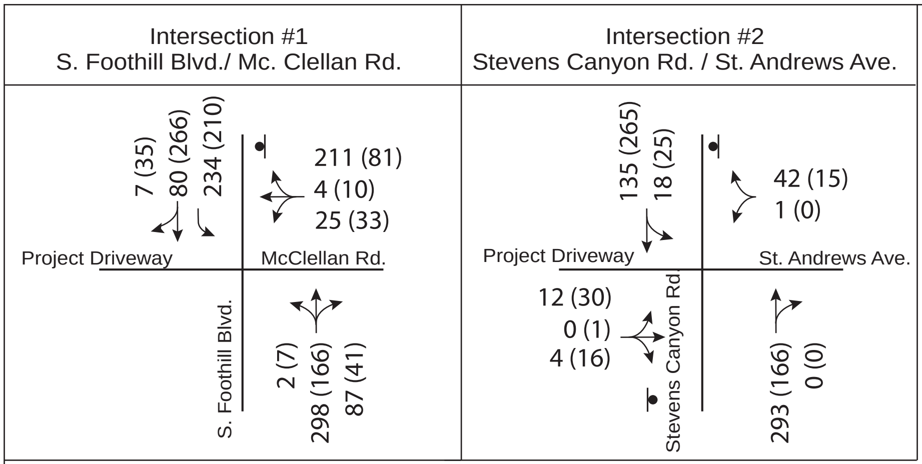
Figure 6 shows projected turning movement volumes at all of the study intersections for Existing plus Project Conditions.

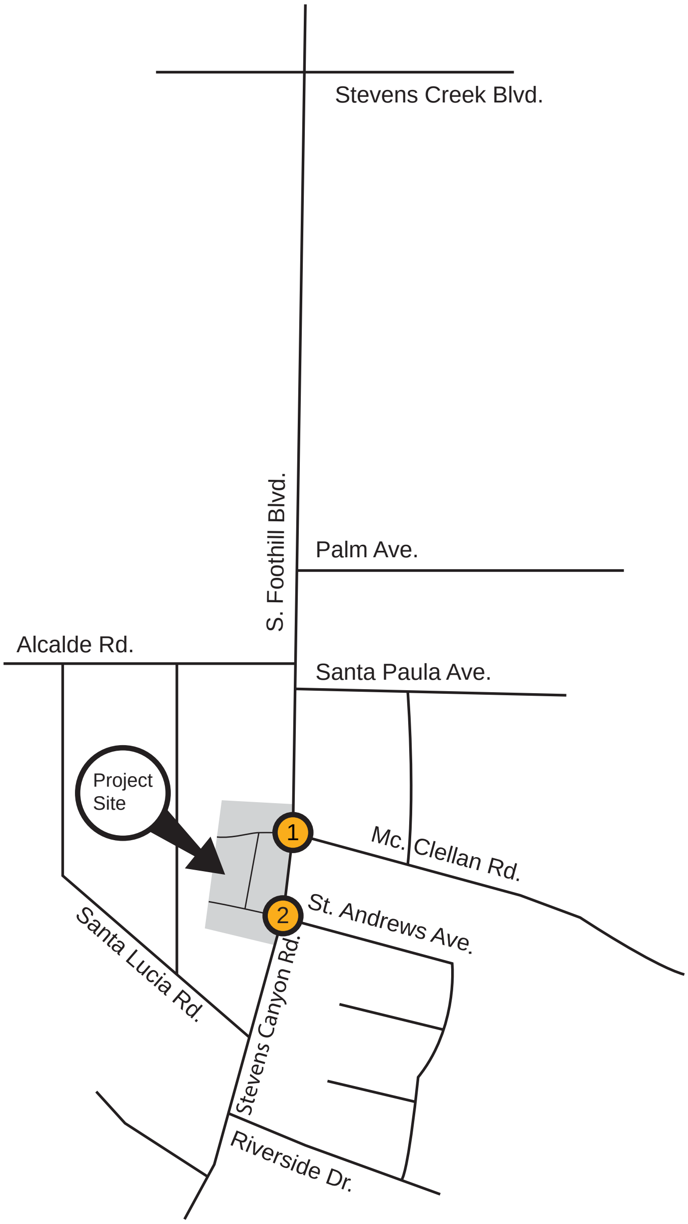
Table 3: Intersection Level of Service Analysis – Existing plus Project Conditions

#	Study Intersections	Control	Peak Hour[1]	Existing Conditions		Existing plus Project Conditions	
				Delay[2]	LOS[3]	Delay[2]	LOS[3]
1	South Foothill Boulevard/ McClellan Road	Two – Way Stop	AM	24.3	C	15.4	C
			PM	22.7	C	15.1	C
2	Stevens Canyon Road/St. Andrews Avenue	Two – Way Stop	AM	10.9	B	12.0	B
			PM	11.0	B	12.2	B

Notes:
[1] AM – morning peak hour, PM – evening peak hour
[2] Delay – Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[3] LOS – Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the 2000 HCM.

Existing Plus Project Conditions, Lane Geometry, Traffic Controls & Turning Movement Volumes





LEGEND

- Ⓧ Study Intersection
- ● Stop Sign
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes

Figure 6

CUMULATIVE CONDITIONS

This section details expected traffic conditions at the study intersections under Cumulative (No Project) Conditions. This analysis scenario is defined as baseline conditions without the proposed project in year 2025. This scenario is similar to the Existing Conditions, but with a projected growth rate of one percent per year over ten years applied to Existing traffic conditions to project traffic demands for the Horizon Year 2025.

INTERSECTION LEVEL OF SERVICE ANALYSIS - CUMULATIVE CONDITIONS

The intersection LOS analysis results for Cumulative Conditions are summarized in **Table 4**. Detailed calculation sheets for Cumulative Conditions are contained in **Appendix D**. Under this scenario, all the intersections operate within applicable standards of the City of Cupertino during the a.m. and p.m. peak hours.

Figure 7 shows projected turning movement volumes at both of the study intersections for Cumulative Conditions.

Table 4: Intersection Level of Service Analysis – Cumulative Conditions

#	Study Intersections	Control	Peak Hour[1]	Cumulative Conditions	
				Delay[2]	LOS[3]
1	South Foothill Boulevard/ McClellan Road	Two – Way Stop	AM PM	29.5 26.2	D D
2	Stevens Canyon Road/St. Andrews Avenue	Two – Way Stop	AM PM	11.3 11.4	B B

Notes:
[1] AM – morning peak hour, PM – evening peak hour
[2] Delay – Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[3] LOS – Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the 2000 HCM.

Cumulative Conditions, Lane Geometry, Traffic Controls & Turning Movement Volumes

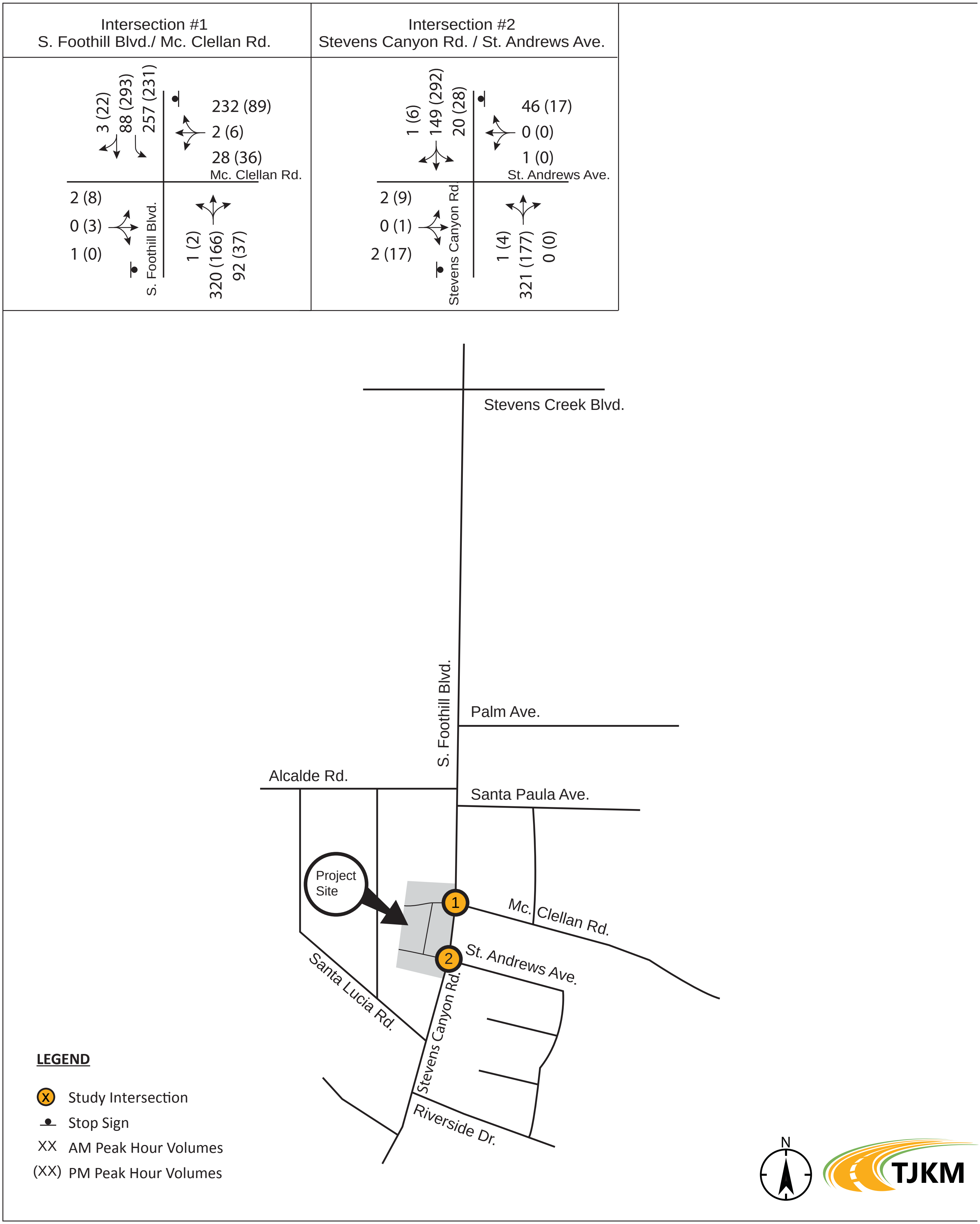


Figure 7

CUMULATIVE PLUS PROJECT CONDITIONS

This scenario is similar to the Cumulative Conditions, with the addition of projected traffic from the proposed mixed-use development project. Trip generation, distribution, and assignment for the proposed project are identical to that assumed under Existing plus Project Conditions. **Figure 8** shows projected turning movement volumes at both the study intersections for Cumulative plus Project Conditions.

INTERSECTION LEVEL OF SERVICE ANALYSIS - CUMULATIVE PLUS PROJECT CONDITIONS

The intersection LOS analysis results for Cumulative plus Project Conditions are summarized in **Table 5**. Detailed calculation sheets for Cumulative plus Project Conditions are contained in **Appendix E**. Under this scenario, all the intersections operate within applicable standards of City of Cupertino during the a.m. and p.m. peak hours.

Based on the City of Cupertino impact criteria, the project is expected to have a **less-than-significant** impact at the two study intersections.

Table 5: Intersection Level of Service Analysis – Cumulative plus Project Conditions

#	*Study Intersections*	*Control*	*Peak Hour*[1]	*Cumulative Conditions*		*Cumulative plus Project Conditions*	
				Delay[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]
1	South Foothill Boulevard/McClellan Road	Two – Way Stop	AM	29.5	D	17.7	C
			PM	26.2	D	16.9	C
2	Stevens Canyon Road/St. Andrews Avenue	Two – Way Stop	AM	11.3	B	12.6	B
			PM	11.4	B	12.7	B

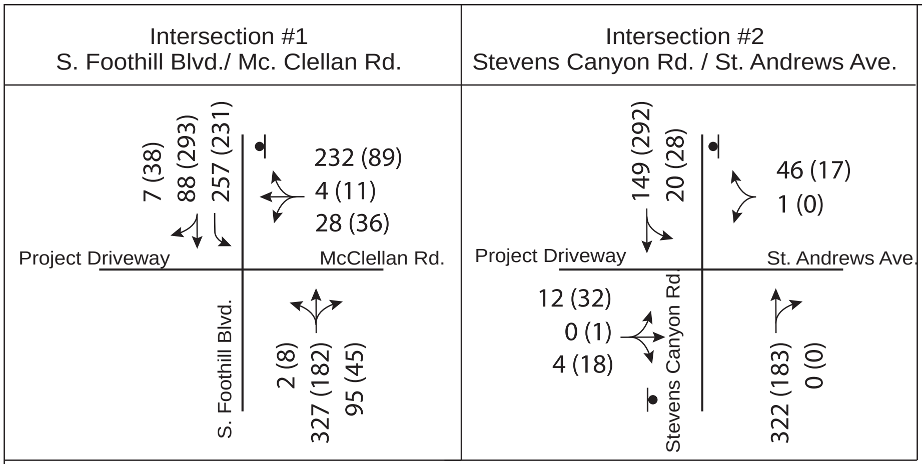
Notes:

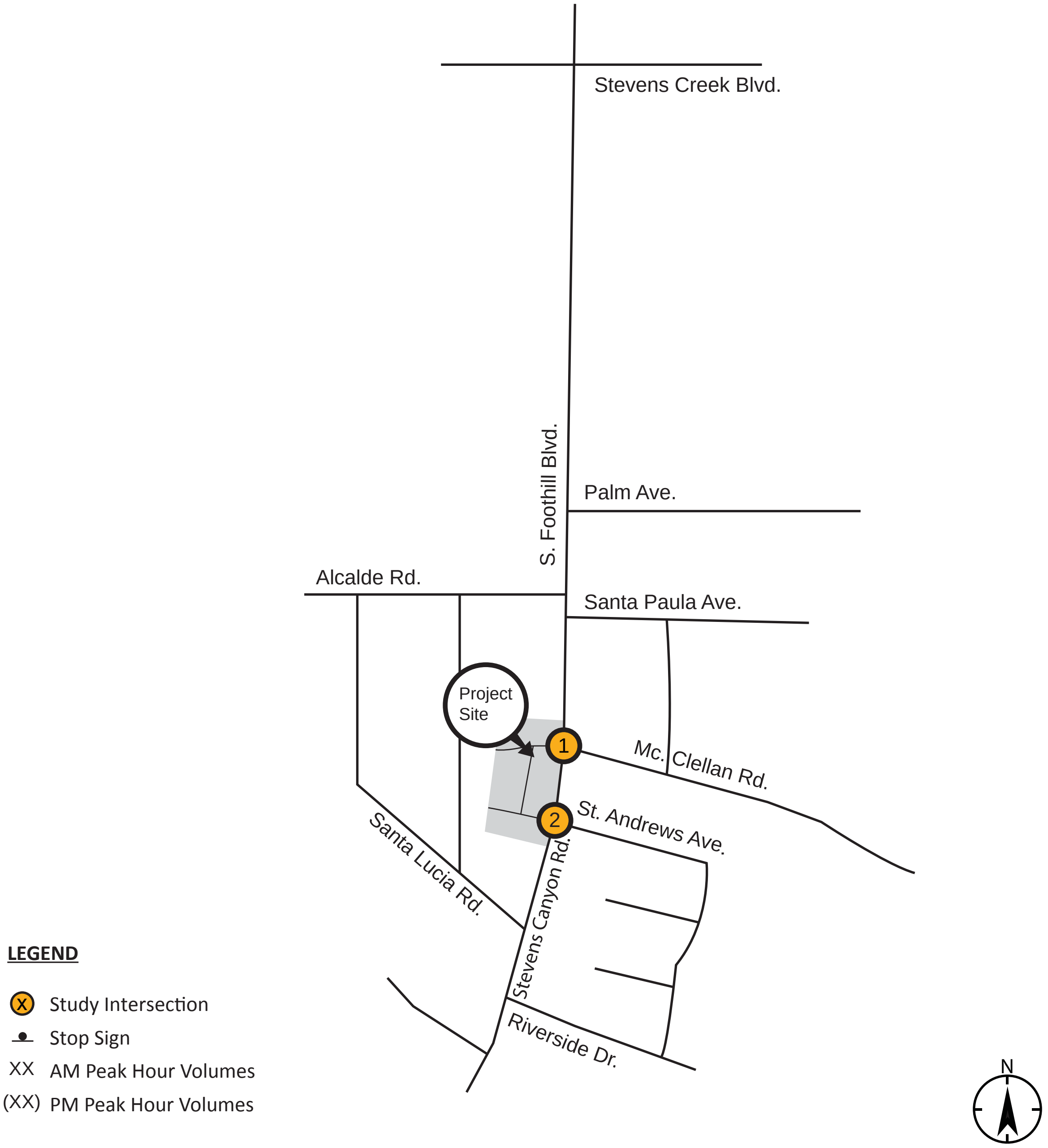
[1] AM – morning peak hour, PM – evening peak hour

[2] Delay – Total control delay for the worst movement is presented for side-street stop-controlled intersections.

[3] LOS – Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the 2000 HCM.

Cumulative Plus Project Conditions, Lane Geometry, Traffic Controls & Turning Movement Volumes





TJKM

Figure 8

SITE ACCESS AND ON-SITE CIRCULATION AND OTHER IMPACTS

SITE ACCESS

This section analyzes site access and internal circulation for vehicles, pedestrians and bicycles based on the site plan presented in **Figure 2**. TJKM reviewed internal and external access for the project site for vehicles, pedestrians, and bicycles.

TJKM reviewed the proposed project site plan to evaluate on-site access to the project. The proposed project's access will be via two full access driveways: one at McClellan Road on South Foothill Boulevard and one at St. Andrews Avenue on Stevens Canyon Road, as shown in the project site plan dated 03/11/2019 (**Figure 2**).

The proposed project is embedded in a predominiately residential neighborhood with resident driveways and neighborhood streets adjacent and in close proximity. Per the site plan, there are three streets in the proposed project: McClellan Road extension, St. Andrews Avenue extension, and a new roadway between the two streets to connect the streets. Service and emergency vehicles would be accommodated with two access points as well as sufficiently wide aisle ways for entering and turning. The internal circulation was reviewed for issues related to queueing, turning radii, safety and circulation aisles. All circulation aisles are 20 feet wide, and the turning radii are adequate for emergency and service vehicles. Installation of Stop control at the project exit driveways with appropriate pavement delineation and signing is recommended.

PEDESTRIAN ACCESS

Pedestrian access to the project site will be facilitated by existing sidewalks on South Foothill Boulevard and Stevens Canyon Road, as well as proposed internal pedestrian circulation facilities. In the project vicinity, the South Foothill Boulevard/McClellan Road intersection has crosswalks marked with ladder striping across the south and east legs of the two-way stop-controlled intersection. The Stevens Canyon Road/St. Andrews Avenue intersection has a crosswalk marked with ladder striping at the north leg of the two-way stop-controlled intersection. Within the project vicinity South Foothill Boulevard, McClellan Road and St. Andrews Avenue have sidewalks on both sides of the roadway. Stevens Canyon Road has sidewalks only on the east side of the roadway. There are no sidewalks on the project side of Stevens Canyon Road. All the existing sidewalks are 5 to 10 feet wide varying along the project area. There is adequate street lighting in the vicinity. An impact to pedestrians would occur if the proposed project disrupts existing pedestrian facilities or create inconsistencies with planned pedestrian facilities or adopted pedestrian system plans, guidelines, policies or standards conflict with the City of Cupertino. The project's site plan proposes eight foot sidewalks along Stevens Canyon Road, on the project side. The proposed project is expected to improve overall pedestrian access and facilities by providing sidewalks and curb cuts within the project vicinity with adequate accessible design (per the ADA) that meets the City of Cupertino design standards. The proposed project provides adequate and appropriate facilities for safe non-motorized mobility. The proposed project will have adequate pedestrian access to the project site from the surrounding area. The proposed project will not result in any impacts to existing or planned pedestrian facilities in the immediate vicinity of the project. The proposed project does not conflict with existing and planned pedestrian facilities; therefore, the impact to pedestrian facilities is **less-than-significant.**

BICYCLE ACCESS

In terms of bicycle access to the project site, there are Class II Bike Lanes along South Foothill Boulevard-Stevens Canyon Road north of Riverside Road, and Class III Bike Routes along Stevens Canyon Road south of Riverside Road to the city limits and McClellan Road. There is adequate signage for the bicyclists to maneuver without confusion. Overall, existing bicycle facilities provide adequate connectivity between the proposed project site and the adjacent residential neighborhoods. The project does not conflict with existing and planned bicycle facilities; therefore, the impact to bicycle facilities is **less-than-significant**.

TRANSIT ACCESS

The transit service within the project vicinity; therefore, the impact to transit facilities is **less-than-significant**.

SIGHT DISTANCE ANALYSIS

Sight distance is evaluated to determine if a driver will have adequate visibility to enter a roadway safely without resulting in a conflict with traffic already on the roadway. According to Highway Design Manual, Chapter 200, 2014, the required minimum stopping sight distance for design speed of 35 mph is 250 feet. The line of sight for vehicles exiting the southern driveway and vehicles travelling southbound d on South Foothill Boulevard is 369 feet. Therefore, vehicles exiting the driveways will be visible to the vehicles travelling southbound and northbound on South Foothill Boulevard. See Appendix F for details.

PARKING

Based on the project site plan dated March 11, 2019 (**Figure 2**) and preliminary underground parking plans, there would be 36 underground spaces, seven surface spaces, and two car garages for each of the 13 townhomes, for a total supply of 69 spaces. Based on the City of Cupertino's parking requirements, 2.8 parking spaces (two car carage/one open) are required per small lot single-family unit. Multi-family residential requires two (one covered/one open) per unit. General retail under 25,000 square feet (sq.ft.) requires one space per 1,250 sq.ft. The base parking supply required would thus be 50 spaces. The proposed parking supply of 69 spaces. Based on the proposed parking spaces to be provided on site, no parking impacts are projected on City streets.

CONCLUSIONS AND RECOMMENDATIONS

Project Trip Generation

The proposed residential development project is expected to generate a net of 322 daily trips in which 14 trips are generated during the a.m. peak hour and 29 trips are generated during the p.m. peak hour. The proposed trip generation does not includes discounts for existing site use.

Existing Conditions

Under this scenario, all the intersections operate within applicable standards of the City of Cupertino during the a.m. and p.m. peak hours.

Existing plus Project Conditions

Under this scenario, all the intersection operate at acceptable standards for both a.m. and p.m. peak hours.

Based on the City of Cupertino impact criteria the project is expected to have a **less-than-significant** impact at the two study intersections.

Cumulative Conditions

Under this scenario, all the intersection operate within applicable jurisdictional standards of City of Cupertino (LOS D) and the VTA's CMP (LOS E) or better during the a.m. and p.m. peak hours.

Cumulative plus Project Conditions

Under this scenario, all the intersection operate at acceptable standards for both a.m. and p.m. peak hours.

Based on the City of Cupertino impact criteria the project is expected to have a **less-than-significant** impact at the two study intersections.

Queuing and Driveway Analysis

The proposed project *does not create a significant impact* on the expected left-turn or right-turn queues at the study intersections. The project driveways are expected to operate at an acceptable LOS and the 95th percentile queuing at the outbound approach of project driveway is expected to be minimal.

Pedestrian, Bicycle and Transit Impacts

The proposed project does not conflict with existing and planned pedestrian or bicycle facilities. There is no transit service around the project vicinity. Therefore, the impact to pedestrian, bicycle facilities and transit facilities is ***less-than-significant***.

On-Site Circulation

TJKM examined the project site plan in order to evaluate the adequacy of on-site vehicle circulation including service trucks and emergency vehicles. The proposed project's access will be via two existing driveways: one driveway at McClellan Road and other one at St Andrews Avenue. Based on the evaluation, the proposed on-site vehicle circulation is adequate and should not result in any sufficient traffic operations issues.

Parking

Based on the proposed parking spaces to be provided on site, no parking impacts are projected on City streets.

Recommendation

TJKM recommends the installation of Stop control at the project's exit driveways with appropriate pavement delineation and signing.

Appendix A – Level of Service Methodology

LEVEL OF SERVICE METHODOLOGY

LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, *Highway Capacity Manual 2000*. *Highway Capacity Manual 2000* represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-I.

Table A-I

Level of Service Description

Facility Type	**Uninterrupted Flow**	**Interrupted Flow**
	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
LOS		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

Source: *Highway Capacity Manual 2000*

Urban Streets

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

Table A-II

Functional and Design Categories for Urban Streets

Criterion	Functional Category			
	Principal Arterial		Minor Arterial	
Mobility function	Very important		Important	
Access function	Very minor		Substantial	
Points connected	Freeways, important activity centers, major traffic generators		Principal arterials	
Predominant trips served	Relatively long trips between major points and through trips entering, leaving, and passing through city		Trips of moderate length within relatively small geographical areas	
Criterion	**Design Category**			
	High-Speed	**Suburban**	**Intermediate**	**Urban**
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

Source: *Highway Capacity Manual 2000*

Table A-III

Urban Street Class based on Function and Design Categories

Design Category	Functional Category	
	Principal Arterial	Minor Arterial
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: *Highway Capacity Manual 2000*

Table A-IV

Urban Street Levels of Service by Class

Urban Street Class	I	II	III	IV
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
Level of Service	**Average Travel Speed (mph)**			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: *Highway Capacity Manual 2000*

Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.,* in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A description of levels of service for signalized intersections can be found in Table A-V.

Table A-V

Description of Level of Service for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase doe not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: *Highway Capacity Manual 2000*

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.,* in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

Table A-VI

Description of Level of Service for Two-Way Stop Controlled Intersections

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: *Highway Capacity Manual 2000*

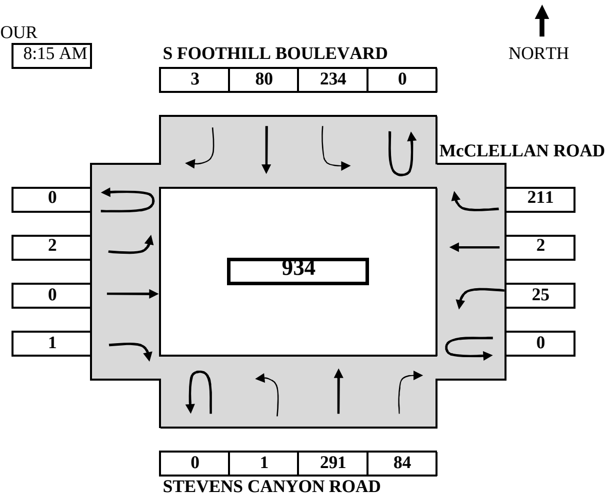
Appendix B – Existing Turning Movement Counts

B.A.Y.M.E.T.R.I.C.S.

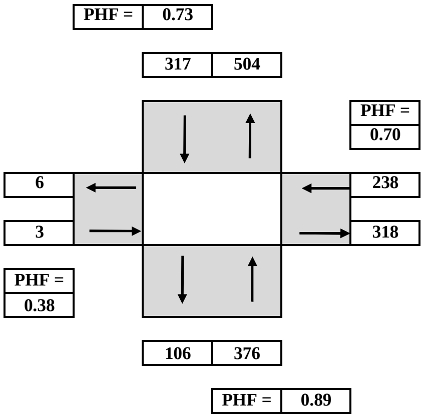
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD - S FOOTHILL BLVD**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**McCLELLAN ROAD**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-1AM**

PEAK HOUR
7:15 AM to 8:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME		**PERIOD**	**NORTHBOUND**				**SOUTHBOUND**				**EASTBOUND**				**WESTBOUND**				TOTAL
From		To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
7:00 AM	to	7:15 AM		0	38	9		48	24	0		0	0	0		3	0	24	**146**
7:15 AM	to	7:30 AM		0	117	36		144	36	0		0	0	0		7	0	68	**408**
7:30 AM	to	7:45 AM		0	191	49		160	52	1		2	0	0		19	0	123	**597**
7:45 AM	to	8:00 AM		1	262	62		213	66	2		2	0	0		25	1	154	**788**
8:00 AM	to	8:15 AM		1	329	93		282	104	3		2	0	1		28	2	235	**1080**
8:15 AM	to	8:30 AM		1	394	99		292	128	4		2	0	1		46	3	306	**1276**
8:30 AM	to	8:45 AM		1	467	106		309	155	5		3	0	1		54	4	339	**1444**
8:45 AM	to	9:00 AM		2	544	114		333	187	5		3	0	1		61	5	369	**1624**
TOTAL BY PERIOD																			
7:00 AM	to	7:15 AM	0	0	38	9	0	48	24	0	0	0	0	0	0	3	0	24	**146**
7:15 AM	to	7:30 AM	0	0	79	27	0	96	12	0	0	0	0	0	0	4	0	44	**262**
7:30 AM	to	7:45 AM	0	0	74	13	0	16	16	1	0	2	0	0	0	12	0	55	**189**
7:45 AM	to	8:00 AM	0	1	71	13	0	53	14	1	0	0	0	0	0	6	1	31	**191**
8:00 AM	to	8:15 AM	0	0	67	31	0	69	38	1	0	0	0	1	0	3	1	81	**292**
8:15 AM	to	8:30 AM	0	0	65	6	0	10	24	1	0	0	0	0	0	18	1	71	**196**
8:30 AM	to	8:45 AM	0	0	73	7	0	17	27	1	0	1	0	0	0	8	1	33	**168**
8:45 AM	to	9:00 AM	0	1	77	8	0	24	32	0	0	0	0	0	0	7	1	30	**180**
HOURLY TOTALS																			
7:00 AM	to	8:00 AM	0	1	262	62	0	213	66	2	0	2	0	0	0	25	1	154	**788**
7:15 AM	to	8:15 AM	0	1	291	84	0	234	80	3	0	2	0	1	0	25	2	211	**934**
7:30 AM	to	8:30 AM	0	1	277	63	0	148	92	4	0	2	0	1	0	39	3	238	**868**
7:45 AM	to	8:45 AM	0	1	276	57	0	149	103	4	0	1	0	1	0	35	4	216	**847**
8:00 AM	to	9:00 AM	0	1	282	52	0	120	121	3	0	1	0	1	0	36	4	215	**836**

PEAK HOUR SUMMARY

7:15 AM to 8:15 AM	**NORTHBOUND**				**SOUTHBOUND**				**EASTBOUND**				**WESTBOUND**				TOTAL
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	
VOLUME	0	1	291	84	0	234	80	3	0	2	0	1	0	25	2	211	**934**
PHF BY MOVEMENT	0.00	0.25	0.92	0.68	0.00	0.61	0.53	0.75	0.00	0.25	0.00	0.25	0.00	0.52	0.50	0.65	OVERALL
PHF BY APPROACH	0.89				0.73				0.38				0.70				0.80
BICYCLE	7				4				0				2				**13**
PEDESTRIAN	0				3				0				2				**5**
	N-LEG				**S-LEG**				**E-LEG**				**W-LEG**				
PEDESTRIAN BY LEG:	0				2				3				0				**5**

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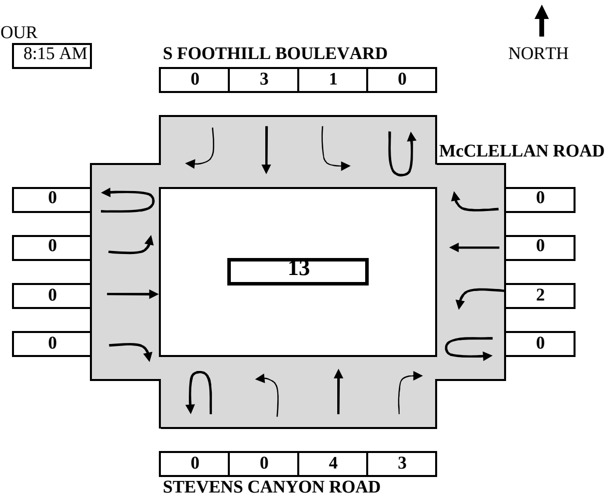
B.A.Y.M.E.T.R.I.C.S.

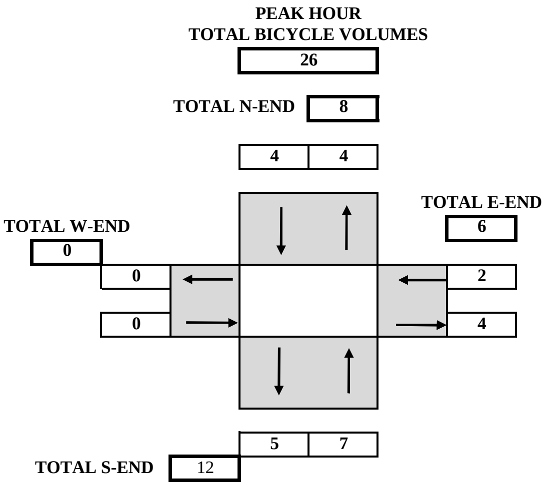
BICYCLE TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD - S FOOTHILL BLVD**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**McCLELLAN ROAD**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-1AM**

PEAK HOUR

7:15 AM to 8:15 AM





TIME From		PERIOD To	NORTHBOUND U-TURN	LEFT	THRU	RIGHT	SOUTHBOUND U-TURN	LEFT	THRU	RIGHT	EASTBOUND U-TURN	LEFT	THRU	RIGHT	WESTBOUND U-TURN	LEFT	THRU	RIGHT	TOTAL
SURVEY DATA																			
7:00 AM	to	7:15 AM	0	0	0	1	0	2	2	0	0	0	0	0	0	0	0	2	**7**
7:15 AM	to	7:30 AM	0	0	0	3	0	2	4	0	0	0	0	0	0	0	0	2	**11**
7:30 AM	to	7:45 AM	0	0	2	3	0	2	5	0	0	0	0	0	0	1	0	2	**15**
7:45 AM	to	8:00 AM	0	0	4	4	0	3	5	0	0	0	0	0	0	2	0	2	**20**
8:00 AM	to	8:15 AM	0	0	4	4	0	3	5	0	0	0	0	0	0	2	0	2	**20**
8:15 AM	to	8:30 AM	0	0	4	4	0	3	6	0	0	0	0	0	0	3	0	3	**23**
8:30 AM	to	8:45 AM	0	0	5	4	0	3	7	0	0	0	0	0	0	3	0	3	**25**
8:45 AM	to	9:00 AM	0	0	6	5	0	3	7	0	0	0	0	0	0	3	0	3	**27**
TOTAL BY PERIOD																			
7:00 AM	to	7:15 AM	0	0	0	1	0	2	2	0	0	0	0	0	0	0	0	2	**7**
7:15 AM	to	7:30 AM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	**4**
7:30 AM	to	7:45 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0	**4**
7:45 AM	to	8:00 AM	0	0	2	1	0	1	0	0	0	0	0	0	0	1	0	0	**5**
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:15 AM	to	8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	**3**
8:30 AM	to	8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**
8:45 AM	to	9:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
HOURLY TOTALS																			
7:00 AM	to	8:00 AM	0	0	4	4	0	3	5	0	0	0	0	0	0	2	0	2	**20**
7:15 AM	to	8:15 AM	0	0	4	3	0	1	3	0	0	0	0	0	0	2	0	0	**13**
7:30 AM	to	8:30 AM	0	0	4	1	0	1	2	0	0	0	0	0	0	3	0	1	**12**
7:45 AM	to	8:45 AM	0	0	3	1	0	1	2	0	0	0	0	0	0	2	0	1	**10**
8:00 AM	to	9:00 AM	0	0	2	1	0	0	2	0	0	0	0	0	0	1	0	1	**7**

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7:15 AM to 8:15 AM					
APPROACH VOLUME	NB	SB	EB	WB	TOTAL
BICYCLE	7	4	0	2	**13**

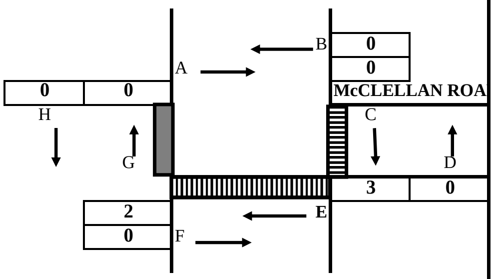
B.A.Y.M.E.T.R.I.C.S.

PEDESTRIAN MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**
N-S APPROACH:	**STEVENS CANYON ROAD - S FOOTHILL BLVD**	**DAY:**	**TUESDAY**
E-W APPROACH:	**McCLELLAN ROAD**	**JURISDICTION:**	**CUPERTINO**
SURVEY PERIOD:	**7:00 AM TO 9:00 AM**	**FILE:**	**3601004-1AM**

PEAK HOUR

07:15 AM TO 08:15 AM **S FOOTHILL BOULEVARD**

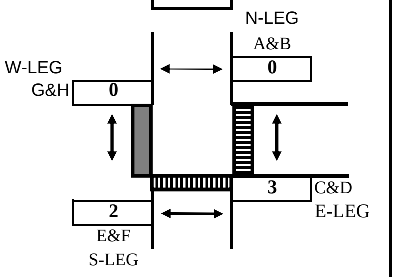


STEVENS CANYON ROAD

PEAK HOUR

TOTAL PEDESTRIAN VOLUMES

5



LEGEND:

▥ CROSSWALK
▬ SIDEWALK
— STOP CONTROL LINE
● STOP

BY LEG:	
N-LEG	**0**
S-LEG	**2**
E-LEG	**3**
W-LEG	**0**

BY DIRECTION:	
NB(D+G)	**0**
SB(C+H)	**3**
EB(A+F)	**0**
WB(B+E)	**2**

TIME PERIOD			**NORTH X-WALK**		**EAST X-WALK**		**SOUTH X-WALK**		**WEST X-WALK**		
From		**To**	***A***	***B***	***C***	***D***	***E***	***F***	***G***	***H***	***TOTAL***
SURVEY DATA											
07:00 AM	---	07:15 AM	0	0	0	0	0	0	0	0	*0*
07:15 AM	---	07:30 AM	0	0	1	0	0	0	0	0	*1*
07:30 AM	---	07:45 AM	0	0	3	0	2	0	0	0	*5*
07:45 AM	---	08:00 AM	0	0	3	0	2	0	0	0	*5*
08:00 AM	---	08:15 AM	0	0	3	0	2	0	0	0	*5*
08:15 AM	---	08:30 AM	0	0	4	0	2	0	0	1	*7*
08:30 AM	---	08:45 AM	0	0	4	0	2	0	0	2	*8*
08:45 AM	---	09:00 AM	0	0	4	0	2	0	0	2	*8*
TOTAL BY PERIOD											
07:00 AM	---	07:15 AM	0	0	0	0	0	0	0	0	*0*
07:15 AM	---	07:30 AM	0	0	1	0	0	0	0	0	*1*
07:30 AM	---	07:45 AM	0	0	2	0	2	0	0	0	*4*
07:45 AM	---	08:00 AM	0	0	0	0	0	0	0	0	*0*
08:00 AM	---	08:15 AM	0	0	0	0	0	0	0	0	*0*
08:15 AM	---	08:30 AM	0	0	1	0	0	0	0	1	*2*
08:30 AM	---	08:45 AM	0	0	0	0	0	0	0	1	*1*
08:45 AM	---	09:00 AM	0	0	0	0	0	0	0	0	*0*
HOURLY TOTALS											
07:00 AM	---	08:00 AM	0	0	3	0	2	0	0	0	*5*
07:15 AM	---	08:15 AM	0	0	3	0	2	0	0	0	*5*
07:30 AM	---	08:30 AM	0	0	3	0	2	0	0	1	*6*
07:45 AM	---	08:45 AM	0	0	1	0	0	0	0	2	*3*
08:00 AM	---	09:00 AM	0	0	1	0	0	0	0	2	*3*

Tel : (510) 232-1271 ***Fax: (510) 232-1272***

12:00 AM to 12:00 AM					
VOLUME BY DIRECTION	NB	SB	EB	WB	TOTAL
PEDESTRIAN	0	3	0	2	**5**
VOLUME BY LEG	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
PEDESTRIAN	0	2	3	0	**5**

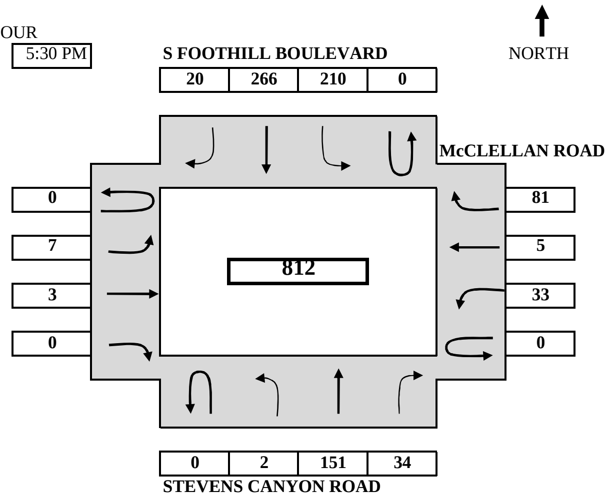
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

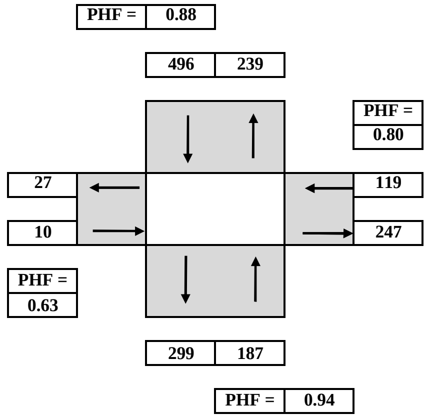
PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD - S FOOTHILL BLVD**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**McCLELLAN ROAD**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-1PM**

PEAK HOUR

4:30 PM to 5:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME From		PERIOD To	NB U-TURN	NB LEFT	NB THRU	NB RIGHT	SB U-TURN	SB LEFT	SB THRU	SB RIGHT	EB U-TURN	EB LEFT	EB THRU	EB RIGHT	WB U-TURN	WB LEFT	WB THRU	WB RIGHT	TOTAL
SURVEY DATA																			
4:00 PM	to	4:15 PM		0	40	7		30	56	3		2	2	0		5	1	8	**154**
4:15 PM	to	4:30 PM		0	65	16		69	103	4		2	2	0		12	2	21	**296**
4:30 PM	to	4:45 PM		0	99	24		104	174	11		3	4	0		23	3	46	**491**
4:45 PM	to	5:00 PM		0	140	33		152	244	15		3	4	0		29	3	56	**679**
5:00 PM	to	5:15 PM		1	180	41		213	297	21		6	5	0		37	6	74	**881**
5:15 PM	to	5:30 PM		2	216	50		279	369	24		9	5	0		45	7	102	**1108**
5:30 PM	to	5:45 PM		3	245	57		329	424	27		11	6	1		54	9	118	**1284**
5:45 PM	to	6:00 PM		3	279	65		375	477	30		12	6	1		61	10	127	**1446**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	0	40	7	0	30	56	3	0	2	2	0	0	5	1	8	**154**
4:15 PM	to	4:30 PM	0	0	25	9	0	39	47	1	0	0	0	0	0	7	1	13	**142**
4:30 PM	to	4:45 PM	0	0	34	8	0	35	71	7	0	1	2	0	0	11	1	25	**195**
4:45 PM	to	5:00 PM	0	0	41	9	0	48	70	4	0	0	0	0	0	6	0	10	**188**
5:00 PM	to	5:15 PM	0	1	40	8	0	61	53	6	0	3	1	0	0	8	3	18	**202**
5:15 PM	to	5:30 PM	0	1	36	9	0	66	72	3	0	3	0	0	0	8	1	28	**227**
5:30 PM	to	5:45 PM	0	1	29	7	0	50	55	3	0	2	1	1	0	9	2	16	**176**
5:45 PM	to	6:00 PM	0	0	34	8	0	46	53	3	0	1	0	0	0	7	1	9	**162**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	0	140	33	0	152	244	15	0	3	4	0	0	29	3	56	**679**
4:15 PM	to	5:15 PM	0	1	140	34	0	183	241	18	0	4	3	0	0	32	5	66	**727**
4:30 PM	to	5:30 PM	0	2	151	34	0	210	266	20	0	7	3	0	0	33	5	81	**812**
4:45 PM	to	5:45 PM	0	3	146	33	0	225	250	16	0	8	2	1	0	31	6	72	**793**
5:00 PM	to	6:00 PM	0	3	139	32	0	223	233	15	0	9	2	1	0	32	7	71	**767**

PEAK HOUR SUMMARY

4:30 PM to 5:30 PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	
VOLUME	0	2	151	34	0	210	266	20	0	7	3	0	0	33	5	81	**812**
PHF BY MOVEMENT	0.00	0.50	0.92	0.94	0.00	0.80	0.92	0.71	0.00	0.58	0.38	0.00	0.00	0.75	0.42	0.72	OVERALL
PHF BY APPROACH	0.94				0.88				0.63				0.80				0.89
BICYCLE	9				5				0				4				**18**
PEDESTRIAN	1				1				0				0				**2**
	N-LEG				**S-LEG**				**E-LEG**				**W-LEG**				
PEDESTRIAN BY LEG:	0				0				2				0				**2**

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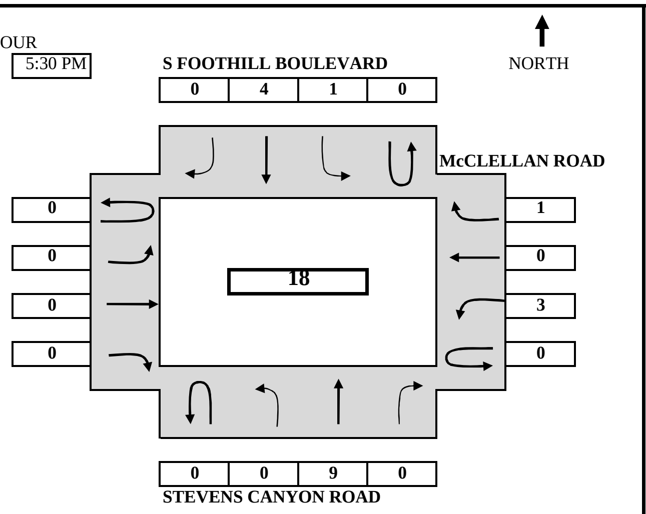
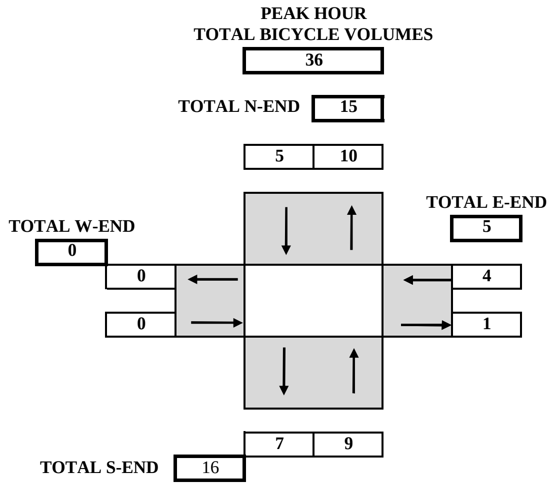
B.A.Y.M.E.T.R.I.C.S.

BICYCLE TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD - S FOOTHILL BLVD**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**McCLELLAN ROAD**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-1PM**

PEAK HOUR
4:30 PM to 5:30 PM





TIME	PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From		To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
4:00 PM	to	4:15 PM	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	**6**
4:15 PM	to	4:30 PM	0	0	2	2	0	4	2	0	0	2	0	0	0	0	0	0	**12**
4:30 PM	to	4:45 PM	0	0	5	2	0	4	3	0	0	2	0	0	0	1	0	0	**17**
4:45 PM	to	5:00 PM	0	0	7	2	0	4	4	0	0	2	0	0	0	1	0	1	**21**
5:00 PM	to	5:15 PM	0	0	11	2	0	5	6	0	0	2	0	0	0	2	0	1	**29**
5:15 PM	to	5:30 PM	0	0	11	2	0	5	6	0	0	2	0	0	0	3	0	1	**30**
5:30 PM	to	5:45 PM	0	0	11	3	0	6	7	0	0	2	0	0	0	3	0	1	**33**
5:45 PM	to	6:00 PM	0	0	12	3	0	6	7	0	0	2	0	0	0	3	0	2	**35**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	**6**
4:15 PM	to	4:30 PM	0	0	0	1	0	1	2	0	0	2	0	0	0	0	0	0	**6**
4:30 PM	to	4:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	1	0	0	**5**
4:45 PM	to	5:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	**4**
5:00 PM	to	5:15 PM	0	0	4	0	0	1	2	0	0	0	0	0	0	1	0	0	**8**
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
5:30 PM	to	5:45 PM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	**3**
5:45 PM	to	6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	**2**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	0	7	2	0	4	4	0	0	2	0	0	0	1	0	1	**21**
4:15 PM	to	5:15 PM	0	0	9	1	0	2	6	0	0	2	0	0	0	2	0	1	**23**
4:30 PM	to	5:30 PM	0	0	9	0	0	1	4	0	0	0	0	0	0	3	0	1	**18**
4:45 PM	to	5:45 PM	0	0	6	1	0	2	4	0	0	0	0	0	0	2	0	1	**16**
5:00 PM	to	6:00 PM	0	0	5	1	0	2	3	0	0	0	0	0	0	2	0	1	**14**

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

4:30 PM to 5:30 PM					
APPROACH VOLUME	NB	SB	EB	WB	TOTAL
BICYCLE	9	5	0	4	**18**

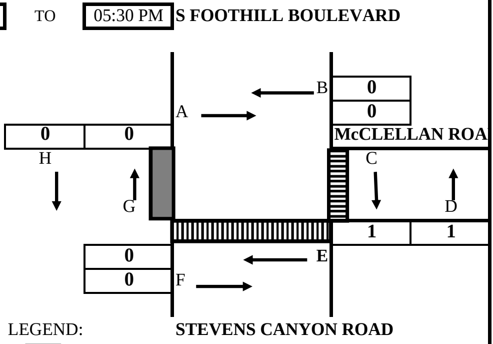
B.A.Y.M.E.T.R.I.C.S.

PEDESTRIAN MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**
N-S APPROACH:	**STEVENS CANYON ROAD - S FOOTHILL BLVD**	**DAY:**	**TUESDAY**
E-W APPROACH:	**McCLELLAN ROAD**	**JURISDICTION:**	**CUPERTINO**
SURVEY PERIOD:	**4:00 PM TO 6:00 PM**	**FILE:**	**3601004-1PM**

PEAK HOUR

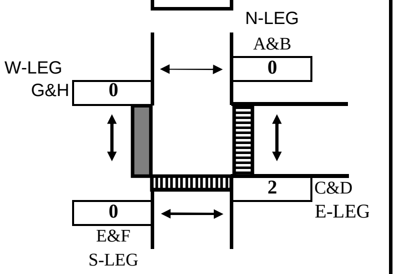
04:30 PM TO 05:30 PM



PEAK HOUR

TOTAL PEDESTRIAN VOLUMES

2



LEGEND:

- ▥ CROSSWALK
- ■ SIDEWALK
- — STOP CONTROL LINE
- ● STOP

BY LEG:	
N-LEG	**0**
S-LEG	**0**
E-LEG	**2**
W-LEG	**0**

BY DIRECTION:	
NB(D+G)	1
SB(C+H)	1
EB(A+F)	0
WB(B+E)	0

TIME PERIOD			**NORTH X-WALK**		**EAST X-WALK**		**SOUTH X-WALK**		**WEST X-WALK**		
From		**To**	***A***	***B***	***C***	***D***	***E***	***F***	***G***	***H***	***TOTAL***
SURVEY DATA											
04:00 PM	---	04:15 PM	0	0	0	0	0	0	0	0	*0*
04:15 PM	---	04:30 PM	0	0	0	0	0	0	0	0	*0*
04:30 PM	---	04:45 PM	0	0	0	0	0	0	0	0	*0*
04:45 PM	---	05:00 PM	0	0	0	0	0	0	0	0	*0*
05:00 PM	---	05:15 PM	0	0	1	0	0	0	0	0	*1*
05:15 PM	---	05:30 PM	0	0	1	1	0	0	0	0	*2*
05:30 PM	---	05:45 PM	0	0	1	1	0	0	0	0	*2*
05:45 PM	---	06:00 PM	0	0	1	2	0	0	0	0	*3*
TOTAL BY PERIOD											
04:00 PM	---	04:15 PM	0	0	0	0	0	0	0	0	*0*
04:15 PM	---	04:30 PM	0	0	0	0	0	0	0	0	*0*
04:30 PM	---	04:45 PM	0	0	0	0	0	0	0	0	*0*
04:45 PM	---	05:00 PM	0	0	0	0	0	0	0	0	*0*
05:00 PM	---	05:15 PM	0	0	1	0	0	0	0	0	*1*
05:15 PM	---	05:30 PM	0	0	0	1	0	0	0	0	*1*
05:30 PM	---	05:45 PM	0	0	0	0	0	0	0	0	*0*
05:45 PM	---	06:00 PM	0	0	0	1	0	0	0	0	*1*
HOURLY TOTALS											
04:00 PM	---	05:00 PM	0	0	0	0	0	0	0	0	*0*
04:15 PM	---	05:15 PM	0	0	1	0	0	0	0	0	*1*
04:30 PM	---	05:30 PM	0	0	1	1	0	0	0	0	*2*
04:45 PM	---	05:45 PM	0	0	1	1	0	0	0	0	*2*
05:00 PM	---	06:00 PM	0	0	1	2	0	0	0	0	*3*

Tel : (510) 232-1271 ***Fax: (510) 232-1272***

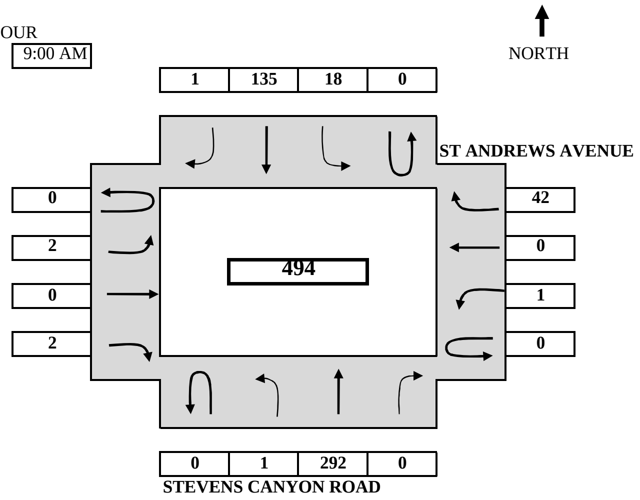
12:00 AM to 12:00 AM					
VOLUME BY DIRECTION	NB	SB	EB	WB	TOTAL
PEDESTRIAN	1	1	0	0	2
VOLUME BY LEG	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
PEDESTRIAN	0	0	2	0	2

B.A.Y.M.E.T.R.I.C.S.

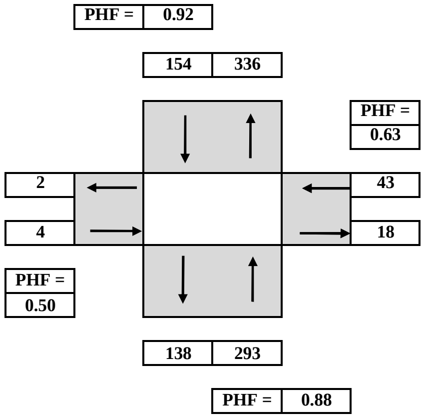
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**
E-W APPROACH:	**ST ANDREWS AVENUE**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-2AM**

PEAK HOUR
8:00 AM to 9:00 AM



ARRIVAL / DEPARTURE VOLUMES



TIME		**PERIOD**	**NORTHBOUND**				**SOUTHBOUND**				**EASTBOUND**				**WESTBOUND**				TOTAL
From		To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
7:00 AM	to	7:15 AM		0	42	0		0	27	0		0	0	0		0	0	5	**74**
7:15 AM	to	7:30 AM		0	132	0		1	41	0		0	0	0		0	0	16	**190**
7:30 AM	to	7:45 AM		0	216	0		4	67	0		1	0	0		0	0	24	**312**
7:45 AM	to	8:00 AM		0	288	0		4	87	0		2	0	0		0	0	34	**415**
8:00 AM	to	8:15 AM		0	371	0		8	123	1		3	0	1		0	0	51	**558**
8:15 AM	to	8:30 AM		0	436	0		14	159	1		3	0	1		0	0	55	**669**
8:30 AM	to	8:45 AM		0	501	0		18	187	1		4	0	1		0	0	64	**776**
8:45 AM	to	9:00 AM		1	580	0		22	222	1		4	0	2		1	0	76	**909**
TOTAL BY PERIOD																			
7:00 AM	to	7:15 AM	0	0	42	0	0	0	27	0	0	0	0	0	0	0	0	5	**74**
7:15 AM	to	7:30 AM	0	0	90	0	0	1	14	0	0	0	0	0	0	0	0	11	**116**
7:30 AM	to	7:45 AM	0	0	84	0	0	3	26	0	0	1	0	0	0	0	0	8	**122**
7:45 AM	to	8:00 AM	0	0	72	0	0	0	20	0	0	1	0	0	0	0	0	10	**103**
8:00 AM	to	8:15 AM	0	0	83	0	0	4	36	1	0	1	0	1	0	0	0	17	**143**
8:15 AM	to	8:30 AM	0	0	65	0	0	6	36	0	0	0	0	0	0	0	0	4	**111**
8:30 AM	to	8:45 AM	0	0	65	0	0	4	28	0	0	1	0	0	0	0	0	9	**107**
8:45 AM	to	9:00 AM	0	1	79	0	0	4	35	0	0	0	0	1	0	1	0	12	**133**
HOURLY TOTALS																			
7:00 AM	to	8:00 AM	0	0	288	0	0	4	87	0	0	2	0	0	0	0	0	34	**415**
7:15 AM	to	8:15 AM	0	0	329	0	0	8	96	1	0	3	0	1	0	0	0	46	**484**
7:30 AM	to	8:30 AM	0	0	304	0	0	13	118	1	0	3	0	1	0	0	0	39	**479**
7:45 AM	to	8:45 AM	0	0	285	0	0	14	120	1	0	3	0	1	0	0	0	40	**464**
8:00 AM	to	9:00 AM	0	1	292	0	0	18	135	1	0	2	0	2	0	1	0	42	**494**

PEAK HOUR SUMMARY

8:00 AM to 9:00 AM	**NORTHBOUND**				**SOUTHBOUND**				**EASTBOUND**				**WESTBOUND**				TOTAL
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	
VOLUME	0	1	292	0	0	18	135	1	0	2	0	2	0	1	0	42	**494**
PHF BY MOVEMENT	0.00	0.25	0.88	0.00	0.00	0.75	0.94	0.25	0.00	0.50	0.00	0.50	0.00	0.25	0.00	0.62	OVERALL
PHF BY APPROACH	0.88				0.92				0.50				0.63				0.86
BICYCLE	3				3				0				0				**6**
PEDESTRIAN	0				3				1				0				**4**
	N-LEG				**S-LEG**				**E-LEG**				**W-LEG**				
PEDESTRIAN BY LEG:	1				0				2				1				**4**

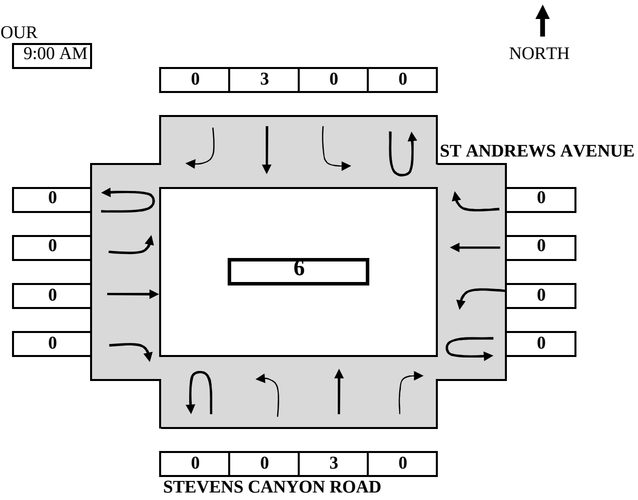
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

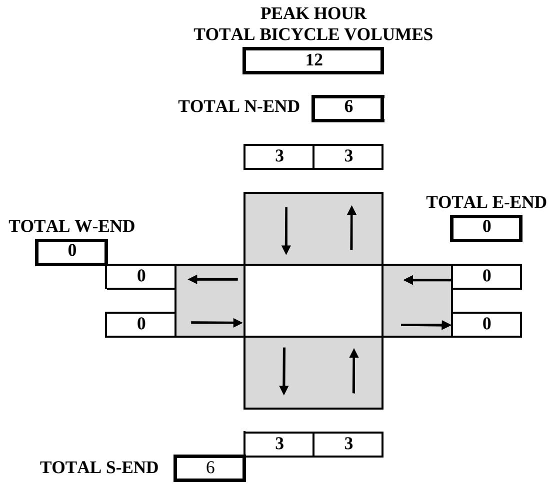
B.A.Y.M.E.T.R.I.C.S.

BICYCLE TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**	
N-S APPROACH:	**STEVENS CANYON ROAD**	**SURVEY TIME:**	**7:00 AM**	**TO**	**9:00 AM**	
E-W APPROACH:	**ST ANDREWS AVENUE**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-2AM**	

PEAK HOUR
8:00 AM to 9:00 AM





TIME		PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From		To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
7:00 AM	to	7:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	**3**
7:15 AM	to	7:30 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	1	**5**
7:30 AM	to	7:45 AM	0	0	3	0	0	0	6	0	0	0	0	0	0	0	0	1	**10**
7:45 AM	to	8:00 AM	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	2	**14**
8:00 AM	to	8:15 AM	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	2	**14**
8:15 AM	to	8:30 AM	0	0	5	0	0	0	9	0	0	0	0	0	0	0	0	2	**16**
8:30 AM	to	8:45 AM	0	0	6	0	0	0	10	0	0	0	0	0	0	0	0	2	**18**
8:45 AM	to	9:00 AM	0	0	8	0	0	0	10	0	0	0	0	0	0	0	0	2	**20**
TOTAL BY PERIOD																			
7:00 AM	to	7:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	**3**
7:15 AM	to	7:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**
7:30 AM	to	7:45 AM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	**5**
7:45 AM	to	8:00 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	**4**
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:15 AM	to	8:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
8:30 AM	to	8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**
8:45 AM	to	9:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
HOURLY TOTALS																			
7:00 AM	to	8:00 AM	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	2	**14**
7:15 AM	to	8:15 AM	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	1	**11**
7:30 AM	to	8:30 AM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	1	**11**
7:45 AM	to	8:45 AM	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	1	**8**
8:00 AM	to	9:00 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	**6**

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

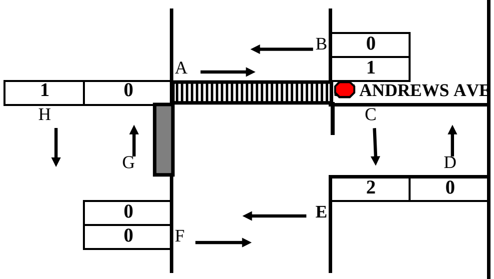
8:00 AM to 9:00 AM					
APPROACH VOLUME	NB	SB	EB	WB	TOTAL
BICYCLE	3	3	0	0	**6**

B.A.Y.M.E.T.R.I.C.S.

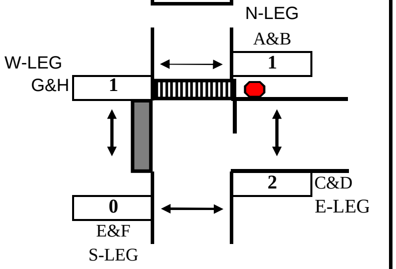
PEDESTRIAN MOVEMENT SUMMARY

PROJECT: TRAFFIC COUNTS IN CUPERTINO
SURVEY DATE: 1/12/2016
N-S APPROACH: STEVENS CANYON ROAD
DAY: TUESDAY
E-W APPROACH: ST ANDREWS AVENUE
JURISDICTION: CUPERTINO
SURVEY PERIOD: 7:00 AM TO 9:00 AM
FILE: 3601004-2AM

PEAK HOUR
08:00 AM TO 09:00 AM



PEAK HOUR
TOTAL PEDESTRIAN VOLUMES
4



LEGEND:
▥ CROSSWALK
▬ SIDEWALK
— STOP CONTROL LINE
🛑 STOP

BY LEG:	
N-LEG	**1**
S-LEG	**0**
E-LEG	**2**
W-LEG	**1**

BY DIRECTION:	
NB(D+G)	**0**
SB(C+H)	**3**
EB(A+F)	**1**
WB(B+E)	**0**

TIME PERIOD			**NORTH X-WALK**		**EAST X-WALK**		**SOUTH X-WALK**		**WEST X-WALK**		
From		**To**	***A***	***B***	***C***	***D***	***E***	***F***	***G***	***H***	***TOTAL***
SURVEY DATA											
07:00 AM	---	07:15 AM	1	0	0	0	0	0	1	0	*2*
07:15 AM	---	07:30 AM	1	0	0	1	0	0	1	0	*3*
07:30 AM	---	07:45 AM	1	0	0	1	0	0	1	0	*3*
07:45 AM	---	08:00 AM	2	0	0	4	0	0	2	0	*8*
08:00 AM	---	08:15 AM	2	0	0	4	0	0	2	0	*8*
08:15 AM	---	08:30 AM	2	0	1	4	0	0	2	1	*10*
08:30 AM	---	08:45 AM	3	0	1	4	0	0	2	1	*11*
08:45 AM	---	09:00 AM	3	0	2	4	0	0	2	1	*12*
TOTAL BY PERIOD											
07:00 AM	---	07:15 AM	1	0	0	0	0	0	1	0	*2*
07:15 AM	---	07:30 AM	0	0	0	1	0	0	0	0	*1*
07:30 AM	---	07:45 AM	0	0	0	0	0	0	0	0	*0*
07:45 AM	---	08:00 AM	1	0	0	3	0	0	1	0	*5*
08:00 AM	---	08:15 AM	0	0	0	0	0	0	0	0	*0*
08:15 AM	---	08:30 AM	0	0	1	0	0	0	0	1	*2*
08:30 AM	---	08:45 AM	1	0	0	0	0	0	0	0	*1*
08:45 AM	---	09:00 AM	0	0	1	0	0	0	0	0	*1*
HOURLY TOTALS											
07:00 AM	---	08:00 AM	2	0	0	4	0	0	2	0	*8*
07:15 AM	---	08:15 AM	1	0	0	4	0	0	1	0	*6*
07:30 AM	---	08:30 AM	1	0	1	3	0	0	1	1	*7*
07:45 AM	---	08:45 AM	2	0	1	3	0	0	1	1	*8*
08:00 AM	---	09:00 AM	1	0	2	0	0	0	0	1	*4*

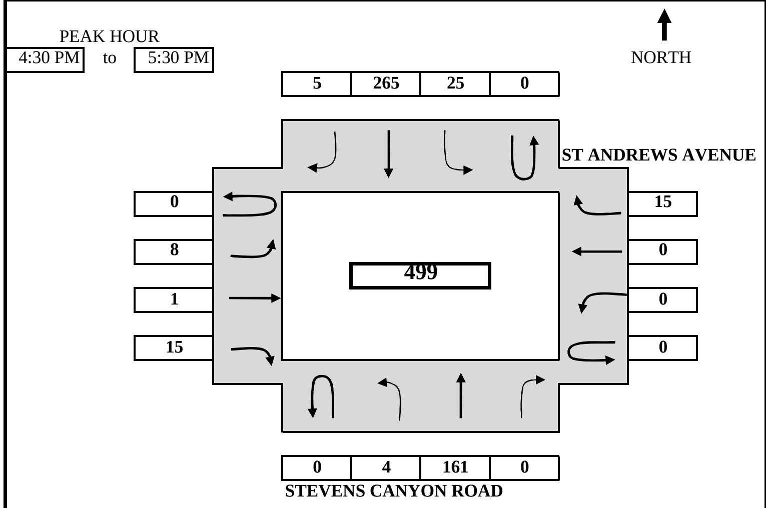
Tel : (510) 232-1271 ***Fax: (510) 232-1272***

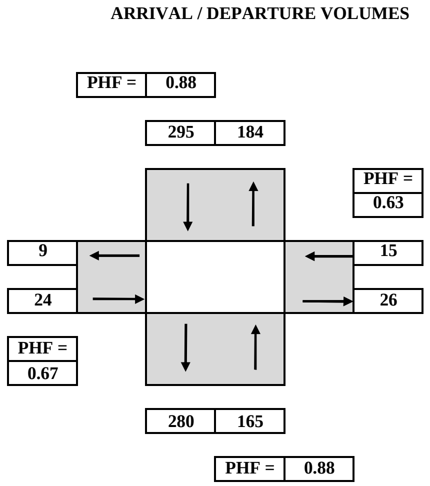
12:00 AM to 12:00 AM					
VOLUME BY DIRECTION	NB	SB	EB	WB	TOTAL
PEDESTRIAN	0	3	1	0	**4**
VOLUME BY LEG	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
PEDESTRIAN	1	0	2	1	**4**

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**ST ANDREWS AVENUE**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-2PM**





TIME		PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From		To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
4:00 PM	to	4:15 PM		1	43	0		5	52	1		2	1	4		0	0	1	**110**
4:15 PM	to	4:30 PM		2	75	0		11	100	1		2	1	5		0	0	4	**201**
4:30 PM	to	4:45 PM		2	111	0		19	176	1		5	1	8		0	0	6	**329**
4:45 PM	to	5:00 PM		3	153	0		25	242	6		7	1	10		0	0	12	**459**
5:00 PM	to	5:15 PM		5	198	0		28	297	6		8	2	17		0	0	16	**577**
5:15 PM	to	5:30 PM		6	236	0		36	365	6		10	2	20		0	0	19	**700**
5:30 PM	to	5:45 PM		6	271	0		41	426	7		11	2	24		0	0	23	**811**
5:45 PM	to	6:00 PM		6	308	0		48	482	7		13	2	24		0	0	27	**917**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	1	43	0	0	5	52	1	0	2	1	4	0	0	0	1	**110**
4:15 PM	to	4:30 PM	0	1	32	0	0	6	48	0	0	0	0	1	0	0	0	3	**91**
4:30 PM	to	4:45 PM	0	0	36	0	0	8	76	0	0	3	0	3	0	0	0	2	**128**
4:45 PM	to	5:00 PM	0	1	42	0	0	6	66	5	0	2	0	2	0	0	0	6	**130**
5:00 PM	to	5:15 PM	0	2	45	0	0	3	55	0	0	1	1	7	0	0	0	4	**118**
5:15 PM	to	5:30 PM	0	1	38	0	0	8	68	0	0	2	0	3	0	0	0	3	**123**
5:30 PM	to	5:45 PM	0	0	35	0	0	5	61	1	0	1	0	4	0	0	0	4	**111**
5:45 PM	to	6:00 PM	0	0	37	0	0	7	56	0	0	2	0	0	0	0	0	4	**106**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	3	153	0	0	25	242	6	0	7	1	10	0	0	0	12	**459**
4:15 PM	to	5:15 PM	0	4	155	0	0	23	245	5	0	6	1	13	0	0	0	15	**467**
4:30 PM	to	5:30 PM	0	4	161	0	0	25	265	5	0	8	1	15	0	0	0	15	**499**
4:45 PM	to	5:45 PM	0	4	160	0	0	22	250	6	0	6	1	16	0	0	0	17	**482**
5:00 PM	to	6:00 PM	0	3	155	0	0	23	240	1	0	6	1	14	0	0	0	15	**458**

PEAK HOUR SUMMARY

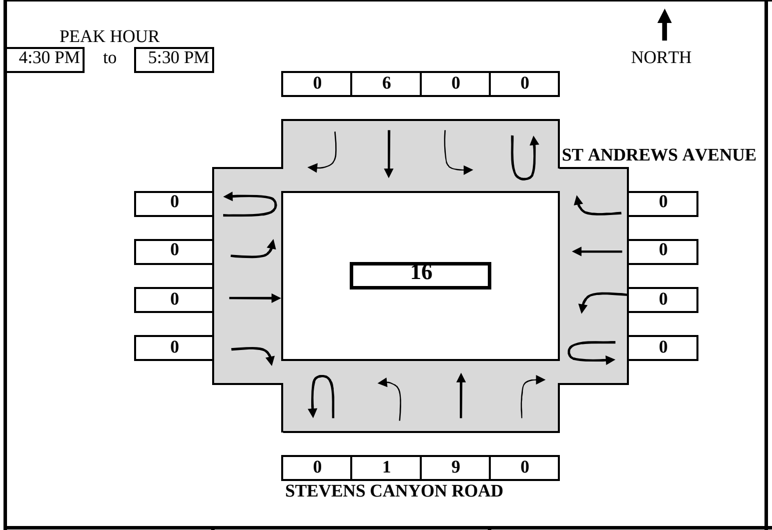
4:30 PM to 5:30 PM	**NORTHBOUND**				**SOUTHBOUND**				**EASTBOUND**				**WESTBOUND**				TOTAL
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	
VOLUME	0	4	161	0	0	25	265	5	0	8	1	15	0	0	0	15	**499**
PHF BY MOVEMENT	0.00	0.50	0.89	0.00	0.00	0.78	0.87	0.25	0.00	0.67	0.25	0.54	0.00	0.00	0.00	0.63	OVERALL
PHF BY APPROACH	0.88				0.88				0.67				0.63				0.96
BICYCLE	10				6				0				0				**16**
PEDESTRIAN	2				5				0				2				**9**
	N-LEG				**S-LEG**				**E-LEG**				**W-LEG**				
PEDESTRIAN BY LEG:	1				1				5				2				**9**

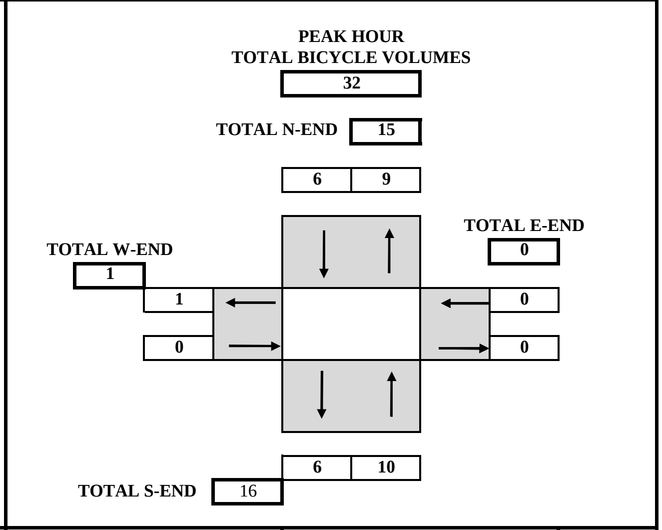
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

BICYCLE TURNING MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**	**DAY:**	**TUESDAY**
N-S APPROACH:	**STEVENS CANYON ROAD**	**SURVEY TIME:**	**4:00 PM**	**TO**	**6:00 PM**
E-W APPROACH:	**ST ANDREWS AVENUE**	**JURISDICTION:**	**CUPERTINO**	**FILE:**	**3601004-2PM**





TIME		PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From		To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
4:00 PM	to	4:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
4:15 PM	to	4:30 PM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	**6**
4:30 PM	to	4:45 PM	0	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	**11**
4:45 PM	to	5:00 PM	0	0	9	0	0	0	5	0	0	0	0	0	0	0	0	0	**14**
5:00 PM	to	5:15 PM	0	1	13	0	0	0	7	0	0	0	0	0	0	0	0	0	**21**
5:15 PM	to	5:30 PM	0	1	13	0	0	0	8	0	0	0	0	0	0	0	0	0	**22**
5:30 PM	to	5:45 PM	0	1	14	0	0	0	10	0	0	0	0	0	0	0	0	0	**25**
5:45 PM	to	6:00 PM	0	1	15	0	0	0	10	0	0	0	0	0	0	0	0	0	**26**
TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
4:15 PM	to	4:30 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	**3**
4:30 PM	to	4:45 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	**5**
4:45 PM	to	5:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	**3**
5:00 PM	to	5:15 PM	0	1	4	0	0	0	2	0	0	0	0	0	0	0	0	0	**7**
5:15 PM	to	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
5:30 PM	to	5:45 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	**3**
5:45 PM	to	6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	0	9	0	0	0	5	0	0	0	0	0	0	0	0	0	**14**
4:15 PM	to	5:15 PM	0	1	10	0	0	0	7	0	0	0	0	0	0	0	0	0	**18**
4:30 PM	to	5:30 PM	0	1	9	0	0	0	6	0	0	0	0	0	0	0	0	0	**16**
4:45 PM	to	5:45 PM	0	1	7	0	0	0	6	0	0	0	0	0	0	0	0	0	**14**
5:00 PM	to	6:00 PM	0	1	6	0	0	0	5	0	0	0	0	0	0	0	0	0	**12**

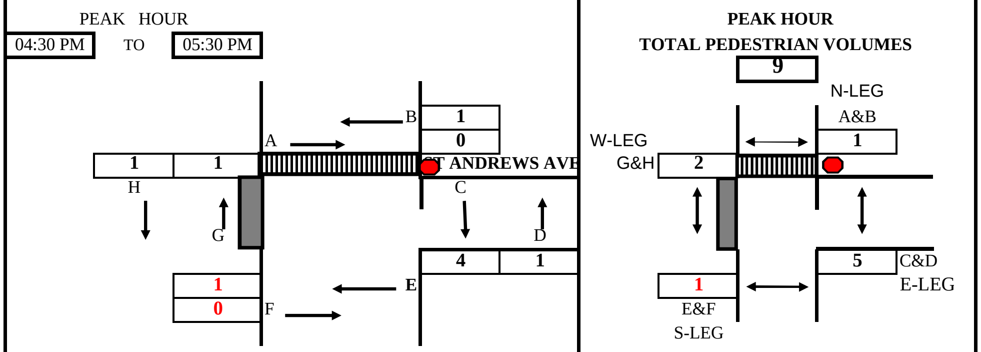
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

4:30 PM to 5:30 PM					
APPROACH VOLUME	NB	SB	EB	WB	TOTAL
BICYCLE	10	6	0	0	**16**

B.A.Y.M.E.T.R.I.C.S.

PEDESTRIAN MOVEMENT SUMMARY

PROJECT:	**TRAFFIC COUNTS IN CUPERTINO**	**SURVEY DATE:**	**1/12/2016**
N-S APPROACH:	**STEVENS CANYON ROAD**	**DAY:**	**TUESDAY**
E-W APPROACH:	**ST ANDREWS AVENUE**	**JURISDICTION:**	**CUPERTINO**
SURVEY PERIOD:	**4:00 PM TO 6:00 PM**	**FILE:**	**3601004-2PM**



STEVENS CANYON ROAD

LEGEND:
- ▥ CROSSWALK
- ▬ SIDEWALK
- — STOP CONTROL LINE
- ⬣ STOP
- * J-WALK IN RED

BY LEG:	
N-LEG	1
S-LEG	1
E-LEG	5
W-LEG	2

BY DIRECTION:	
NB(D+G)	2
SB(C+H)	5
EB(A+F)	0
WB(B+E)	2

TIME PERIOD			**NORTH X-WALK**		**EAST X-WALK**		**SOUTH X-WALK**		**WEST X-WALK**		
From		**To**	***A***	***B***	***C***	***D***	***E****	***F****	***G***	***H***	***TOTAL***
SURVEY DATA											
04:00 PM	---	04:15 PM	0	0	1	0	0	0	0	0	*1*
04:15 PM	---	04:30 PM	0	0	2	1	0	1	1	0	*5*
04:30 PM	---	04:45 PM	0	0	3	2	1	1	1	0	*8*
04:45 PM	---	05:00 PM	0	1	4	2	1	1	1	1	*11*
05:00 PM	---	05:15 PM	0	1	6	2	1	1	2	1	*14*
05:15 PM	---	05:30 PM	0	1	6	2	1	1	2	1	*14*
05:30 PM	---	05:45 PM	0	1	8	3	1	1	2	1	*17*
05:45 PM	---	06:00 PM	0	1	8	4	1	1	2	1	*18*
TOTAL BY PERIOD											
04:00 PM	---	04:15 PM	0	0	1	0	0	0	0	0	*1*
04:15 PM	---	04:30 PM	0	0	1	1	0	1	1	0	*4*
04:30 PM	---	04:45 PM	0	0	1	1	1	0	0	0	*3*
04:45 PM	---	05:00 PM	0	1	1	0	0	0	0	1	*3*
05:00 PM	---	05:15 PM	0	0	2	0	0	0	1	0	*3*
05:15 PM	---	05:30 PM	0	0	0	0	0	0	0	0	*0*
05:30 PM	---	05:45 PM	0	0	2	1	0	0	0	0	*3*
05:45 PM	---	06:00 PM	0	0	0	1	0	0	0	0	*1*
HOURLY TOTALS											
04:00 PM	---	05:00 PM	0	1	4	2	1	1	1	1	*11*
04:15 PM	---	05:15 PM	0	1	5	2	1	1	2	1	*13*
04:30 PM	---	05:30 PM	0	1	4	1	1	0	1	1	*9*
04:45 PM	---	05:45 PM	0	1	5	1	0	0	1	1	*9*
05:00 PM	---	06:00 PM	0	0	4	2	0	0	1	0	*7*

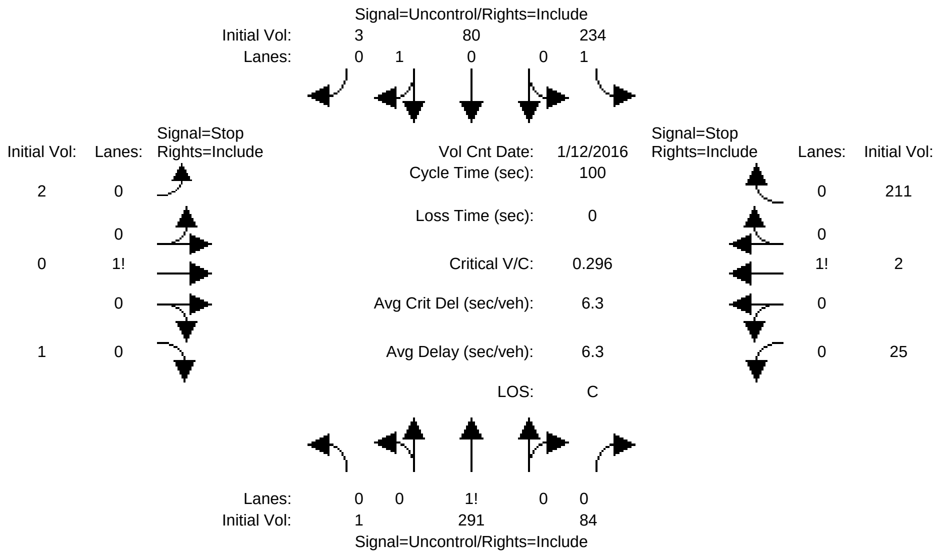
Tel : (510) 232-1271 ***Fax: (510) 232-1272***

12:00 AM to 12:00 AM					
VOLUME BY DIRECTION	NB	SB	EB	WB	TOTAL
PEDESTRIAN	2	5	0	2	**9**
VOLUME BY LEG	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
PEDESTRIAN	1	1	5	2	**9**

Appendix C – Existing Conditions Intersections Level of Service Worksheets

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
Existing Conditions AM

Intersection #1: Foothill Blvd/McClellan Road



```
Street Name:Foothill Blvd-Stevens Canyon Road          McClellan Road
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:        1  291     84   234   80      3     2    0      1    25    2   211
Growth Adj:   1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00  1.00
Initial Bse:     1  291     84   234   80      3     2    0      1    25    2   211
User Adj:     1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00  1.00
PHF Adj:      1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00  1.00
PHF Volume:      1  291     84   234   80      3     2    0      1    25    2   211
Reduct Vol:      0    0      0     0    0      0     0    0      0     0    0     0
FinalVolume:     1  291     84   234   80      3     2    0      1    25    2   211
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5    6.2   7.1  6.5    6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0    3.3   3.5  4.0    3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   83 xxxx xxxxx   375 xxxx xxxxx   991  927     82   885  886    333
Potent Cap.: 1527 xxxx xxxxx  1195 xxxx xxxxx   227  271    984   268  286    713
Move Cap.:   1527 xxxx xxxxx  1195 xxxx xxxxx   135  217    984   227  230    713
Volume/Cap:  0.00 xxxx  xxxx  0.20 xxxx  xxxx  0.01 0.00   0.00  0.11 0.01   0.30
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.7 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.4 xxxx xxxxx   8.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  189 xxxxx  xxxx  574 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx  2.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 24.3 xxxxx xxxxx 15.6 xxxxx
Shared LOS:     *    *     *     *    *     *     *    C     *     *    C     *
ApproachDel:     xxxxxx           xxxxxx               24.3             15.6
ApproachLOS:        *                *                    C                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
```

```
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  291    84   234   80     3     2    0     1    25    2   211
ApproachDel:    xxxxxx           xxxxxx             24.3             15.6
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=934]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=238]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=934]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  291    84   234   80     3     2    0     1    25    2   211
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             693
Minor Approach Volume:           238
Minor Approach Volume Threshold: 411
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
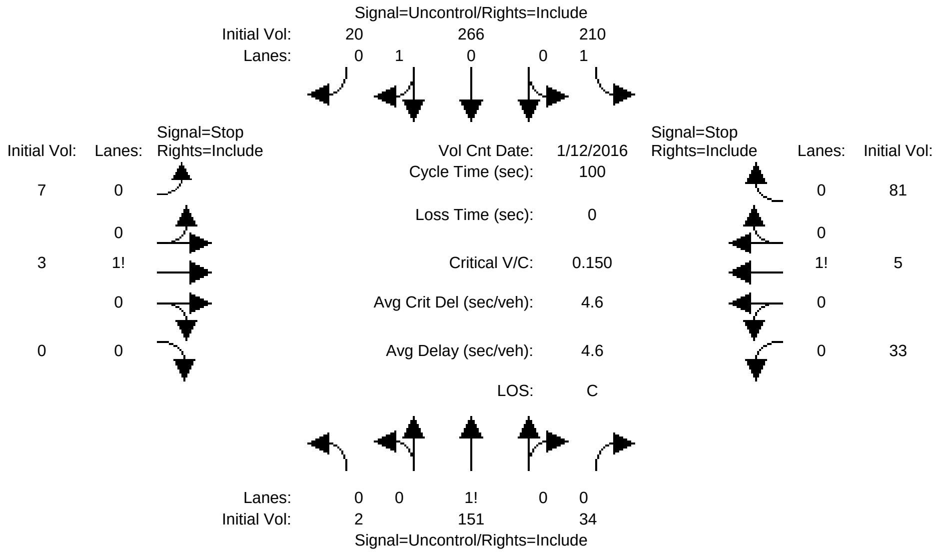

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
Existing Conditions PM

Intersection #1: Foothill Blvd/McClellan Road



```
Street Name:Foothill Blvd-Stevens Canyon Road           McClellan Road
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:       2  151    34   210  266    20     7    3     0    33    5    81
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    2  151    34   210  266    20     7    3     0    33    5    81
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     2  151    34   210  266    20     7    3     0    33    5    81
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    2  151    34   210  266    20     7    3     0    33    5    81
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5 xxxxx   7.1  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0 xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  286 xxxx xxxxx   185 xxxx xxxxx   911  885 xxxxx   870  878   168
Potent Cap.: 1288 xxxx xxxxx  1402 xxxx xxxxx   257  286 xxxxx   274  289   881
Move Cap.:   1288 xxxx xxxxx  1402 xxxx xxxxx   203  243 xxxxx   240  245   881
Volume/Cap:  0.00 xxxx  xxxx  0.15 xxxx  xxxx  0.03 0.01  xxxx  0.14 0.02  0.09
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx   8.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   214 xxxx xxxxx  xxxx  477 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx xxxxx  1.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  22.7 xxxx xxxxx xxxxx 15.0 xxxxx
Shared LOS:     *    *     *     *    *     *     C    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx              22.7              15.0
ApproachLOS:         *                *                C                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
```

```
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    2  151    34   210  266    20     7    3     0    33    5    81
ApproachDel:    xxxxxx           xxxxxx            22.7             15.0
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=10]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=812]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=119]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=812]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    2  151    34   210  266    20     7    3     0    33    5    81
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             683
Minor Approach Volume:           119
Minor Approach Volume Threshold: 416
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
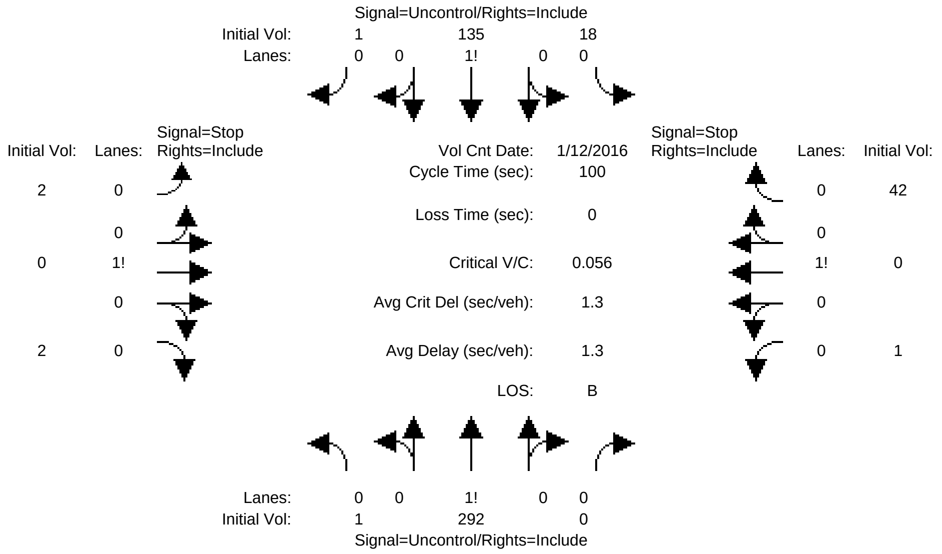

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
Existing Conditions AM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



```
                        Signal=Uncontrol/Rights=Include
               Initial Vol:   1        135        18
                    Lanes:    0    0    1!    0    0

                Signal=Stop                                        Signal=Stop
Initial Vol:  Lanes:  Rights=Include     Vol Cnt Date:  1/12/2016  Rights=Include   Lanes:  Initial Vol:
                                     Cycle Time (sec):     100
     2          0                                                                     0         42
                                      Loss Time (sec):      0
                0                                                                     0
     0          1!                       Critical V/C:    0.056                       1!         0
                0                   Avg Crit Del (sec/veh):  1.3                      0
     2          0                      Avg Delay (sec/veh):  1.3                      0          1
                                                 LOS:        B

                    Lanes:    0    0    1!    0    0
               Initial Vol:   1        292         0
                        Signal=Uncontrol/Rights=Include
```

```
Street Name:       Stevens Canyon Road             St. Andrews Avenue
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:       1  292     0   18  135     1     2    0     2     1    0    42
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    1  292     0   18  135     1     2    0     2     1    0    42
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     1  292     0   18  135     1     2    0     2     1    0    42
Reduct Vol:     0    0     0    0    0     0     0    0     0     0    0     0
FinalVolume:    1  292     0   18  135     1     2    0     2     1    0    42
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2   7.1  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  136 xxxx xxxxx   292 xxxx xxxxx   487  466   136   467  466   292
Potent Cap.: 1461 xxxx xxxxx  1281 xxxx xxxxx   495  497   919   510  497   752
Move Cap.:   1461 xxxx xxxxx  1281 xxxx xxxxx   462  490   919   503  490   752
Volume/Cap:  0.00 xxxx  xxxx  0.01 xxxx  xxxx  0.00 0.00  0.00  0.00 0.00  0.06
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.5 xxxx xxxxx   7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  614 xxxxx  xxxx  743 xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx  0.2 xxxxx
Shrd ConDel:  7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 10.9 xxxxx xxxxx 10.1 xxxxx
Shared LOS:     A    *     *     *    *     *     *    B     *     *    B     *
ApproachDel:     xxxxxx           xxxxxx             10.9             10.1
ApproachLOS:          *                *                B                B
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
```

```
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  292     0    18  135     1     2    0     2     1    0    42
ApproachDel:    xxxxxx           xxxxxx             10.9             10.1
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=494]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=494]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  292     0    18  135     1     2    0     2     1    0    42
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             447
Minor Approach Volume:           43
Minor Approach Volume Threshold: 434
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
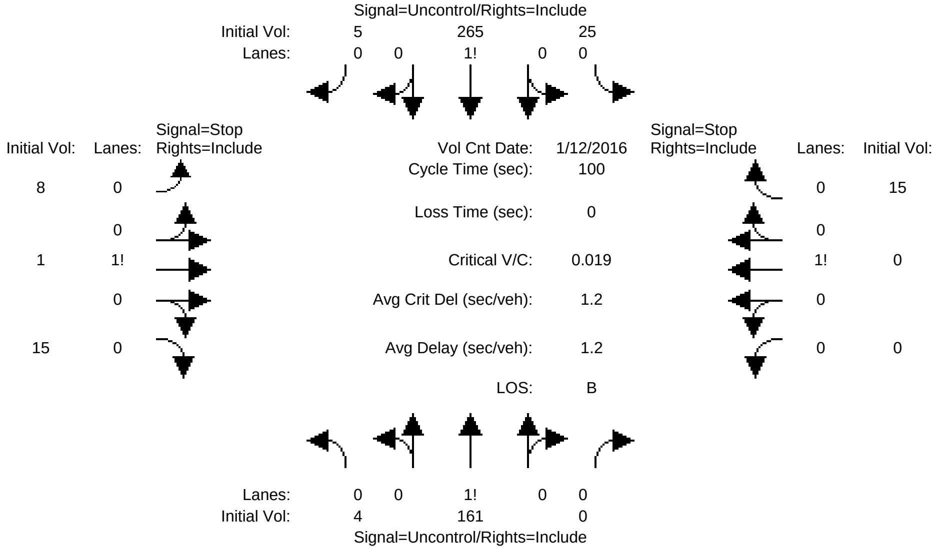

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
Existing Conditions PM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



```
Street Name:       Stevens Canyon Road                St. Andrews Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:       4  161     0    25  265     5     8    1    15     0    0    15
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    4  161     0    25  265     5     8    1    15     0    0    15
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     4  161     0    25  265     5     8    1    15     0    0    15
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    4  161     0    25  265     5     8    1    15     0    0    15
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2 xxxxx  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3 xxxxx  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  270 xxxx xxxxx   161 xxxx xxxxx   494  487   268  xxxx  489   161
Potent Cap.: 1305 xxxx xxxxx  1430 xxxx xxxxx   489  484   776  xxxx  482   889
Move Cap.:   1305 xxxx xxxxx  1430 xxxx xxxxx   473  474   776  xxxx  472   889
Volume/Cap:  0.00 xxxx  xxxx  0.02 xxxx  xxxx  0.02 0.00  0.02  xxxx 0.00  0.02
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx   7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  626 xxxxx  xxxx xxxx   889
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx   0.1
Shrd ConDel:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.0 xxxxx xxxxx xxxx   9.1
Shared LOS:     A    *     *     *    *     *     *    B     *     *    *     A
ApproachDel:    xxxxxx           xxxxxx             11.0              9.1
ApproachLOS:         *                *                B                A
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
```

```
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0
Initial Vol:    4  161     0    25  265     5     8    1    15     0    0    15
ApproachDel:    xxxxxx           xxxxxx             11.0              9.1
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=24]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=499]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=499]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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a traffic signal in the future.  Intersections that exceed this warrant
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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  0  1  0
Initial Vol:    4  161     0    25  265     5     8    1    15     0    0    15
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             460
Minor Approach Volume:           24
Minor Approach Volume Threshold: 427
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
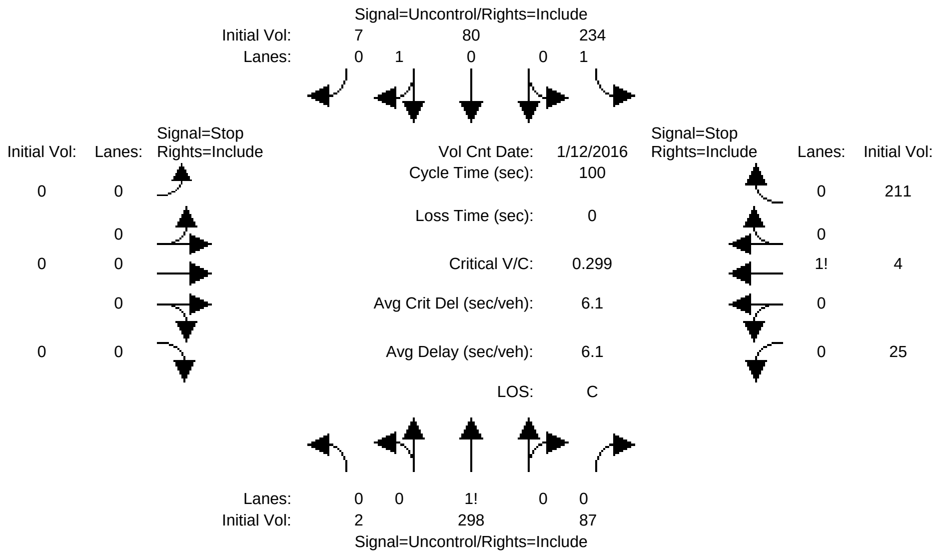

Appendix D – Existing plus Project Conditions Intersections Level of Service Worksheets

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Conditions AM

Intersection #1: Foothill Blvd/McClellan Road



```
Street Name:Foothill Blvd-Stevens Canyon Road          McClellan Road
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:        2  293    84   234   80     4     0    0     0    25    2   211
Growth Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:     2  293    84   234   80     4     0    0     0    25    2   211
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
Project:         0    5     3     0    0     3     0    0     0     0    2     0
Initial Fut:     2  298    87   234   80     7     0    0     0    25    4   211
User Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:      2  298    87   234   80     7     0    0     0    25    4   211
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:     2  298    87   234   80     7     0    0     0    25    4   211
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   87 xxxx xxxxx   385 xxxx xxxxx  xxxx xxxx xxxxx   897  901   342
Potent Cap.: 1522 xxxx xxxxx  1185 xxxx xxxxx  xxxx xxxx xxxxx   313  280   706
Move Cap.:   1522 xxxx xxxxx  1185 xxxx xxxxx  xxxx xxxx xxxxx   265  225   706
Volume/Cap:  0.00 xxxx  xxxx  0.20 xxxx  xxxx  xxxx xxxx  xxxx  0.09 0.02  0.30
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.7 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.4 xxxx xxxxx   8.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  584 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  2.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 15.4 xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:     xxxxxx           xxxxxx           xxxxxx            15.4
ApproachLOS:        *                *                *                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    2  298    87   234   80     7     0    0     0    25    4   211
ApproachDel:    xxxxxx           xxxxxx           xxxxxx              15.4
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=240]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=948]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    2  298    87   234   80     7     0    0     0    25    4   211
------------|---------------||---------------||---------------||---------------|
Major Street Volume:            708
Minor Approach Volume:          240
Minor Approach Volume Threshold: 404
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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```
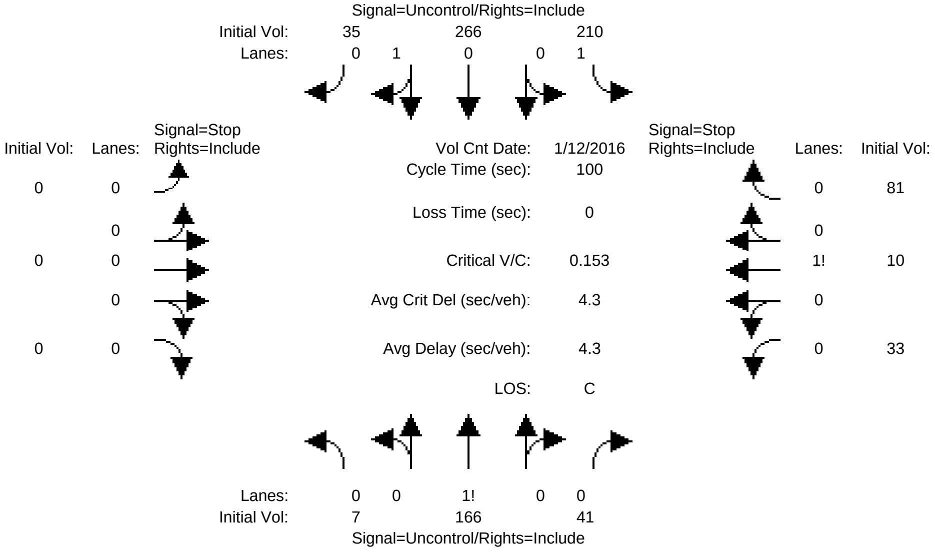

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Conditions PM

Intersection #1: Foothill Blvd/McClellan Road



Vol Cnt Date: 1/12/2016
Cycle Time (sec): 100
Loss Time (sec): 0
Critical V/C: 0.153
Avg Crit Del (sec/veh): 4.3
Avg Delay (sec/veh): 4.3
LOS: C

```
Street Name:Foothill Blvd-Stevens Canyon Road          McClellan Road
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:       6  158    37   210  266    25     0    0     0    33    5    81
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    6  158    37   210  266    25     0    0     0    33    5    81
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        1    8     4     0    0    10     0    0     0     0    5     0
Initial Fut:    7  166    41   210  266    35     0    0     0    33   10    81
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     7  166    41   210  266    35     0    0     0    33   10    81
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  166    41   210  266    35     0    0     0    33   10    81
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  301 xxxx xxxxx   207 xxxx xxxxx  xxxx xxxx xxxxx   904  922   187
Potent Cap.: 1272 xxxx xxxxx  1376 xxxx xxxxx  xxxx xxxx xxxxx   310  272   861
Move Cap.:   1272 xxxx xxxxx  1376 xxxx xxxxx  xxxx xxxx xxxxx   272  230   861
Volume/Cap:  0.01 xxxx  xxxx  0.15 xxxx  xxxx  xxxx xxxx  xxxx  0.12 0.04  0.09
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  479 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  1.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 15.1 xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             15.1
ApproachLOS:         *                *                *                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    7  166    41   210  266    35     0    0     0    33   10    81
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             15.1
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=124]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=849]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    7  166    41   210  266    35     0    0     0    33   10    81
------------|---------------||---------------||---------------||---------------|
Major Street Volume:            725
Minor Approach Volume:          124
Minor Approach Volume Threshold: 396
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
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```
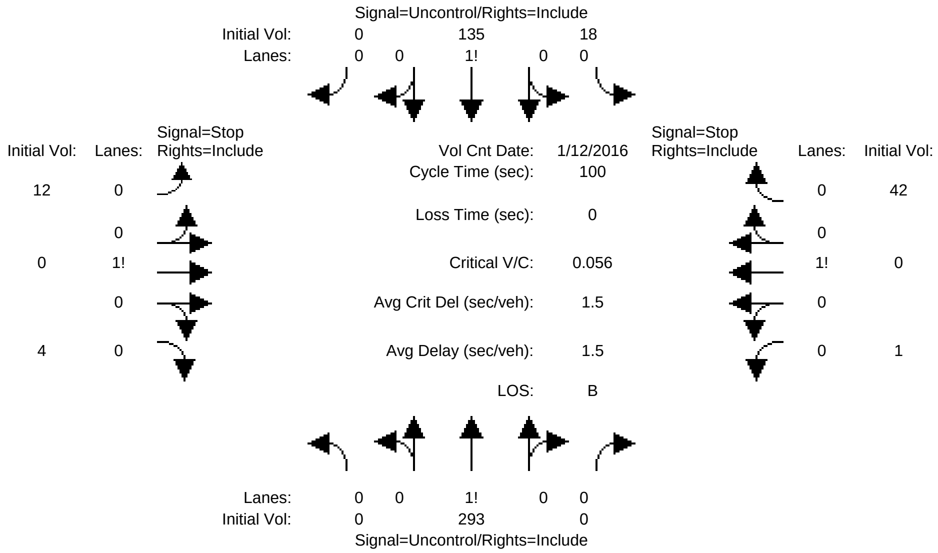

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Conditions AM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



Vol Cnt Date: 1/12/2016
Cycle Time (sec): 100
Loss Time (sec): 0
Critical V/C: 0.056
Avg Crit Del (sec/veh): 1.5
Avg Delay (sec/veh): 1.5
LOS: B

```
Street Name:       Stevens Canyon Road                St. Andrews Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:       0  293     0    18  135     0     4    0     3     1    0    42
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  293     0    18  135     0     4    0     3     1    0    42
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        0    0     0     0    0     0     8    0     1     0    0     0
Initial Fut:    0  293     0    18  135     0    12    0     4     1    0    42
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0  293     0    18  135     0    12    0     4     1    0    42
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  293     0    18  135     0    12    0     4     1    0    42
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2   7.1  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   293 xxxx xxxxx   485  464   135   466  464   293
Potent Cap.: xxxx xxxx xxxxx  1280 xxxx xxxxx   496  498   919   510  498   751
Move Cap.:   xxxx xxxx xxxxx  1280 xxxx xxxxx   463  491   919   503  491   751
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  0.03 0.00  0.00  0.00 0.00  0.06
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   7.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  528 xxxxx  xxxx  742 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.0 xxxx xxxxx xxxxx  0.1 xxxxx xxxxx  0.2 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.9 xxxx xxxxx xxxxx 12.0 xxxxx xxxxx 10.1 xxxxx
Shared LOS:     *    *     *     A    *     *     *    B     *     *    B     *
ApproachDel:    xxxxxx           xxxxxx             12.0              10.1
ApproachLOS:         *                *                B                B
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0  293     0    18  135     0    12    0     4     1    0    42
ApproachDel:    xxxxxx           xxxxxx             12.0             10.1
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=16]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=505]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=43]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=505]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0  293     0    18  135     0    12    0     4     1    0    42
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             446
Minor Approach Volume:           43
Minor Approach Volume Threshold: 435
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```
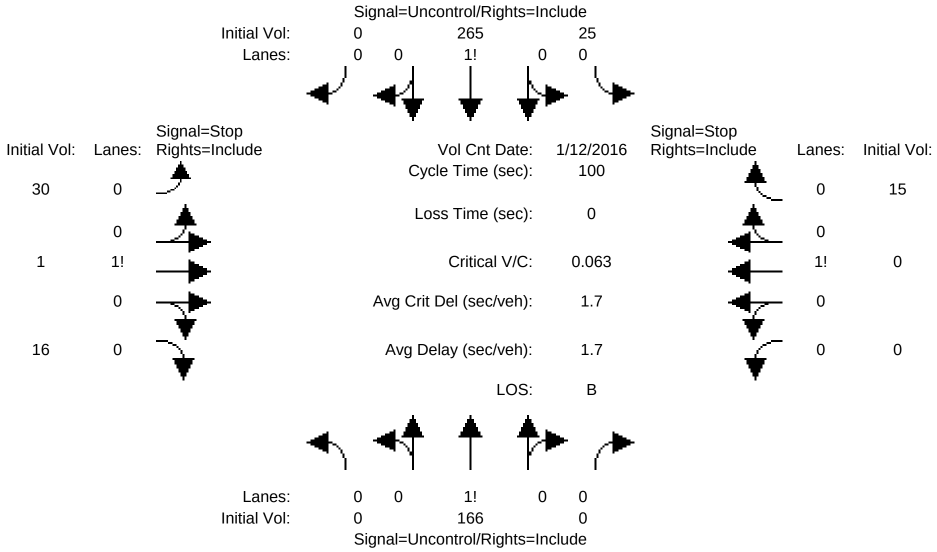

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Conditions PM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



Vol Cnt Date: 1/12/2016
Cycle Time (sec): 100
Loss Time (sec): 0
Critical V/C: 0.063
Avg Crit Del (sec/veh): 1.7
Avg Delay (sec/veh): 1.7
LOS: B

```
Street Name:       Stevens Canyon Road              St. Andrews Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Jan 2016 <<
Base Vol:       0  165     0    25  265     0    18    1    15     0    0    15
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  165     0    25  265     0    18    1    15     0    0    15
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        0    1     0     0    0     0    12    0     1     0    0     0
Initial Fut:    0  166     0    25  265     0    30    1    16     0    0    15
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0  166     0    25  265     0    30    1    16     0    0    15
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  166     0    25  265     0    30    1    16     0    0    15
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2 xxxxx xxxx   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   166 xxxx xxxxx   489  481   265  xxxx xxxx   166
Potent Cap.: xxxx xxxx xxxxx  1424 xxxx xxxxx   493  487   779  xxxx xxxx   884
Move Cap.:   xxxx xxxx xxxxx  1424 xxxx xxxxx   478  479   779  xxxx xxxx   884
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  0.06 0.00  0.02  xxxx xxxx  0.02
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   0.1
Control Del:xxxxx xxxx xxxxx   7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.1
LOS by Move:    *    *     *     A    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  550 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.1 xxxx xxxxx xxxxx  0.3 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.6 xxxx xxxxx xxxxx 12.2 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     A    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             12.2             9.1
ApproachLOS:         *                *                B                A
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

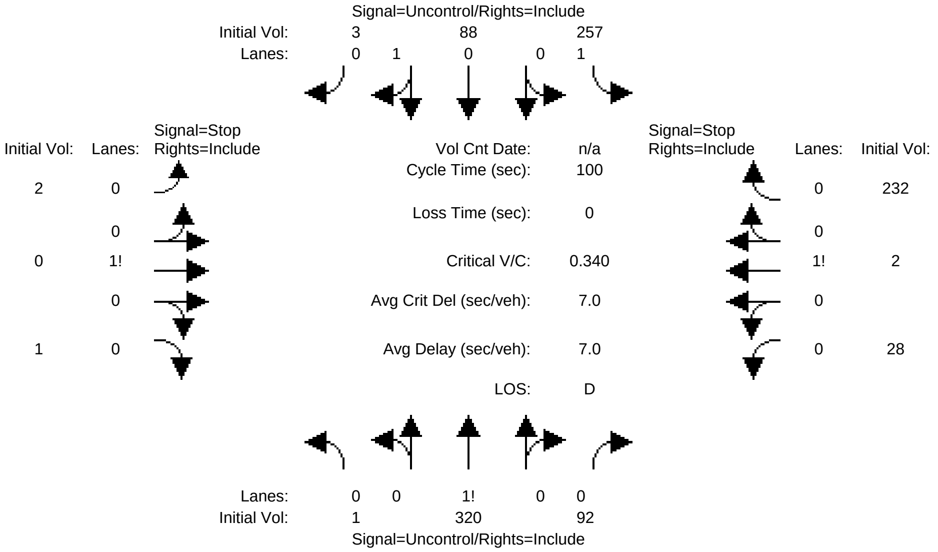
```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:    0  166     0    25  265     0    30    1    16     0    0    15
ApproachDel:    xxxxxx           xxxxxx             12.2              9.1
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=518]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=518]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:    0  166     0    25  265     0    30    1    16     0    0    15
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             456
Minor Approach Volume:           47
Minor Approach Volume Threshold: 429
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Appendix E – Cumulative Conditions Intersections Level of Service Worksheets

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Conditions AM

Intersection #1: Foothill Blvd/McClellan Road



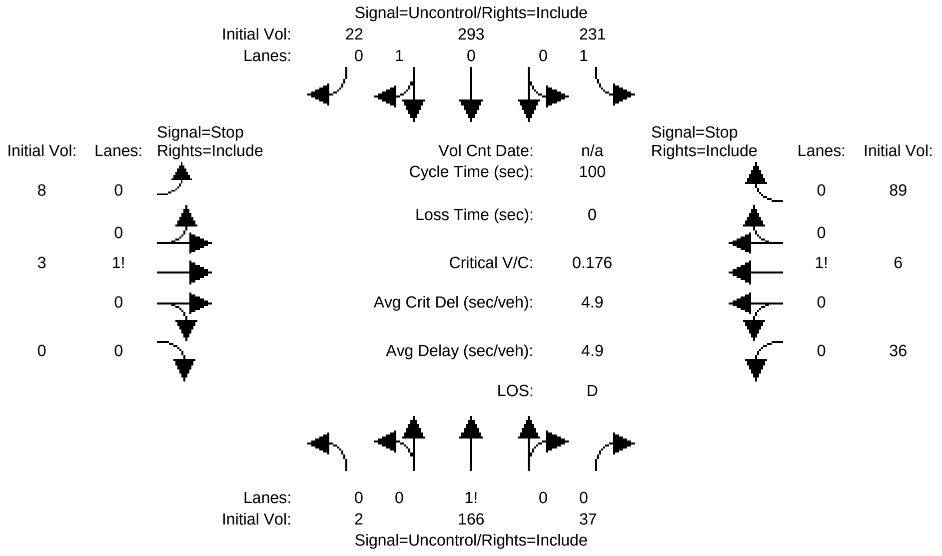
```
Street Name:Foothill Blvd-Stevens Canyon Road           McClellan Road
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:        1  291    84   234   80     3     2    0     1    25    2   211
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:     1  320    92   257   88     3     2    0     1    28    2   232
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
0:               0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:     1  320    92   257   88     3     2    0     1    28    2   232
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:      1  320    92   257   88     3     2    0     1    28    2   232
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:     1  320    92   257   88     3     2    0     1    28    2   232
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2   7.1  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   91 xxxx xxxxx   413 xxxx xxxxx  1090 1019    90   974  975   366
Potent Cap.: 1516 xxxx xxxxx  1157 xxxx xxxxx   194  239   974   233  254   683
Move Cap.:   1516 xxxx xxxxx  1157 xxxx xxxxx   105  186   974   193  197   683
Volume/Cap:  0.00 xxxx  xxxx  0.22 xxxx  xxxx  0.02 0.00  0.00  0.14 0.01  0.34
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.9 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.4 xxxx xxxxx   9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  150 xxxxx  xxxx  531 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx  2.7 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 29.5 xxxxx xxxxx 18.2 xxxxx
Shared LOS:     *    *     *     *    *     *     *    D     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx             29.5             18.2
ApproachLOS:         *                *                D                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  320    92   257   88     3     2    0     1    28    2   232
ApproachDel:    xxxxxx           xxxxxx             29.5             18.2
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1027]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=262]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1027]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  320    92   257   88     3     2    0     1    28    2   232
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             762
Minor Approach Volume:           262
Minor Approach Volume Threshold: 378
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Conditions PM

Intersection #1: Foothill Blvd/McClellan Road

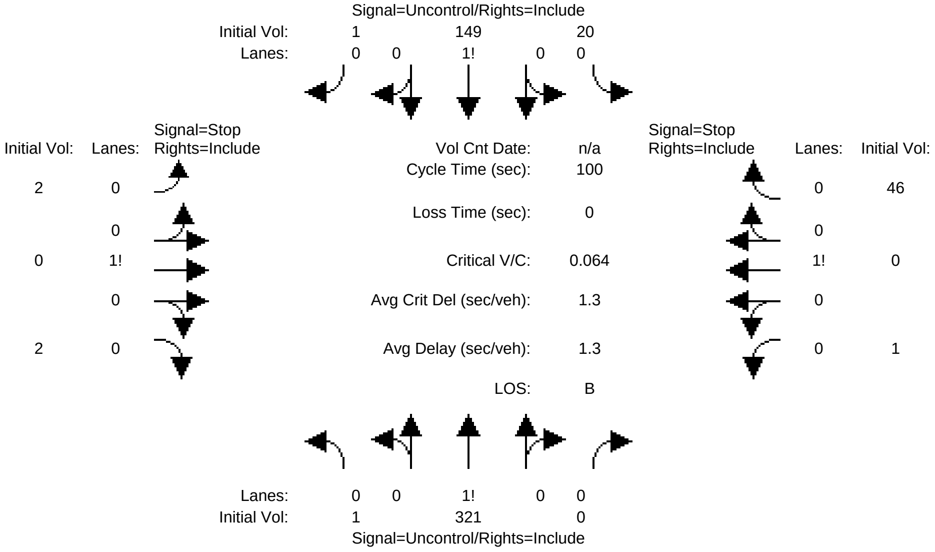


```
Street Name:Foothill Blvd-Stevens Canyon Road          McClellan Road
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:        2  151    34   210  266    20     7    3     0    33    5    81
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:     2  166    37   231  293    22     8    3     0    36    6    89
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
 :               0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:     2  166    37   231  293    22     8    3     0    36    6    89
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:      2  166    37   231  293    22     8    3     0    36    6    89
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:     2  166    37   231  293    22     8    3     0    36    6    89
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5 xxxxx   7.1  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0 xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  315 xxxx xxxxx   204 xxxx xxxxx  1002  974 xxxxx   956  966   185
Potent Cap.: 1257 xxxx xxxxx  1380 xxxx xxxxx   223  254 xxxxx   240  257   863
Move Cap.:   1257 xxxx xxxxx  1380 xxxx xxxxx   171  211 xxxxx   206  213   863
Volume/Cap:  0.00 xxxx  xxxx  0.17 xxxx  xxxx  0.05 0.02  xxxx  0.18 0.03  0.10
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.6 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.9 xxxx xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   181 xxxx xxxxx  xxxx  429 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx xxxxx  1.3 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  26.2 xxxx xxxxx xxxxx 17.0 xxxxx
Shared LOS:     *    *     *     *    *     *     D    *     *     *    C     *
ApproachDel:     xxxxxx           xxxxxx              26.2             17.0
ApproachLOS:          *                *                D                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign         Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    2  166    37   231  293    22     8    3     0    36    6    89
ApproachDel:    xxxxxx           xxxxxx             26.2              17.0
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=11]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=893]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=131]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=893]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign         Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  1  0  0  0    0  0  1! 0  0
Initial Vol:    2  166    37   231  293    22     8    3     0    36    6    89
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             751
Minor Approach Volume:           131
Minor Approach Volume Threshold: 383
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Conditions AM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



```
Street Name:       Stevens Canyon Road                St. Andrews Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1  292     0    18  135     1     2    0     2     1    0    42
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    1  321     0    20  149     1     2    0     2     1    0    46
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
 :              0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    1  321     0    20  149     1     2    0     2     1    0    46
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     1  321     0    20  149     1     2    0     2     1    0    46
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    1  321     0    20  149     1     2    0     2     1    0    46
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2   7.1  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  150 xxxx xxxxx   321 xxxx xxxxx   535  512   149   513  513   321
Potent Cap.: 1444 xxxx xxxxx  1250 xxxx xxxxx   459  468   903   475  468   724
Move Cap.:   1444 xxxx xxxxx  1250 xxxx xxxxx   424  460   903   468  460   724
Volume/Cap:  0.00 xxxx  xxxx  0.02 xxxx  xxxx  0.01 0.00  0.00  0.00 0.00  0.06
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.5 xxxx xxxxx   7.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  577 xxxxx  xxxx  715 xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.0 xxxxx xxxxx  0.2 xxxxx
Shrd ConDel:  7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.3 xxxxx xxxxx 10.4 xxxxx
Shared LOS:     A    *     *     *    *     *     *    B     *     *    B     *
ApproachDel:    xxxxxx           xxxxxx             11.3             10.4
ApproachLOS:         *                *                B                B
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************

Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************

Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  321     0    20  149     1     2    0     2     1    0    46
ApproachDel:    xxxxxx           xxxxxx             11.3             10.4
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=543]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=543]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    1  321     0    20  149     1     2    0     2     1    0    46
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             492
Minor Approach Volume:           47
Minor Approach Volume Threshold: 409
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```
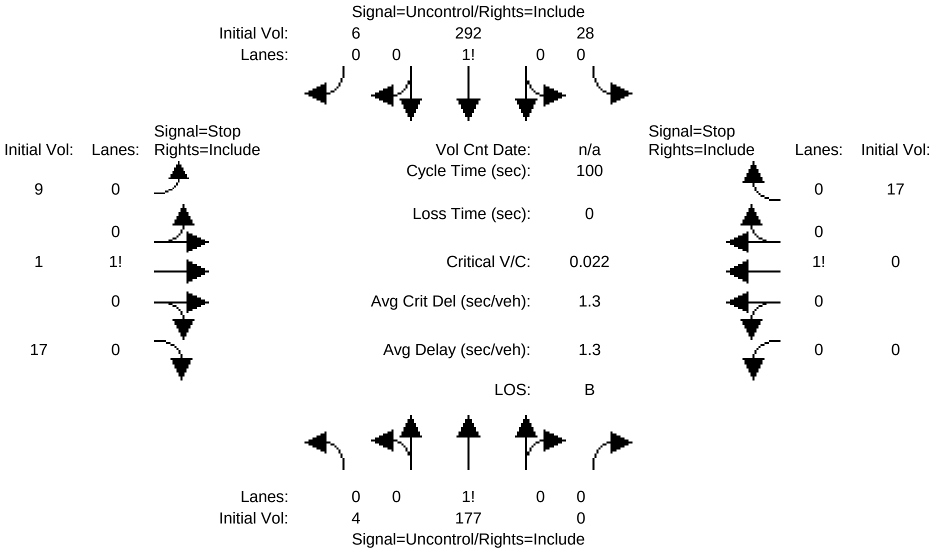

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Conditions PM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



```
Street Name:       Stevens Canyon Road              St. Andrews Avenue
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4  161     0     25  265     5     8    1    15     0    0    15
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    4  177     0     28  292     6     9    1    17     0    0    17
Added Vol:      0    0     0      0    0     0     0    0     0     0    0     0
 :              0    0     0      0    0     0     0    0     0     0    0     0
Initial Fut:    4  177     0     28  292     6     9    1    17     0    0    17
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     4  177     0     28  292     6     9    1    17     0    0    17
Reduct Vol:     0    0     0      0    0     0     0    0     0     0    0     0
FinalVolume:    4  177     0     28  292     6     9    1    17     0    0    17
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2 xxxxx xxxx   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  297 xxxx xxxxx   177 xxxx xxxxx   543  535   294  xxxx xxxx   177
Potent Cap.: 1276 xxxx xxxxx  1411 xxxx xxxxx   453  454   750  xxxx xxxx   871
Move Cap.:   1276 xxxx xxxxx  1411 xxxx xxxxx   437  444   750  xxxx xxxx   871
Volume/Cap:  0.00 xxxx  xxxx  0.02 xxxx  xxxx  0.02 0.00  0.02  xxxx xxxx  0.02
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   0.1
Control Del:  7.8 xxxx xxxxx   7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.2
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  592 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.4 xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:     xxxxxx           xxxxxx             11.4              9.2
ApproachLOS:          *                *                B                A
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:    4  177     0    28  292     6     9    1    17     0    0    17
ApproachDel:    xxxxxx           xxxxxx             11.4              9.2
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=549]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=549]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:    4  177     0    28  292     6     9    1    17     0    0    17
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             506
Minor Approach Volume:           26
Minor Approach Volume Threshold: 401
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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```
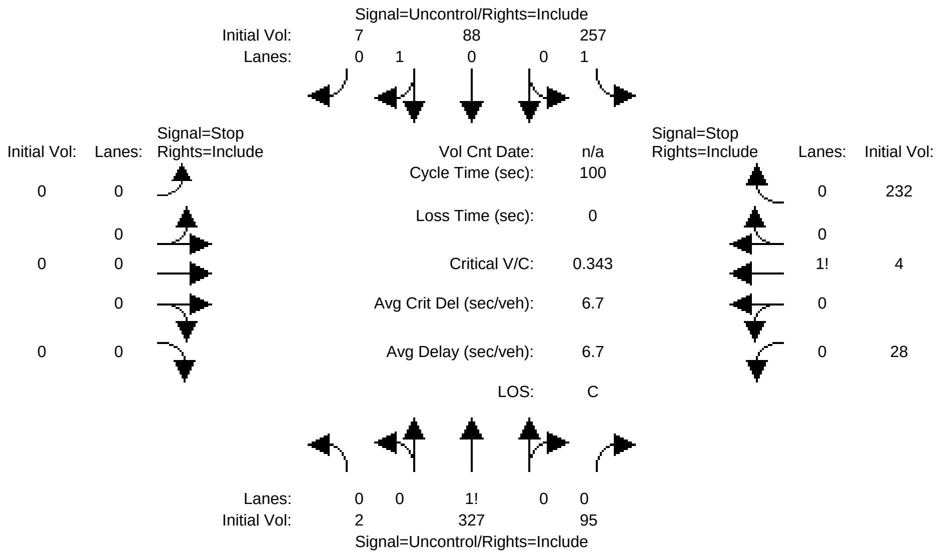

Appendix F – Cumulative plus Project Conditions Intersections Level of Service Worksheets

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Plus Project Condiions AM

Intersection #1: Foothill Blvd/McClellan Road



Signal=Uncontrol/Rights=Include
Initial Vol: 7 88 257
Lanes: 0 1 0 0 1

Initial Vol: Lanes: Signal=Stop Rights=Include
0 0
0
0 0
0
0 0

Vol Cnt Date: n/a
Cycle Time (sec): 100
Loss Time (sec): 0
Critical V/C: 0.343
Avg Crit Del (sec/veh): 6.7
Avg Delay (sec/veh): 6.7
LOS: C

Signal=Stop Rights=Include Lanes: Initial Vol:
0 232
0
1! 4
0
0 28

Lanes: 0 0 1! 0 0
Initial Vol: 2 327 95
Signal=Uncontrol/Rights=Include

```
Street Name:Foothill Blvd-Stevens Canyon Road           McClellan Road
Approach:      North Bound       South Bound        East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       2  293    84   234   80     4     0    0     0    25    2   211
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    2  322    92   257   88     4     0    0     0    28    2   232
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        0    5     3     0    0     3     0    0     0     0    2     0
Initial Fut:    2  327    95   257   88     7     0    0     0    28    4   232
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     2  327    95   257   88     7     0    0     0    28    4   232
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    2  327    95   257   88     7     0    0     0    28    4   232
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   95 xxxx xxxxx   423 xxxx xxxxx  xxxx xxxx xxxxx   986  990   375
Potent Cap.: 1511 xxxx xxxxx  1147 xxxx xxxxx  xxxx xxxx xxxxx   277  249   676
Move Cap.:   1511 xxxx xxxxx  1147 xxxx xxxxx  xxxx xxxx xxxxx   229  192   676
Volume/Cap:  0.00 xxxx  xxxx  0.22 xxxx  xxxx  xxxx xxxx  xxxx  0.12 0.02  0.34
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.9 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.4 xxxx xxxxx   9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  544 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  2.6 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 17.7 xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx            17.7
ApproachLOS:       *                *                *               C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled     Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    2  327    95   257   88     7     0    0     0    28    4   232
ApproachDel:    xxxxxx           xxxxxx           xxxxxx            17.7
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=264]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1042]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
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signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled     Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    2  327    95   257   88     7     0    0     0    28    4   232
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             778
Minor Approach Volume:           264
Minor Approach Volume Threshold: 371
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```
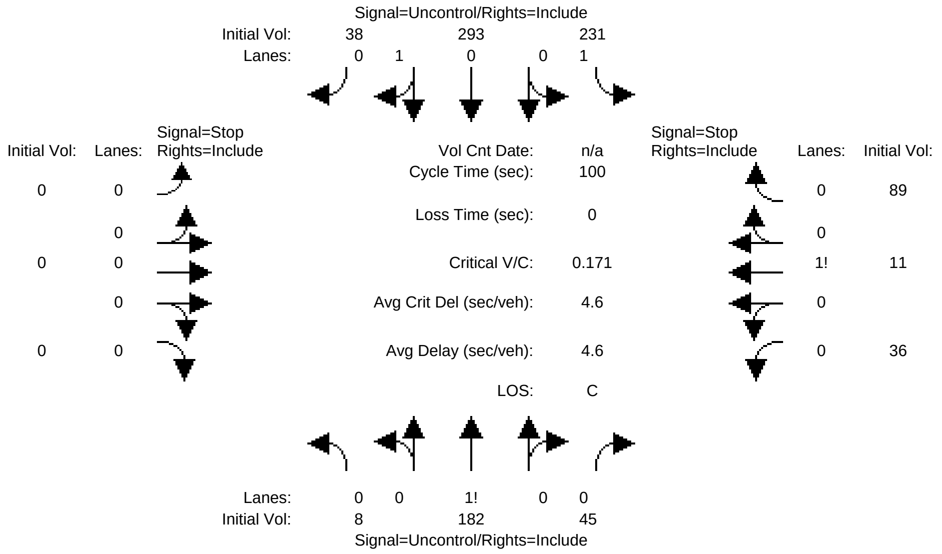

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Plus Project Conditions PM

Intersection #1: Foothill Blvd/McClellan Road



```
Street Name:Foothill Blvd-Stevens Canyon Road          McClellan Road
Approach:     North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       6  158    37   210  266    25     0    0     0    33    5    81
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    7  174    41   231  293    28     0    0     0    36    6    89
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        1    8     4     0    0    10     0    0     0     0    5     0
Initial Fut:    8  182    45   231  293    38     0    0     0    36   11    89
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     8  182    45   231  293    38     0    0     0    36   11    89
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    8  182    45   231  293    38     0    0     0    36   11    89
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  330 xxxx xxxxx   227 xxxx xxxxx  xxxx xxxx xxxxx   993 1011   204
Potent Cap.: 1241 xxxx xxxxx  1354 xxxx xxxxx  xxxx xxxx xxxxx   275  241   842
Move Cap.:   1241 xxxx xxxxx  1354 xxxx xxxxx  xxxx xxxx xxxxx   237  199   842
Volume/Cap:  0.01 xxxx  xxxx  0.17 xxxx  xxxx  xxxx xxxx  xxxx  0.15 0.05  0.11
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx   0.6 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.9 xxxx xxxxx   8.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  436 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  1.3 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 16.9 xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             16.9
ApproachLOS:         *                *                *                C
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    8  182    45   231  293    38     0    0     0    36  11     89
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             16.9
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=136]
   SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=931]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Foothill Blvd/McClellan Road
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    1  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    8  182    45   231  293    38     0    0     0    36  11     89
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             795
Minor Approach Volume:           136
Minor Approach Volume Threshold: 364
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

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jurisdiction.  Consideration of the other signal warrants, which is beyond
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```
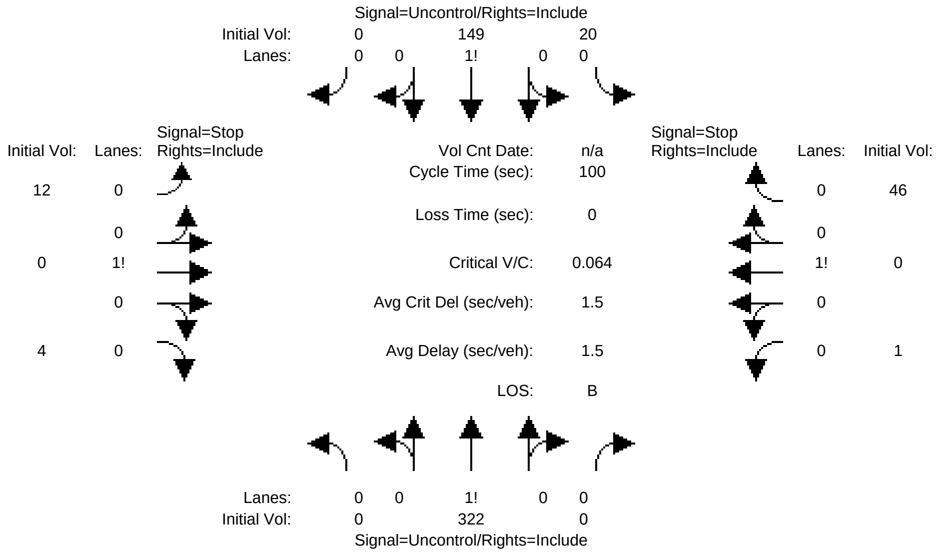

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Plus Project Condiions AM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



Vol Cnt Date: n/a
Cycle Time (sec): 100
Loss Time (sec): 0
Critical V/C: 0.064
Avg Crit Del (sec/veh): 1.5
Avg Delay (sec/veh): 1.5
LOS: B

```
Street Name:       Stevens Canyon Road                St. Andrews Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  293     0    18  135     0     4    0     3     1    0    42
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    0  322     0    20  149     0     4    0     3     1    0    46
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        0    0     0     0    0     0     8    0     1     0    0     0
Initial Fut:    0  322     0    20  149     0    12    0     4     1    0    46
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0  322     0    20  149     0    12    0     4     1    0    46
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  322     0    20  149     0    12    0     4     1    0    46
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2   7.1  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   322 xxxx xxxxx   534  510   149   513  510   322
Potent Cap.: xxxx xxxx xxxxx  1249 xxxx xxxxx   460  469   904   475  469   723
Move Cap.:   xxxx xxxx xxxxx  1249 xxxx xxxxx   426  462   904   467  462   723
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  0.03 0.00  0.00  0.00 0.00  0.06
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   7.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  493 xxxxx  xxxx  714 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.0 xxxx xxxxx xxxxx  0.1 xxxxx xxxxx  0.2 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.9 xxxx xxxxx xxxxx 12.6 xxxxx xxxxx 10.4 xxxxx
Shared LOS:     *    *     *     A    *     *     *    B     *     *    B     *
ApproachDel:    xxxxxx           xxxxxx             12.6             10.4
ApproachLOS:         *                *                B                B
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0  322     0    20  149     0    12    0     4     1    0    46
ApproachDel:    xxxxxx           xxxxxx             12.6             10.4
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=555]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=555]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0
Initial Vol:    0  322     0    20  149     0    12    0     4     1    0    46
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             491
Minor Approach Volume:           47
Minor Approach Volume Threshold: 409
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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```
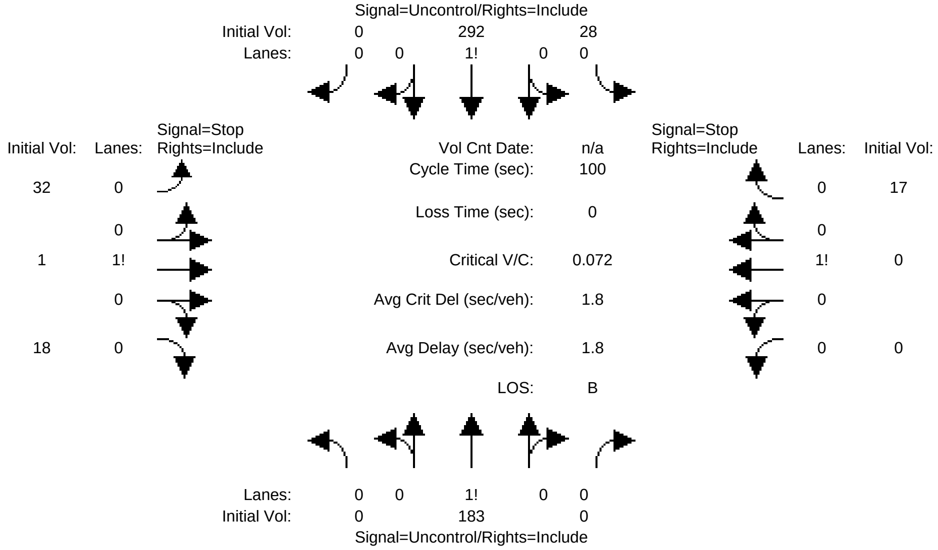

10625 South Foothill Boulevard Traffic Impact Study Report
City of Cupertino, CA

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Plus Project Conditions PM

Intersection #2: Stevens Canyon Road/St. Andrews Ave



```
Street Name:       Stevens Canyon Road                St. Andrews Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  165     0    25  265     0    18    1    15     0    0    15
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    0  182     0    28  292     0    20    1    17     0    0    17
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Project:        0    1     0     0    0     0    12    0     1     0    0     0
Initial Fut:    0  183     0    28  292     0    32    1    18     0    0    17
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0  183     0    28  292     0    32    1    18     0    0    17
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  183     0    28  292     0    32    1    18     0    0    17
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2 xxxxx xxxx   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   183 xxxx xxxxx   537  529   292  xxxx xxxx   183
Potent Cap.: xxxx xxxx xxxxx  1405 xxxx xxxxx   458  458   752  xxxx xxxx   865
Move Cap.:   xxxx xxxx xxxxx  1405 xxxx xxxxx   442  449   752  xxxx xxxx   865
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  0.07 0.00  0.02  xxxx xxxx  0.02
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   0.1
Control Del:xxxxx xxxx xxxxx   7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.2
LOS by Move:    *    *     *     A    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  516 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.1 xxxx xxxxx xxxxx  0.3 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.6 xxxx xxxxx xxxxx 12.7 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     A    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             12.7              9.2
ApproachLOS:         *                *                B                A
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:    0  183     0    28  292     0    32    1    18     0    0    17
ApproachDel:    xxxxxx             xxxxxx           12.7              9.2
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=50]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=568]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=568]
   FAIL - Total volume less than 650 for intersection
          with less than four approaches.
--------------------------------------------------------------------------------
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"indicator" of the likelihood of an unsignalized intersection warranting
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signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #2 Stevens Canyon Road/St. Andrews Ave
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:    0  183     0    28  292     0    32    1    18     0    0    17
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             502
Minor Approach Volume:           50
Minor Approach Volume Threshold: 403
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
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signal warrant (such as the 4-hour or 8-hour warrants).

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the scope of this software, may yield different results.
```

TJKM VISION THAT MOVES YOUR COMMUNITY

TECHNICAL MEMORANDUM

Date: June 17, 2019

To: Terence J. Szewczyk. P.E.
TS/Civil Engineering, Inc

From: Chris D. Kinzel, P.E.
Vice President

Subject: ***Sight Distance on Stevens Canyon Road***

The City of Cupertino has requested that the stopping sight distance be checked along Stevens Canyon Road near the proposed residential development in the vicinity of intersections with both McClellan Road and St. Andrews Avenue. The proposed mixed use development is to be located on the west side Stevens Canyon Road with driveways opposite the two existing T-intersections at McClellan Road and at St. Andrews Avenue. The City specifically requested a review of sight distance for traffic exiting the southern driveway (opposite St. Andrews Avenue). At this location exiting drivers looking to the left (north) will encounter potential sight restrictions related to a new retail building located close to the west property line and a curve in the roadway at McClellan Road. North of that point Stevens Canyon Road changes its name to Foothill Boulevard.

The speed limit along this section of Stevens Canyon Road is 30 mph, with a 30 mph speed limit sign and a 30 mph pavement marking for southbound traffic located directly along the property frontage. The stopping sight distance for 30 mph is 200 feet; for 35 mph it is 250 feet and for 40 mph it is 300 feet. Along the property frontage, Stevens Canyon Road will have a curb to curb width of 40 feet with no parking allowed on the property frontage. A painted bicycle lane with an estimated width of six feet will be located along the property frontage.

I have attached a site plan with line of sight estimations shown. In the illustration, the driver's vehicle is located at the curb line with the driver's eye about seven feet back of curb. It is assumed the driver will ease out into the roadway, avoiding pedestrians and bicyclists that might be in the vicinity. In this example, the driver can see an oncoming vehicle 369 feet to the north, equating to a stopping distance of greater than 40 mph. Even if the motorist only first notices a southbound vehicle at the middle of the intersection with McClelland Road, that would provide a sight distance of about 275 feet, which is still over 35 mph.

TJKM concludes that the sight distance from the southern driveway is adequate for local conditions. I will be happy to respond to questions on this.

REGISTERED PROFESSIONAL ENGINEER
CHRIS D. KINZEL
Chris D. Kinzel
No. 15347
Exp. 3-31-'19
CIVIL
STATE OF CALIFORNIA

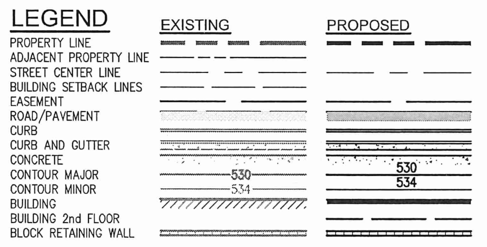
BASIS OF BEARINGS: (FROM TOPOGRAPHIC MAP)

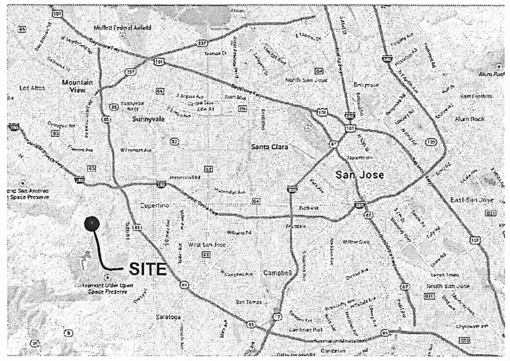
THE BEARING, NORTH 13°58'00" EAST, BETWEEN THE TWO FOUND CITY MONUMENTS ON THE MONUMENT LINE OF STEVENS CANYON ROAD AS SHOWN ON THAT CERTAIN RECORD OF SURVEY FILED FOR RECORD ON OCTOBER 19, 1964 IN BOOK 186 OF MAPS AT PAGE 44 IN THE OFFICE OF THE RECORDER, SANTA CLARA COUNTY, WAS TAKEN AS THE BASIS OF ALL BEARINGS SHOWN ON THIS MAP.

BENCHMARK: (FROM TOPOGRAPHIC MAP)

DATUM: NAVD88
GEOID: 2012A
DERIVED FROM RTN GPS.

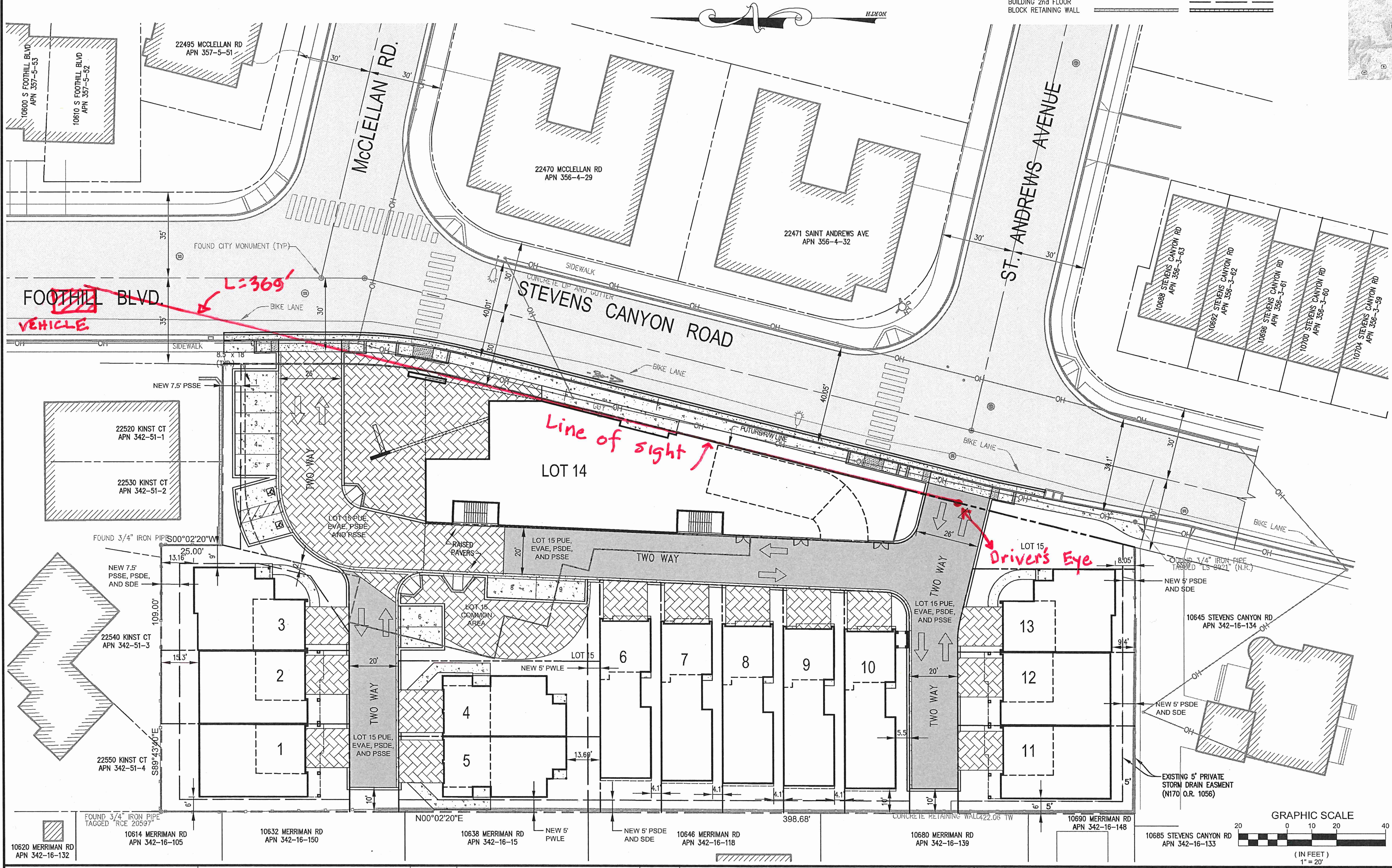
LEGEND





VICINITY MAP

N.T.S.



GRAPHIC SCALE

(IN FEET)
1" = 20'

NOTES:

1. OWNER — SCR ENTERPRISES, LLC
15700 WINCHESTER BLVD
LOS GATOS, CA 95030

2. CIVIL ENGINEER — TERENCE J. SZEWCZYK, C35527
TS/CIVIL ENGINEERING, INC.
1776 TECHNOLOGY DRIVE
SAN JOSE, CA 95110
(408) 452-9300 (OFFICE)
(408) 837-7550 (FAX)

3. THIS MAP REPRESENTS A SUBDIVISION WHICH CONTAINS APPROX. 67,343 SQ.FT. OR 1.546 ACRES.
GROSS AREA 67,343 SQ. FT. OR 1.546 ACRES
NET AREA 60,025 SQ. FT. OR 1.378 ACRES

4. EXISTING ZONING: P (CG)
EXISTIING GENERAL PLAN: GENERAL COMMERICAL

5. PROPOSED ZONING: P
PROPOSED GENERAL PLAN: MIXED-USE PLANNED DEVELOPMENT

6. EXISITING USE: COMMERICAL SHOPPING AND RESIDENTIAL HOUSING

7. PROPOSED USE: 13 TOWNHOUSE UNITS
5 APARTMENTS
5,000 SF COMMERCIAL
WITH PARKING BASEMENT

8. APN: 342-16-087

9. BUILDING AREA (SQ. FT.)
   A. FIRST FLOOR: SEE ARCHITECTURAL PLANS
   B. SECOND FLOOR: SEE ARCHITECTURAL PLANS

10. FLOOR AREA RATIO (FAR): SEE ARCHITECTURAL PLANS

11. WATER SUPPLY BY THE SAN JOSE WATER COMPANY

12. STORM WATER TO EXISTING CITY OF CUPERTINO FACILITIES

13. SANITARY SEWER BY CUPERTINO SANITARY DISTRICT.

14. POWER AND GAS BY PACIFIC GAS AND ELECTRIC

15. TELEPHONE BY AT&T

16. PARKING:
   A. REQUIRED (STALLS):
   B. PROVIDED (TOTAL STALLS): 37
      I. UNI-SIZE: 35
      II. HANDICAPPED: 5

17. HOURS OF OPERATIONS: TBD

18. PAVING AREA (SQ. FT. & % OF NET LOT AREA)

A.	EXISITING:	30,886 SF	51.2%
B.	PROPOSED:	22,021 SF	36.5%

19. LANDSCAPE AREA (SQ. FT. & % OF NET LOT AREA):

PROPOSED:	13,544 SF	22.4%

20. RECREATION AREA (SQ. FT. & % OF NET LOT AREA):

A.	PRIVATE:	3,900 SF	6.5%
B.	COMMON:	5,000 SF	8.3%

SHEET INDEX:

DESIGNED UNDER THE SUPERVISON OF:

Terence Szewczyk

3-11-19

TERENCE J. SZEWCZYK R.C.E. 35527
EXPIRATION DATE: 09/30/19

No. 35527
EXP. 9-30-19

BY	REVISIONS	DATE
6		
5		
4		
3		
2		
1		

TS CIVIL ENGINEERING, INC.
1776 TECHNOLOGY DRIVE
SAN JOSE, CA. 95110
CIVIL ENGINEERING
PH: 408.452.9300
FAX: 408.837.7550

CANYON CROSSINGS

TENTATIVE MAP

LAND OF SCR ENTERPRISES, LLC
10625 S. FOOTHILL BLVD
APN: 342-16-087
CUPERTINO SANTA CLARA COUNTY CALIFORNIA

DATE:	3-11-19
SCALE:	1"=20'
DRAWN BY:	DKH
SURVEYED BY:	JMS
PROJ ENGR:	TJS
CHECK BY:	TJS

SHEET NO.
C1
OF 16 SHEETS
JOB NO.
14-214

03/11/2019 4:34pm – N:\2014 JOBS\14-214\dwg\14-214 C1 TENTATIVE MAP.dwg – C1

TJKM VISION THAT MOVES YOUR COMMUNITY

TECHNICAL MEMORANDUM

Date: June 17, 2019

To: Terence J. Szewczyk. P.E.
TS/Civil Engineering, Inc

From: Chris D. Kinzel, P.E.
Vice President

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BASIS OF BEARINGS: (FROM TOPOGRAPHIC MAP)

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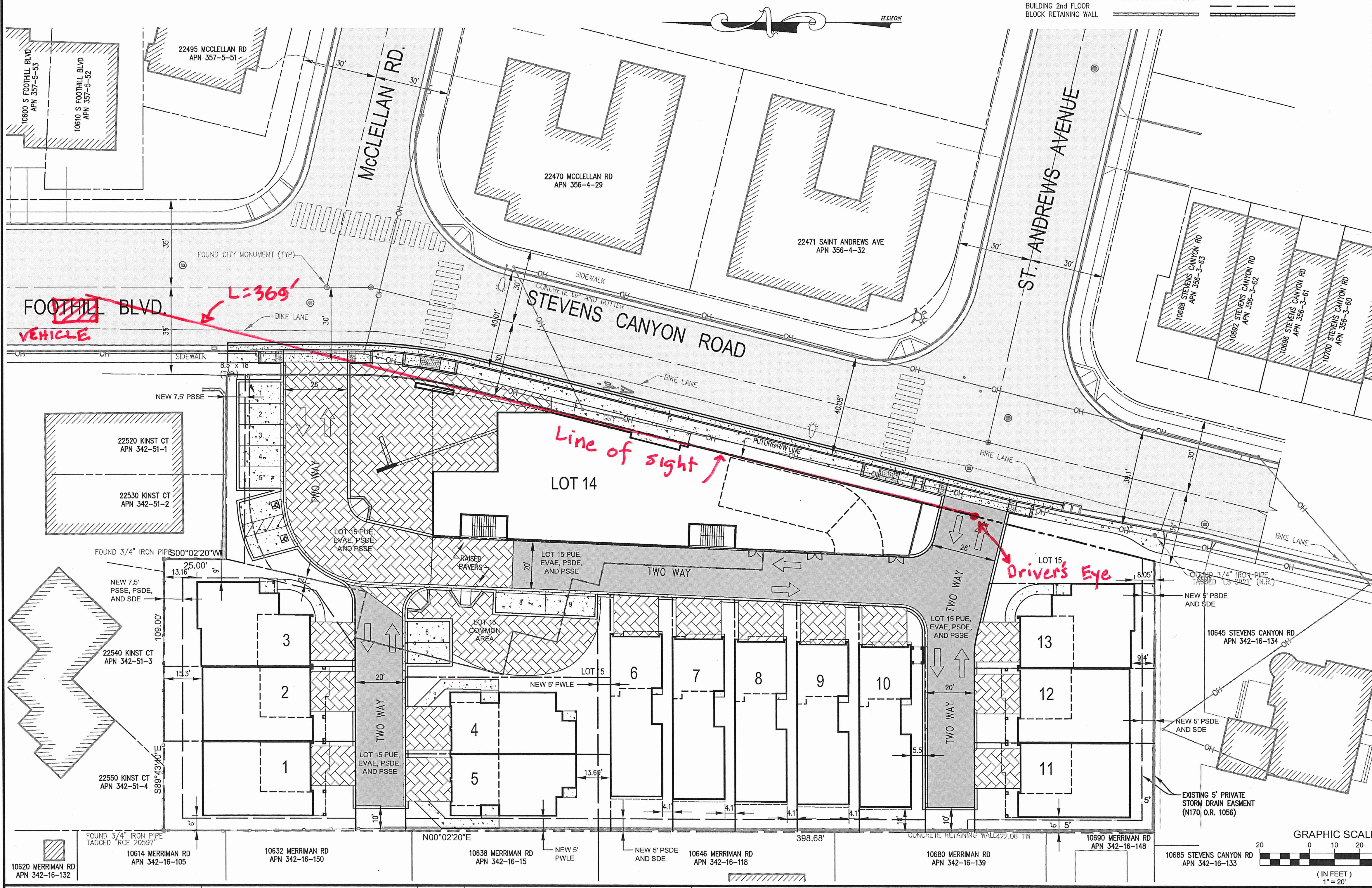
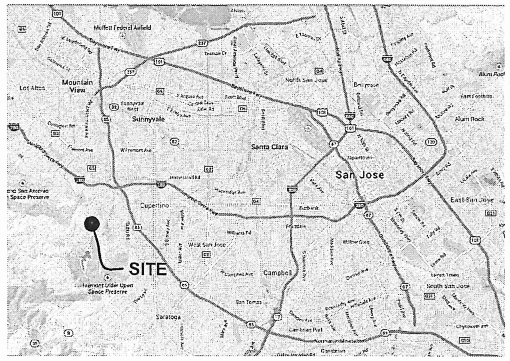
BENCHMARK: (FROM TOPOGRAPHIC MAP)

DATUM: NAVD88
GEOID: 2012A
DERIVED FROM RTN GPS.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
ADJACENT PROPERTY LINE		
STREET CENTER LINE		
BUILDING SETBACK LINES		
EASEMENT		
ROAD/PAVEMENT		
CURB		
CURB AND GUTTER		
CONCRETE		
CONTOUR MAJOR	530	530
CONTOUR MINOR	534	534
BUILDING		
BUILDING 2nd FLOOR		
BLOCK RETAINING WALL		





VICINITY MAP

N.T.S.

NOTES:

1. OWNER — SCR ENTERPRISES, LLC
15700 WINCHESTER BLVD
LOS GATOS, CA 95030

2. CIVIL ENGINEER — TERENCE J. SZEWCZYK, C35527
TS/CIVIL ENGINEERING, INC.
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3. THIS MAP REPRESENTS A SUBDIVISION WHICH CONTAINS APPROX. 67,343 SQ.FT. OR 1.546 ACRES.
GROSS AREA — 67,343 SQ. FT. OR 1.546 ACRES
NET AREA — 60,025 SQ. FT. OR 1.378 ACRES

4. EXISTING ZONING: — P (CG)
EXISTIING GENERAL PLAN: — GENERAL COMMERICAL

5. PROPOSED ZONING: — P
PROPOSED GENERAL PLAN: — MIXED-USE PLANNED DEVELOPMENT

6. EXISITING USE: — COMMERICAL SHOPPING AND RESIDENTIAL HOUSING

7. PROPOSED USE: — 13 TOWNHOUSE UNITS
5 APARTMENTS
5,000 SF COMMERCIAL
WITH PARKING BASEMENT

8. APN: — 342-16-087

9. BUILDING AREA (SQ. FT.)
   - A. FIRST FLOOR: — SEE ARCHITECTURAL PLANS
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15. TELEPHONE BY AT&T

16. PARKING:
   - A. REQUIRED (STALLS):
   - B. PROVIDED (TOTAL STALLS): 37
      - I. UNI-SIZE: 35
      - II. HANDICAPPED: 5

17. HOURS OF OPERATIONS: TBD

18. PAVING AREA (SQ. FT. & % OF NET LOT AREA)
   - A. EXISITING: 30,886 SF 51.2%
   - B. PROPOSED: 22,021 SF 36.5%

19. LANDSCAPE AREA (SQ. FT. & % OF NET LOT AREA):
   - PROPOSED: 13,544 SF 22.4%

20. RECREATION AREA (SQ. FT. & % OF NET LOT AREA):
   - A. PRIVATE: 3,900 SF 6.5%
   - B. COMMON: 5,000 SF 8.3%

SHEET INDEX:

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1" = 20'

DESIGNED UNDER THE SUPERVISON OF:
Terence J. Szewczyk
3-11-19
TERENCE J. SZEWCZYK R.C.E. 35527
EXPIRATION DATE: 09/30/19

BY	REVISIONS	DATE
6		
5		
4		
3		
2		
1		

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CANYON CROSSINGS

TENTATIVE MAP
LAND OF SCR ENTERPRISES, LLC
10625 S. FOOTHILL BLVD
APN: 342-16-087
CUPERTINO SANTA CLARA COUNTY CALIFORNIA

DATE:	3-11-19
SCALE:	1"=20'
DRAWN BY:	DKH
SURVEYED BY:	JMS
PROJ ENGR:	TJS
CHECK BY:	TJS

SHEET NO.
C1
OF 16 SHEETS
JOB NO.
14-214

03/11/2019 4:34pm – N:\2014 JOBS\14-214\dwg\14-214 C1 TENTATIVE MAP.dwg – C1

APPENDIX E:
PHASE I ENVIRONMENTAL SITE ASSESSMENT

APPLIED WATER RESOURCES

APPLIED
WATER
RESOURCES

January 12, 2018

SCR Enterprises
15700 Winchester Blvd.
Los Gatos, CA 95030

Attn: Ms. Dan Shaw

Subject: Phase I Environmental Site Assessment
10625-10637 South Foothill Boulevard/Stevens Canyon Road
Cupertino, California

Dear Mr. Shaw:

Applied Water Resources Corporation (AWR) has prepared this report to document our findings for the Phase I ESA for 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. This ESA was performed to provide a record of the site conditions at the subject property and to evaluate what, if any, recognized environmental conditions exist at this site. Additional goals of this ESA are to identify recognized environmental conditions (RECs) from current and historical practices on the subject property and surrounding area.

The assessment has revealed no indication of recognized environmental conditions in connection with the site.

The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The site has been used for commercial and residential site uses. One of the site occupants is a bike shop that does repairs involving the use of an aqueous parts cleaner. This occupant has only been at the site since 2015 and it appears to have been used appropriately. Our research revealed no indications of current or past releases on the subject site or on nearby properties likely to impact the site.

Based on the age of the buildings, there is a potential that asbestos containing materials and/or lead based paint have been used at the site buildings. This is not a REC as defined in the ASTM standard practice. Any renovation or demolition should comply with applicable sampling and if needed abatement procedures.

AWR looks forward to working with you on this project. Please contact me at 408.220.4876 or at kprice@awrcorp.net if you have any questions or comments.

Best Regards
APPLIED WATER RESOURCES CORPORATION

Kendall W. Price

Kendall W. Price CEG, REA
Principal Consultant/Regional Manager

PHASE I ENVIRONMENTAL SITE ASSESSMENT

10625-10637 South Foothill Boulevard/Stevens Canyon Road

Cupertino, California

January 12, 2018

Prepared For:

SCR Enterprises
15700 Winchester Blvd.
Los Gatos, CA 95030

APPLIED WATER RESOURCES

EXECUTIVE SUMMARY

Consultant: Applied Water Resources Corporation (AWR)

Subject Property: 10625-10637 South Foothill Boulevard/Stevens Canyon Road, Cupertino, California

Client: SCR Enterprises

Location: The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The site is located where South Foothill Boulevard becomes Stevens Canyon Road at the intersection of McClellan Road. The site is referenced as Santa Clara County Assessor's Parcel Number 342-16-087.

Current Use: The irregularly-shaped parcel of land is comprised of approximately 1.6 acres. The Subject Property is currently developed with a large multiple tenant commercial building, a second commercial building with an attached residential structure, a standalone residential building, paved parking and driving areas, and a grassy vegetated area near the residential structures.

Current Owner: The current property owner is SCR Enterprises LLC

Vicinity Characteristics: The surrounding area is primarily residential with some commercial and park use.

Purpose: This Phase I Environmental Site Assessment (ESA) was performed to (1) identify any recognized environmental conditions (RECs), and (2) permit a user to satisfy one of the requirements to qualify for the innocent landowner defense under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability protection (42 U.S.C. §9601). All components of this ESA were performed or overseen by Environmental Professionals as defined in the All Appropriate Inquiries (AAI) Standard and the American Society for Testing and Materials (ASTM) E 1527-13.

Conclusions:

The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The site has been used for commercial and residential site uses. One of the site occupants is a bike shop that does repairs involving the use of an aqueous parts cleaner. This occupant has only been at the site since 2015 and it appears to have been used appropriately. Our research revealed no indications of current or past releases on the subject site or on nearby properties likely to impact the site.

Based on the age of the buildings, there is a potential that asbestos containing materials and/or lead based paint have been used at the site buildings. This is not a REC as defined in the ASTM standard practice. Any renovation or demolition should comply with applicable sampling and if needed abatement procedures.

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APPENDICES

1.0 INTRODUCTION

On behalf of SCR Enterprises (hereinafter referred to as the "Client"), Applied Water Resources Corporation (AWR), performed a Phase I Environmental Site Assessment (ESA) of the property located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road , Cupertino, Santa Clara County, California (hereinafter referred to as the "subject property").

1.1 Purpose

This ESA was performed to provide a record of the site conditions at the subject property and to evaluate what, if any, recognized environmental conditions exist at this site. Additional goals of this ESA are to identify recognized environmental conditions (RECs) from current and historical practices on the subject property and surrounding area and to assist the Client to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability.

1.2 Detailed Scope of Services

The following tasks were performed in accordance with the Scope of Services.

- Visual site inspection of the subject property to investigate for recognized environmental conditions. AWR is not responsible for inspecting areas covered by parked vehicles, overgrown vegetation, and other obstacles preventing access.

- A historical review of the use and improvements of the subject property through a review of aerial photographs, historical topographic maps, city directories, fire insurance maps, title reports, and/or building department records.

- A review of available geologic and hydrogeologic literature concerning the property and surrounding area.

- Interviews of persons familiar with the history of the subject property, including key site managers, owners, tenants, past tenants, and/or previous owners.

- Review of appropriate federal, state, and local regulatory agencies to reveal known hazardous wastes sites or significant leaks or spills of hazardous materials that May have occurred at the subject property and immediate vicinity.

- Interviews with applicable local agencies familiar with the areas in the vicinity of the subject property such as local fire departments, health departments, Regional Water Quality Control Board, and/or other local government agencies.

1.3 Significant Assumptions

No significant assumptions were made during this Phase I ESA.

1.4 Limitations and Exceptions of Agreement

AWR has performed the services for this project in accordance with our proposal, and within the current standards of the American Society for Testing and Materials (ASTM 1527-13) for Phase I Environmental Site Assessments and the standards for All Appropriate Inquiries (AAI) approved by the Federal Environmental Protection Agency. Except for the representations set forth in this Phase I ESA, no other representations, guarantees, or warrantees are either expressed or implied. A record search was limited to reasonably ascertainable information that could be obtained within 20 calendar days.

The review was limited to a search for RECs at the subject property. The term REC means 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, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimus* conditions that generally do not present a material risk of harm to public 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.

There is no investigation that is thorough enough to preclude the presence of hazardous materials that presently, or in the future, may be considered hazardous at the site. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants presently considered low may, in the future, fall under more stringent regulatory standards that require remediation.

The Site Reconnaissance was limited to visual observation of surface conditions at the subject property. Interviews with public agency personnel were conducted. Reasonably ascertainable information was reviewed. This approach reflects current ASTM standards and AAI regulations.

Where there is a conflict between the environmental database and AWR's actual knowledge with regard to the distance and direction from the subject property of sites listed on the database, information obtained by AWR from the site reconnaissance was used. Whenever feasible, AWR notes such conflict within the text of the report.

This ESA addresses recognized environmental conditions at the subject property. However, certain conditions, such as those listed below may not be revealed:

1) naturally occurring toxic materials in subsurface soils, rocks, or water, or toxicity of onsite flora;
2) toxicity of substances common in current habitable environments, such as stored household products, building materials, and consumables;
3) biological pathogens;
4) contaminant plume below the depths sampled or from remote source;
5) contaminants or contaminant concentrations that do not violate present regulatory standards, but may violate future standards; and
6) unknown site contamination, such as illegal dumping and/or accidental spillage which may occur following the site visit by AWR.

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for the Client and any reliance on this report by third parties not authorized by the Client shall be at such party's sole risk.

Conducting an AAI Phase I ESA alone does not provide a landowner with protection against CERCLA liability. Landowners who want to qualify as bona fide prospective purchasers or contiguous property owner must comply with all of the statutory requirements identified in CERCLA Section 107(r) and 107(q).

1.5 Special Terms and Conditions

No special terms or conditions were agreed upon for conducting this Phase I ESA.

1.6 User Reliance

As specified in ASTM E 1527-13, Sections 7.5.2 and 7.5.2.1, AWR is not required to independently verify the information provided by the User (Client), obtained from interviews, previous environmental reports, and/or reviewed documents during records review.

2.0 SITE DESCRIPTION

2.1 Site Location

The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The site is located where South Foothill Boulevard becomes Stevens Canyon Road at the intersection of McClellan Road. The site is referenced as Santa Clara County Assessor's Parcel Number 342-16-087. Maps showing the site location are included in Appendix A.

2.2 Site and Vicinity General Characteristics

The irregularly-shaped parcel of land is comprised of approximately 1.6 acres. The Subject Property is currently developed with a large multiple tenant commercial building, a second commercial building with an attached residential structure, a standalone residential building, paved parking and driving areas, and a grassy vegetated area near the residential structures.

The surrounding area is primarily residential with some commercial and park use.

2.3 Current and Proposed Use of the Property

The Subject Property is currently developed with a large multiple tenant commercial building currently occupied by a market, café/coffee shop, hair salon, Asian restaurant, and a former laundromat used by a general contractor for excess storage, a second commercial building currently used as a bicycle sale and repair shop with an attached residential structure that is currently used for additional storage by the bicycle business, and a standalone residential building that is currently vacant.

It is our understanding the property may be redeveloped. Plans provided by the client show a proposed mixed use building with underground parking, commercial use on the ground floor, and apartments on the upper floor in the front center portion of the site. Additional residential development (single family residences, duplexes, and one triplex) as well as parking and driving areas is planned on the sides and rear of the site.

2.4 Description of Structures, Road, and Other Improvements

The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The irregularly-shaped parcel of land is comprised of approximately 1.6 acres. The Subject Property is currently developed with a large multiple tenant commercial building, a second commercial building with an attached residential structure, a standalone residential building, paved parking and driving areas, and a grassy vegetated area near the residential structures.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

An Environmental Liens Search was performed by EDR as a part of this Phase I ESA. No additional title information was provided by the user.

3.2 Environmental Liens or Activity and Use Limitations

The Environmental Professional is required to search for Activity and Use Limitations (AULs) if such records are available in *"publicly available lists or registries."* Typical AULs include land use restrictions (LURs), institutional controls (ICs), and Engineering Controls (ECs). Typical ICs include: 1) governmental controls such as zoning; 2) proprietary controls such as covenants or easements; 3) enforcement documents such as orders or consent decrees; and 4) information devices such as land record or deed notices. Typical ECs include: 1) passive measures such as vapor barriers and setbacks; 2) active measures such as remediation systems; and 3) monitoring of passive and/or active measures. According to 40 CFR Part 312.26 (b) (7), ICs are to be investigated on the subject property and according to 40 CFR Part 312.26 (b) (6) and (c) (2) (ii), ECs are to be reviewed to a 0.5 mile radius of the subject property. ASTM 1527-13 recommends that ECs be reviewed only for the subject property.

An Environmental Liens Search was performed for the subject property. The Environmental Liens Search did not report any environmental liens associated with the subject property.

3.3 Specialized Knowledge

AWR does not have and was not informed of any specialized knowledge associated with the subject property or the area in the vicinity of the subject property.

3.4 Commonly Known or Reasonably Ascertainable Information

AWR did not discover any commonly known or reasonable ascertainable information associated with the subject property or the area in the vicinity of the subject property.

3.5 Valuation Reduction for Environmental Issues

AWR was not provided with purchase price information.

3.6 Owner, Property Manager, and Occupant Information

The current property owner is SCR Enterprises. No property manager was identified to AWR.

The Subject Property is currently developed with a large multiple tenant commercial building currently occupied by a market, café/coffee shop, hair salon, Asian restaurant, and a former laundromat used by a general contractor for excess storage, a second commercial building currently used as a bicycle sale and repair shop with an attached residential structure that is currently used for additional storage by the bicycle business, and a standalone residential building that is currently vacant.

3.7 Reason for Performing the Phase I ESA

AWR has performed this Phase I ESA for the property owner to evaluate current site conditions in preparation of redeveloping the property.

3.8 Previous Reports

AWR was not provided with previous environmental reports for the subject site.

4.0 RECORDS REVIEW

The government environmental agency databases AWR reviewed are listed on pages 4 through 7 of the Map Findings Summary of the database obtained from Environmental Data Resources, Inc. (EDR), included as Appendix C. Please refer to the EDR report in Appendix C for additional information on the searched databases including the full names of the databases, the regulatory agency overseeing the databases, a summary of the types of facilities listed on each database, and the dates the information was obtained from the regulatory agencies. Where locations and distances reported by EDR were observed to be incorrect, AWR amended the information to provide a more accurate assessment.

AWR also requested information from the San Francisco Bay Regional Water Quality Control Board, the Santa Clara County Environmental Health Department, and the California Department of Toxic Substance Control Envirostor database. Information from these sources for the subject site is included in Section 4.1.1.

4.1 Standard Environmental Record Sources

4.1.1 Subject Property

AWR reviewed available environmental databases for the site and surrounding area. There was one listing for the site address. Cupertino Bike Shop at 10625 S Foothill Blvd was identifies on the CUPA Listings database. According to information in the EDR report, the facility generates less than 100 kilograms per year. No violations or releases were noted in the EDR report.

Santa Clara County Environmental Health Department
AWR reviewed records for the subject property addresses at the Santa Clara County Environmental Health Department. The records provided additional information on the bike shop operations at the site and included inspections and submittals. The bike shop began operations in 2015 and as part of their operations use an aqueous parts cleaner on the site which generates small quantities (estimated by the bike shop owner as 75 to 100 gallons per year) of hazardous waste. Everything appears to be appropriate and no indications of spills, releases, or violations was noted in the inspections or submittals.

California Department of Toxic Substance Control
AWR reviewed files at the California Department of Toxic Substance Control Envirostor database. None of the records appeared to correspond to the site.

Regional Water Quality Control Board
AWR reviewed files at the Regional Water Quality Control Board Geotracker database. None of the records appeared to correspond to the site.

US EPA Region 9
AWR reviewed files available online for the US Environmental Protection Agency (EPA) Region 9 Superfund sites. There were no release files for the subject site address.

4.1.2 Offsite Listings

There were listings for nearby properties in the vicinity of the site. The listings included the remediation of illegally dumped soil at a residential property approximately 500 feet northeast of the site, a release from an underground storage tank approximately 2500 feet from the site, and pesticide impacts from a former blackberry farm approximately 2600 feet from the site. All the identified releases have been closed indicating no additional investigation or remediation is required. Based on the distance, closed status, and nature of the reported releases, these offsite releases do not appear likely to have impacted the site.

The other listings were for databases of businesses such as the site where there are hazardous materials used or stored at the site and there is no indication of a spill or release or material mishandling. Based on the nature of the databases and distance to the site, these listings do not appear likely to impact the subject site.

4.1.3 Other Sites of Potential Environmental Concern

AWR did not identify any other sites of environmental concern. AWR reviewed the sites in the EDR Database that were unable to be mapped. None of the listings appeared to correspond to the site or adjacent properties. None of the listings appear likely to have the potential to impact the site.

4.2 Agency File Reviews

AWR reviewed information on this site from the California Department of Toxic Substance Control (DTSC) Envirostor database, the Santa Clara County Environmental Health Department, the California Geotracker Database, and US EPA. Information from sources were included in Section 4.1.

4.3 Physical Setting Sources(s)

The EDR Report in Appendix C indicates that the underlying hard rock geology consists of Cenozoic Tertiary continental deposits. Surface soils in the vicinity of the site are classified by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) as urban land not further evaluated.

The environmental investigations on nearby property reported groundwater is typically first encountered approximately 25 to 30 feet below the surface and groundwater flow is presumed to be to the northwest based on topography This may indicate groundwater flow direction is impacted by tidal or seasonal changes and other local variations.

According to the 2012 USGS Cupertino, California Quadrangle Map, the site elevation is approximately 429 feet above mean sea level with a regional topographic slope downward to the east.

4.4 Historical Use Information on the Property and Adjoining Properties

Based on a review of historical aerial photographs and historical topographic maps, the site and was originally orchards and support buildings in 1939 and earlier years. By 1948 the orchard was removed and the property was developed with a large building near Stevens Canyon Road, which may have been the current bike shop building at 10625 South Foothill Boulevard. The purpose of the site structures was not apparent on the aerial photographs. Additional structures were constructed at the site through 1963

The 1968 through 2012 photographs show the site similar to the current configuration.

Historical City directories list the following occupants of the site address:

<u>2014</u>
10625 DUNCAN, KENNY, JONES, KEVIN KNOX, SHARRON LIM, TERY ROBINSON, MARCUS
10627 PERKINS, KENNETH
10629 STEVENS CREEK MARKET AND VIDEO, U HAUL NEIGHBORHOOD DEALER
10631 JUICE FOR YOU CAFE
10633 GUSTAVOS HAIR BY DESIGN
10635 JUDYS KITCHEN

<u>2010</u>
10625 AGUILAR, E, DUNCAN, KENNY
10627 PERKINS, ALBERTA A
10629 STEVENS CREEK MARKET AND VIDEO
10631 ESTAMPAS CAFE
10635 JUDYS KITCHEN

<u>2005</u>
10625 CURVES INTERNATIONAL INC
10627 OCCUPANT UNKNOWN,
10629 STEVENS CREEK MARKET AND VIDEO
10633 GUSTAVOS HAIR BY DESIGN, NEFS HAIR DESIGN
10635 JUDYS KITCHEN

<u>2000</u>
10625 BRUSCHETTAS PIZZA
10629 STEVENS CREEK MARKET AND VIDEO
10633 NEFS HAIR DESIGN
10635 JUDYS KITCHEN

<u>1995</u>
10625 APOLLO PIZZA
10627 OCCUPANT UNKNOWNN
10629 RAYS QUALITY MEATS, RAYS QUALITY MEATS & DELI, STEVENS CREEK MARKET
10631 CANYON VIDEO
10633 NEFS HAIR DESIGN

1992
10625 V JS PIZZA
10627 ROBERTS, CARL P SR
10629 RAYS QUALITY MEATS, RAYS QUALITY MEATS & DELI, STEVENS CREEK MARKET
10631 CANYON VIDEO
10633 NEFS HAIR DESIGN

1986
10625 GARZA L, V JS PIZZA
10627 ROBERTS, CARL P SR
10629 STEVENS CREEK MARKET
10631 C L&L REALTY
10633 NEFS HAIR DESIGN
10635 LITTLE LANTERN HSE

1980
10625 ROBERTS CARL P SR, WALDO FOODS
10627 SARGENT, GH
10629 STEVENS CREEK MARKET
10631 C L&L REALTY, CHANDA AL, LAFFEN MARLENE, LANGLEY PAT
10633 NEFS HAIR DESIGN
10635 DJS COFFEE SHOP
10637 NO LISTING

1975
10625 MITCHELL BROS AUTO, ROBERTS CARL P SR
10627 SARGENT, GH
10629 STEVENS CREEK MARKET
10631 J P PET MART
10633 NEFS HAIR DESIGN
10635 RAYS TV LAB
10637 JOLEE COIN OP LAUNDRY

1970
10625 ROBERTS CARL P SR
10631 J P PET MART

Some of the listings were on Foothill Boulevard and others were Stevens Canyon Boulevard. As noted elsewhere in the report, the site is where the street name changes and it appears different businesses have used wither street name for the addresses.

5.0 SITE RECONNAISSANCE

The goal of the site reconnaissance is to obtain information indicating the likelihood of identifying RECs in connection with the subject property. The subject property is visually observed and any structures located on the property are observed to the extent not obstructed by bodies of water, adjacent buildings, and/or other obstructions.

5.1 Methodology and Limiting Conditions

The exterior site reconnaissance was performed by walking open areas of the property in a grid fashion. Special attention was given to observe surfaces adjacent to the structures and sidewalks, surfaces in storage areas, and potential conduits to the subsurface such as drains and sumps. The interior site reconnaissance was performed by systematically observing each room and open space of the property. Additional attention was given to doors, utility rooms, storage areas, areas where hazardous materials were used or stored, and any other accessible areas.

5.2 General Site Setting

Ms. Janelle Amendola of AWR conducted a site reconnaissance at the subject property. Ms. Amendola was accompanied by Mr. Dan Shaw of SCR Enterprises, the current property owner and planned redeveloper of the subject site. Mr. Shaw provided information on the site and proposed redevelopment.

5.3 Exterior Observations

The majority of the site exterior is paved with the exception of grassy areas near the former residential units. Minimal staining typical of parking areas was observed at the site, but no other staining, stressed vegetation, or other potential concerns were observed in the site exterior.

5.4 Interior Observations

AWR was able to enter the market and the Asian restaurant. The remaining units including the bike shop, the two residences, the former laundromat currently used for construction contractor storage, the coffee shop, and the hair salon were locked at the time of the site visit but were able to be viewed through windows. Based on the nature of the site uses, not directly accessing these areas does not appear to be a significant data gap. The market and the bike shop sell retail size quantities of materials and the bicycle shop conducts repairs including the use of small quantities of lubricants, grease, and an aqueous parts cleaner. Although AWR was not able to directly view these areas, there were no indication that the use of these materials has impacted the site. There was no other hazardous materials at the site.

Signs indicate that the end suite at 10637 was formerly a laundromat, but it is currently only used by a general contractor for storage. Due to the amount of materials stored in this area, it was not possible to fully view the floor, but there is no indication that dry cleaning was done in this suite. It appears to have only been used as a laundromat.

6.0 INTERVIEWS

6.1 Interview with Owner Representative

AWR was accompanied by Mr. Dan Shaw of SCR Enterprises, the current property owner and planned redeveloper of the subject site. Mr. Shaw provided information on the site and site operations described elsewhere within this report.

6.2 Interview with Site Manager

No property manager was identified to AWR.

6.3 Interviews with Occupants

AWR spoke with the Stevens Creek Market and the Asian restaurant during the site visit. Due to the nature of the current site occupants, formal interviews were not conducted.

6.4 Interviews with Local Government Officials

AWR reviewed information from the Santa Clara Environmental Health Department, the San Francisco Bay Regional Quality Control Board, and the California Department of Toxic Substance Control. Information from these requests is presented elsewhere throughout this report.

6.5 Interviews with Others

AWR did not perform any interviews with others regarding the subject property.

7.0 FINDINGS

The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The site has been used for commercial and residential site uses. One of the site occupants is a bike shop that does repairs involving the use of an aqueous parts cleaner. This occupant has only been at the site since 2015 and it appears to have been used appropriately. Our research revealed no indications of current or past releases on the subject site or on nearby properties likely to impact the site.

Based on the age of the buildings, there is a potential that asbestos containing materials and/or lead based paint have been used at the site buildings.

7.1 Data Gaps

AWR was not able to review a Chain of Title Report for the subject property. It is AWR's opinion that the lack of this information does not pose a significant data gap, as an environmental lien search was performed for the subject property and revealed no issues.

7.2 Continuing Obligations

Continuing obligations start on the date that a landowner acquires title to a property. The landowner must: 1) comply with land use restrictions and institutional controls; 2) take "reasonable" steps with respect to hazardous substances releases; 3) provide full cooperation, assistance and access to persons that are authorized to conduct response actions or natural resource restoration; 4) comply with information requests and administrative subpoenas; and 5) provide all legally required notices. Continuing obligations must be satisfied to maintain liability protection under CERCLA for innocent landowners, bona fide prospective purchasers, and contiguous property owners. No specific continuing obligations were identified for the site.

8.0 OPINION

8.1 Opinion of Findings

The Subject Property is located at 10625-10637 South Foothill Boulevard/Stevens Canyon Road in Cupertino, California. The site has been used for commercial and residential site uses. One of the site occupants is a bike shop that does repairs involving the use of an aqueous parts cleaner. This occupant has only been at the site since 2015 and it appears to have been used appropriately. Our research revealed no indications of current or past releases on the subject site or on nearby properties likely to impact the site.

Based on the age of the buildings, there is a potential that asbestos containing materials and/or lead based paint have been used at the site buildings. This is not a REC as defined in the ASTM standard practice. Any renovation or demolition should comply with applicable sampling and if needed abatement procedures.

8.2 Recommendations

Based on the age of the building, there is a potential that asbestos containing materials and/or lead based paint have been used at the site building. This is not a REC as defined in the ASTM standard practice. Any renovation or demolition should comply with applicable sampling and if needed abatement procedures.

9.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of 10625-10637 South Foothill Boulevard/Stevens Canyon Road , Cupertino, Santa Clara County, California, the subject property. Any exceptions to, or deletions from, this practice are described in Section 5.1 of this Report.

The assessment has revealed no indication of recognized environmental conditions in connection with the site.

Based on the age of the building, there is a potential that asbestos containing materials and/or lead based paint have been used at the site building. This is not a REC as defined in the ASTM standard practice. Any renovation or demolition should comply with applicable sampling and if needed abatement procedures.

10.0 DEVIATIONS

AWR did not evaluate the purchase price versus property value as AWR is not qualified to evaluate this issue.

11.0 ADDITIONAL SERVICES

AWR has completed no additional services in conjunction with this Phase I ESA.

12.0 REFERENCES

EDR City Abstract:– 1927-2012.

Historic Sanborn® Fire Insurance Maps: No coverage

Aerial Photographs: 1939, 1948 1956, 1968, 1974, 1982, 1991, 1999, 2005, 2006, 2009, 2010, and 2012.

The following governmental agencies were contacted to obtain the information in this report:

Jurisdiction	**Agency**
Federal	U.S. Environmental Protection Agency, Region IX, San Francisco
State and Regional	State of California Environmental Protection Agency, Department of Toxic Substances Control, Berkeley San Francisco Bay Regional Water Quality Control Board
County and Local	Santa Clara County Environmental Health Dept. Cupertino Building Department

Websites:
http://www.envirostor.dtsc.ca.gov/public/
http://www.geotracker.swrcb.ca.gov/
http://www.dhs.ca.gov/radon/default.htm

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined in §312.21 of 40 CFR Part 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Janelle Amendola

Janelle Amendola, REA
Environmental Assessor

Reviewed by:

Kendall W.

Kendall W. Price, CEG, REA
Regional Manager/Principal Consultant

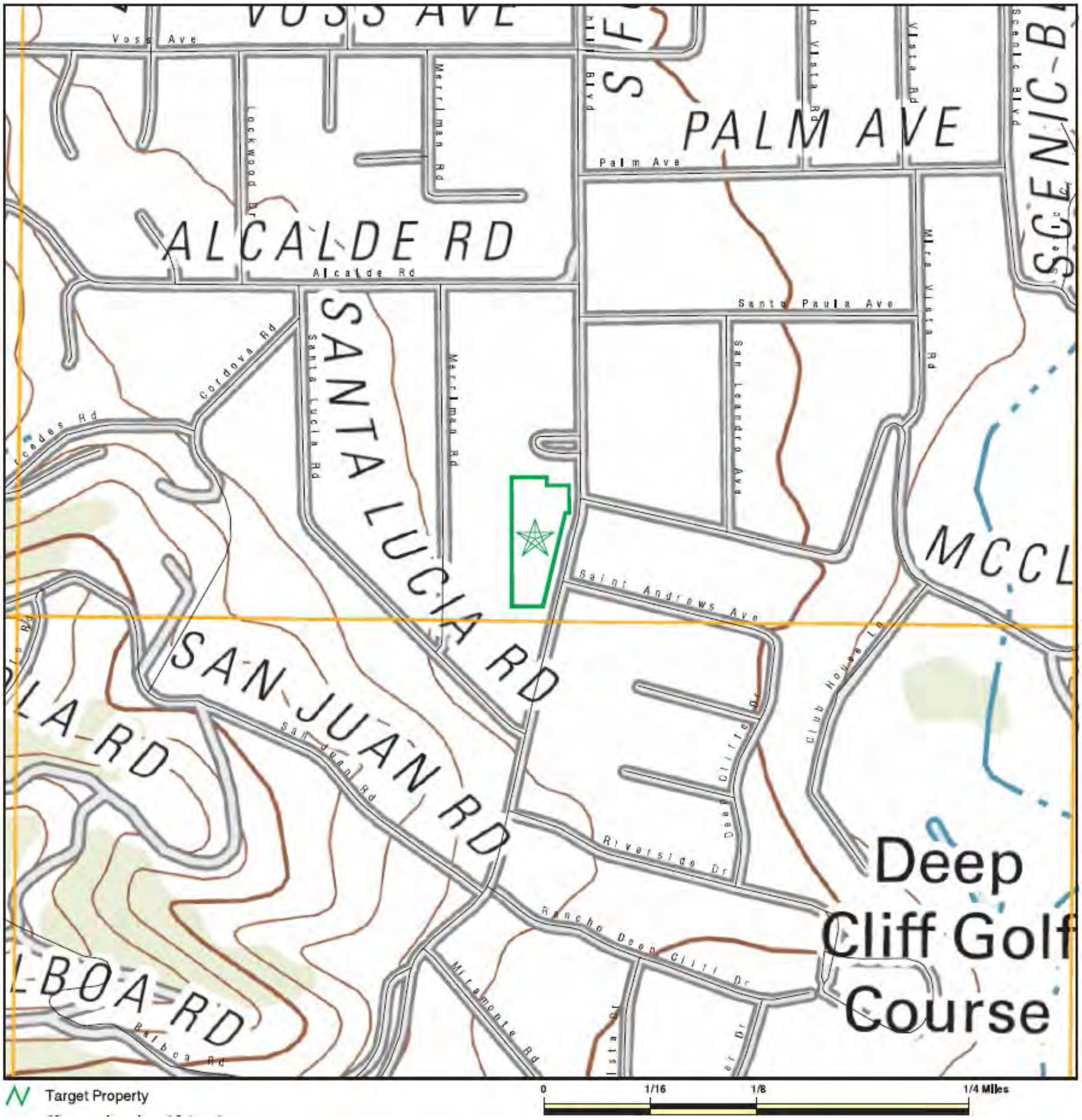
14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Pursuant to 40 CFR 10 and according to 40 CFR Part 312, the Environmental Professionals listed in Section 13.0 possess sufficient education, training, and experience necessary to exercise the professional judgment to develop the opinions and conclusions regarding conditions indicative of releases or threatened releases on, at, in or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f). See Appendix D for resumes on the following individuals:

Ms. Janelle Amendola

Mr. Kendall Price

APPENDIX A
Site Location Map



NOTE: Base map from figure prepared by USGS and provided to AWR by EDR.

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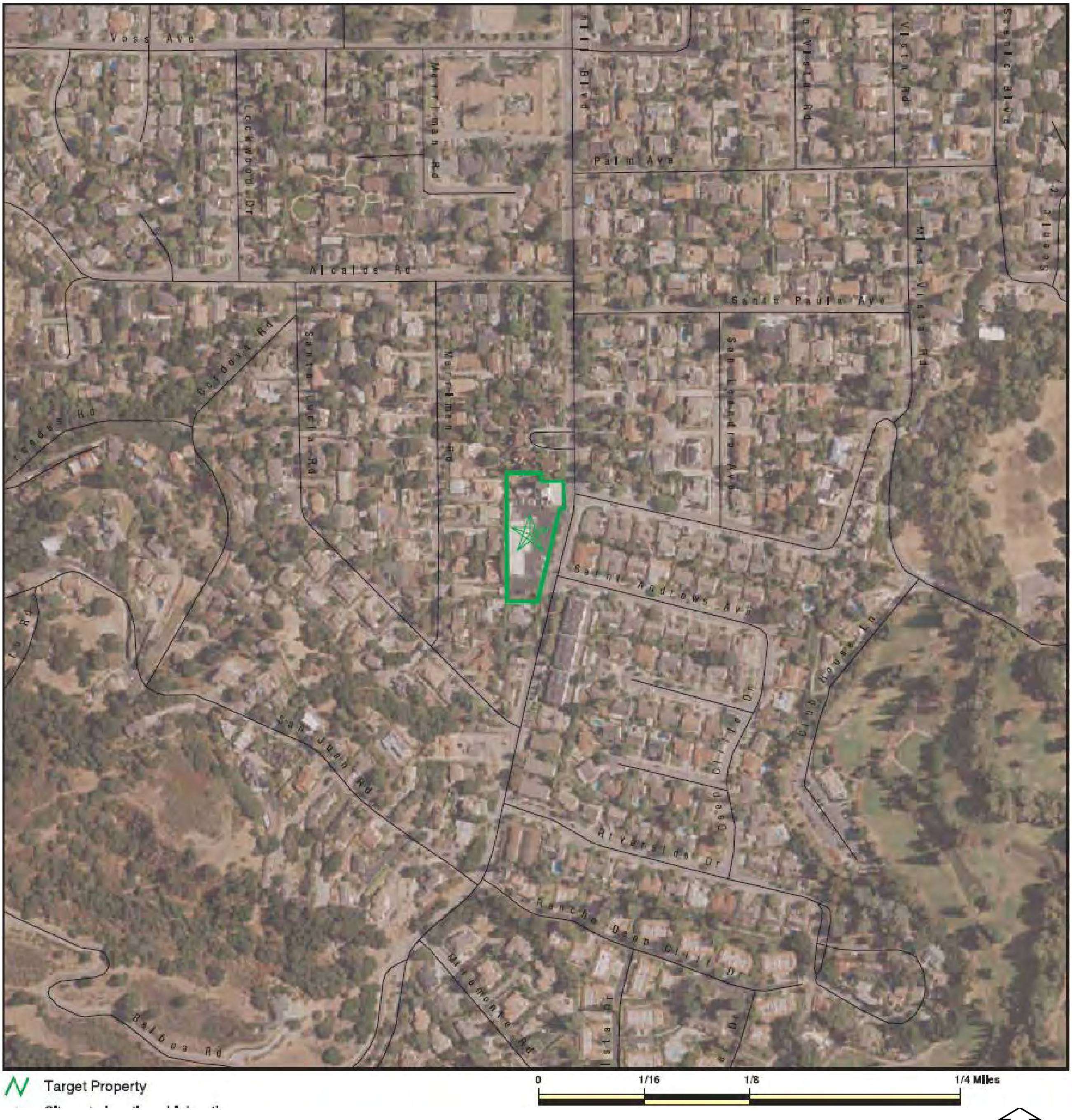
FIGURE 1 – Site Location

10625-10637 South Foothill Boulevard/Stevens Canyon Road
Cupertino, California

APPLIED WATER RESOURCES

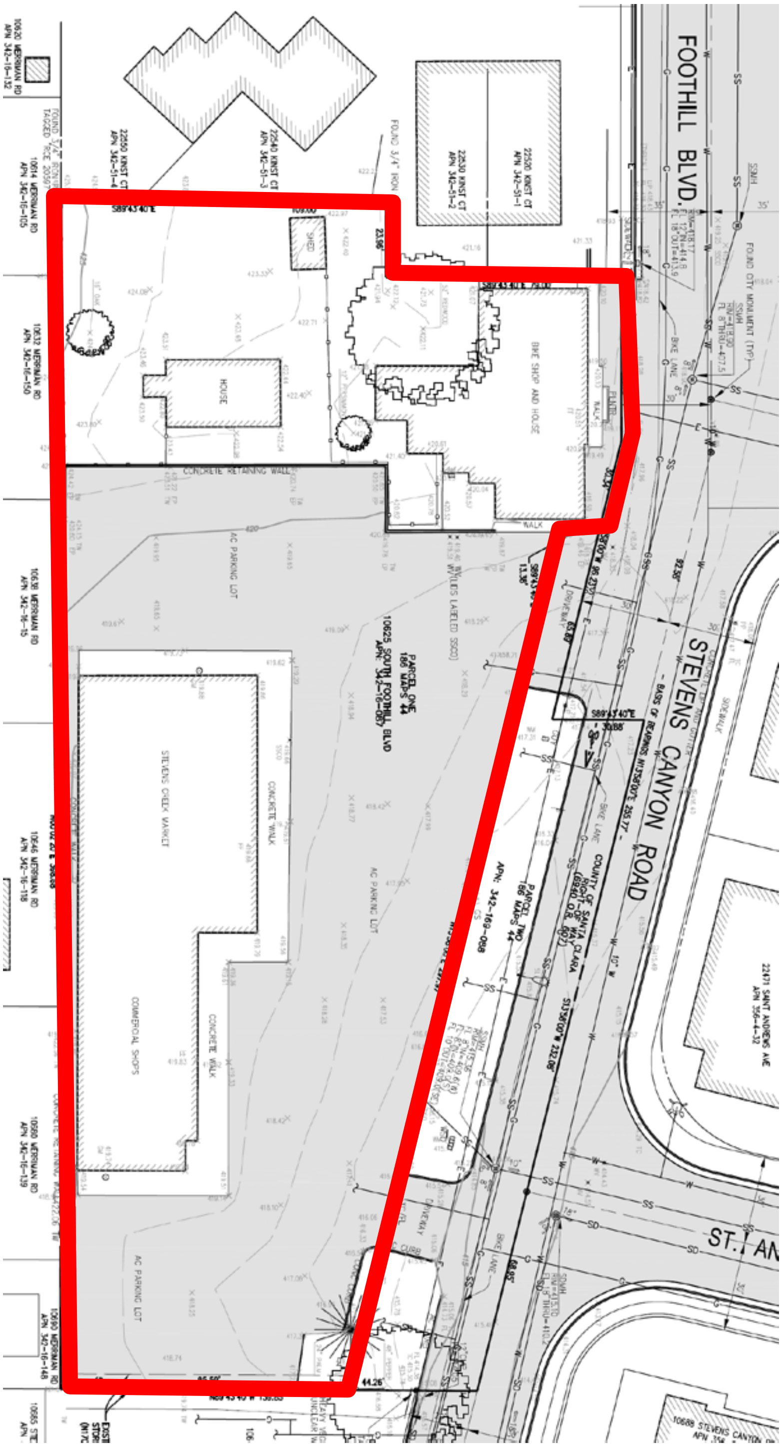


NOTE: Base photo provided to AWR by EDR.

FIGURE 2 – Site Location

10625-10637 South Foothill Boulevard/Stevens Canyon Road
Cupertino, California

APPLIED WATER RESOURCES



NOTE: Map taken from survey provided to AWR by client

FIGURE 3 – Site Layout

10625-10637 South Foothill Boulevard/Stevens Canyon Road
Cupertino, California

APPLIED WATER RESOURCES

APPENDIX B
Site Photographs

Photo 1: View of main site building

Photo 2: View main site building

APPLIED
WATER
RESOURCES

Photo 3: View of rear of bike shop with attached residence used for storage in northeastern part of site

Photo 4: View of rear of bike shop with attached residence used for storage in northeastern part of site

Photo 5: View of vacant residential unit in northwestern portion of site

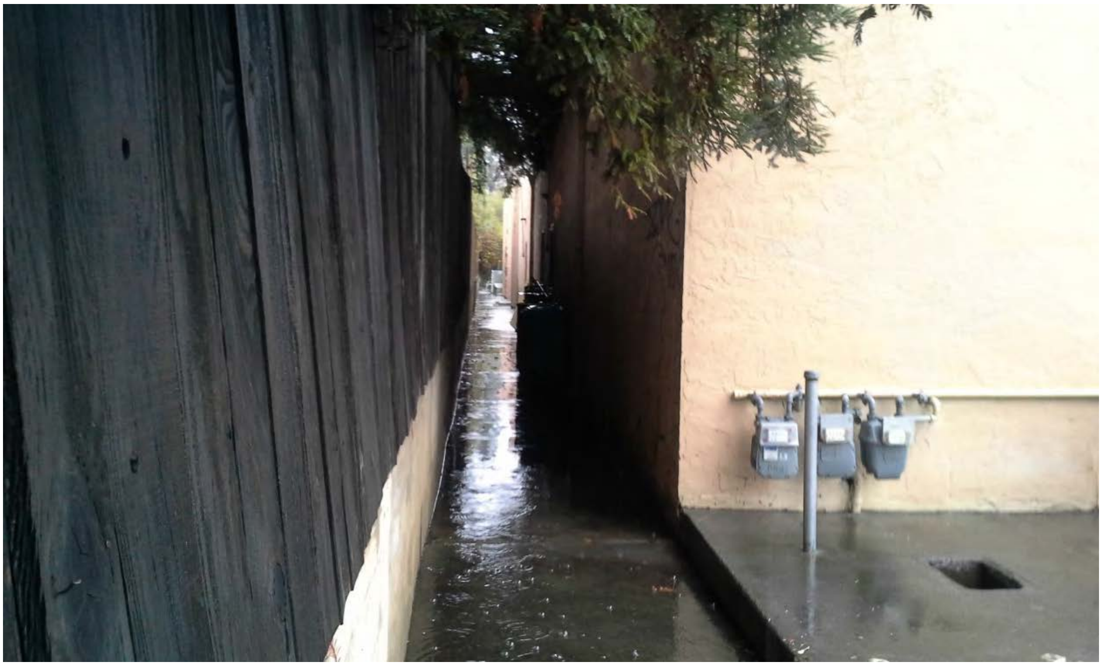


Photo 6: View of utilities and rear of main site building

APPLIED
WATER
RESOURCES

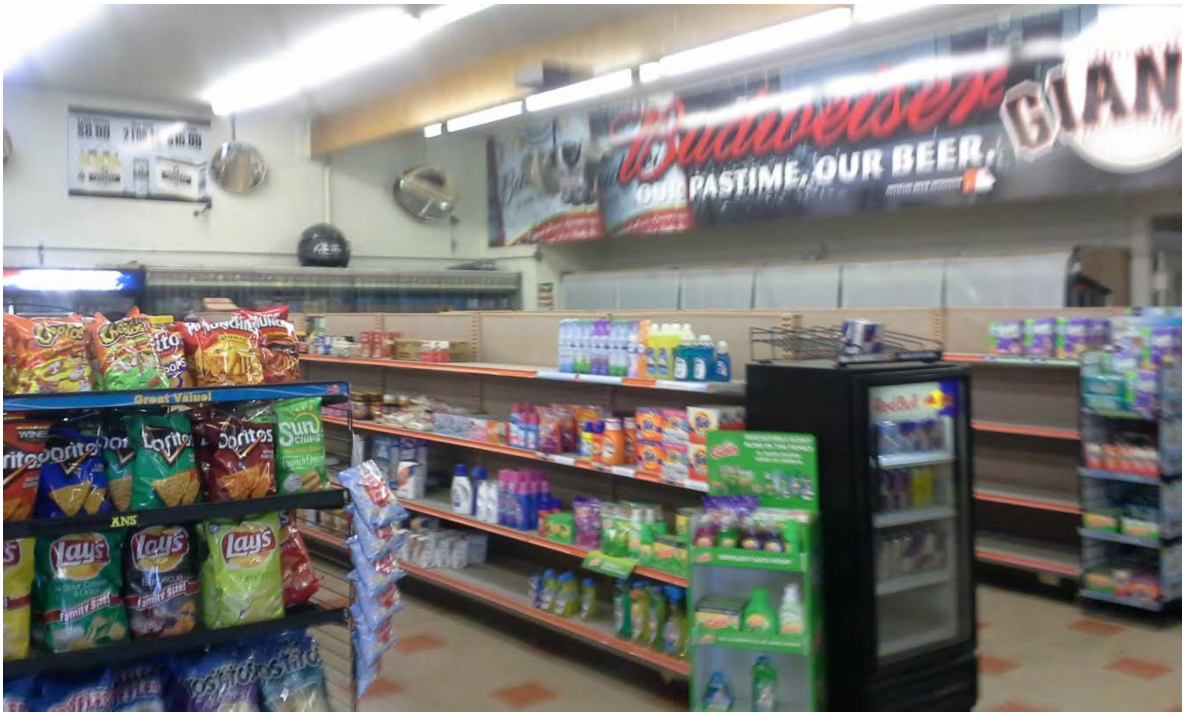


Photo 7: View inside market

Photo 8: View of deli in market area

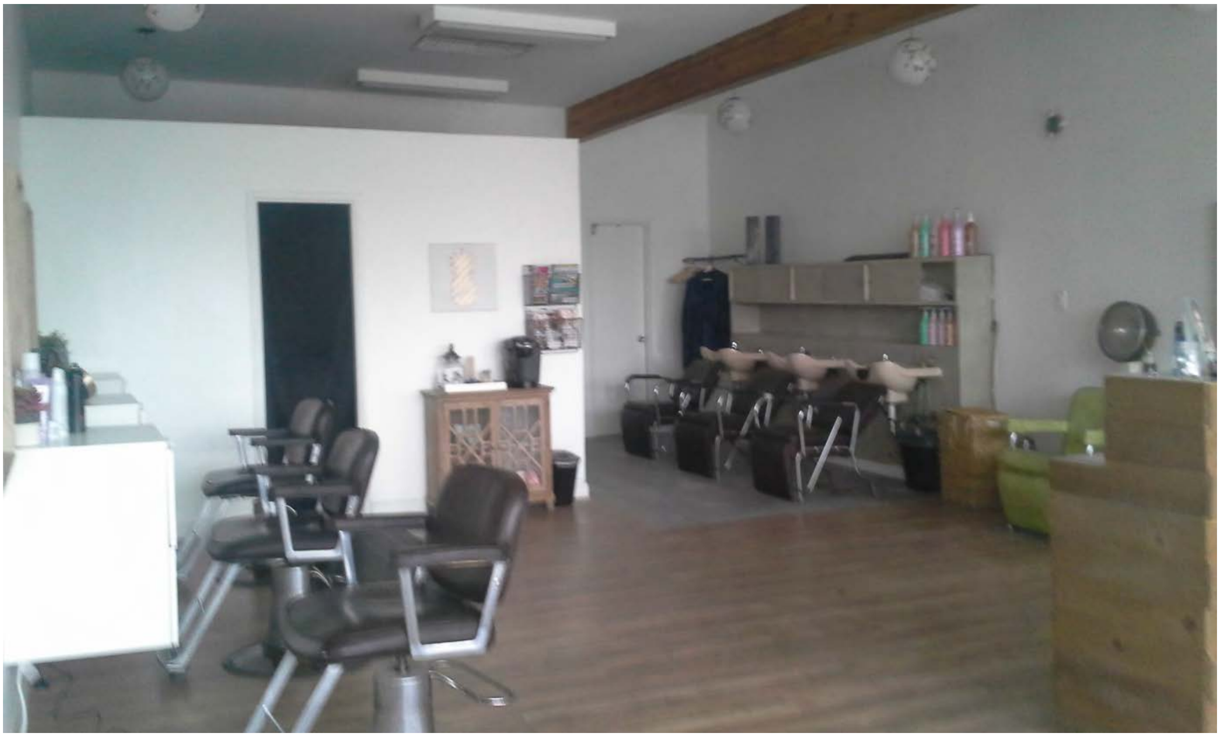


Photo 9: View of hair salon at site

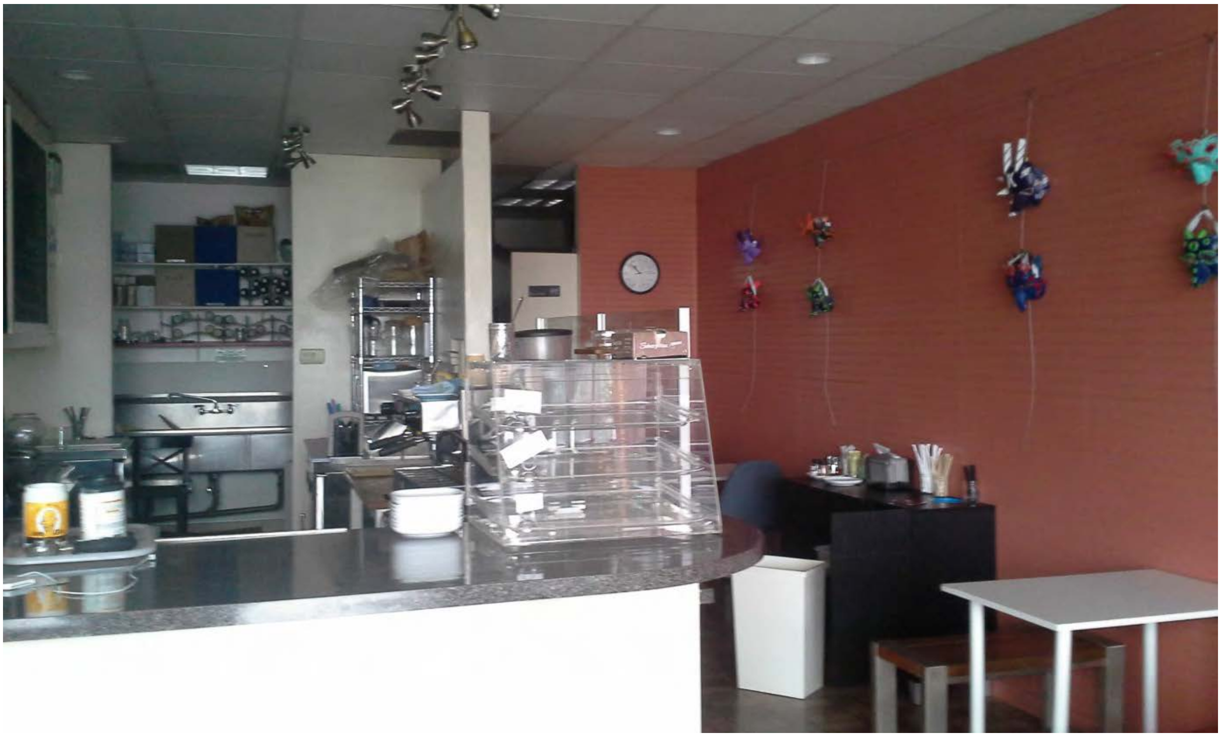


Photo 10: View of interior of coffee shop at site

APPENDIX C
EDR Database Report

10625-10637 Stevens Canyon Road
10625 S Foothill Boulevard
Cupertino, CA 95014

Inquiry Number: 5134350.2s
December 11, 2017

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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SECTION **PAGE**

GEOCHECK ADDENDUM

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

10625 S FOOTHILL BOULEVARD
CUPERTINO, CA 95014

COORDINATES

Latitude (North):	37.3136980 - 37˚ 18' 49.31''
Longitude (West):	122.0690710 - 122˚ 4' 8.65''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	582491.9
UTM Y (Meters):	4129875.0
Elevation:	429 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640178 CUPERTINO, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606, 20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
10625 S FOOTHILL BOULEVARD
CUPERTINO, CA 95014

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	CUPERTINO BIKE SHOP	10625 S FOOTHILL BL	CUPA Listings		TP
2	PRIVATE RESIDENCE	PRIVATE RESIDENCE	SLIC	Lower	435, 0.082, ENE
3	DEEP CLIFF GOLF COUR	10700 CLUBHOUSE LN	CUPA Listings	Lower	974, 0.184, ESE
4	MARIANIST CENTER	22622 MARIANIST WAY	SWEEPS UST, CA FID UST, EMI	Higher	994, 0.188, NNW
5	TRESSLER PROPERTY	22110 MCCLELLAN	LUST, HIST LUST, HIST CORTESE	Lower	2512, 0.476, East
6	BLACKBERRY FARM PLAY	21979 SAN FERNANDO D	ENVIROSTOR, VCP, CUPA Listings	Lower	2608, 0.494, NE
7	ARCO SERVICE STATION	10121 NORTH FOOTHILL	Notify 65	Lower	3385, 0.641, North
8	KAISER ALUMINUM & CH	23333 STEVENS CREEK	ENVIROSTOR, SLIC, EMI, HIST CORTESE	Lower	3527, 0.668, NW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
CUPERTINO BIKE SHOP 10625 S FOOTHILL BL CUPERTINO, CA 95014	CUPA Listings Database: CUPA SANTA CLARA, Date of Government Version: 08/07/2017	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 CERCLIS NFRAP site list

SEMS-ARCHIVE	Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS	Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF	RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG	RCRA - Large Quantity Generators

RCRA-SQG	RCRA - Small Quantity Generators
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
US INST CONTROL	Sites with Institutional Controls

Federal ERNS list

ERNS	Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE	State Response Sites

State and tribal landfill and/or solid waste disposal site lists

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
UST	Active UST Facilities
AST	Aboveground Petroleum Storage Tank Facilities
INDIAN UST	Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP	Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS	Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS	A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT	Waste Management Unit Database
SWRCY	Recycler Database
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

EXECUTIVE SUMMARY

IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST	Hazardous Substance Storage Container Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
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
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
SAN JOSE HAZMAT	Hazardous Material Facilities
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

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.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

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 ENVIROSTOR list, as provided by EDR, and dated 07/31/2017 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BLACKBERRY FARM PLAY Facility Id: 60001205 Status: No Further Action	***21979 SAN FERNANDO D***	***NE 1/4 - 1/2 (0.494 mi.)***	***6***	***15***
KAISER ALUMINUM & CH Facility Id: 43330001 Status: Refer: RWQCB	***23333 STEVENS CREEK***	***NW 1/2 - 1 (0.668 mi.)***	***8***	***17***

State and tribal leaking storage tank lists

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 LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TRESSLER PROPERTY Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014 Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 09/11/2017	***22110 MCCLELLAN***	***E 1/4 - 1/2 (0.476 mi.)***	***5***	***13***

Status: Completed - Case Closed
Facility Status: Case Closed
Date Closed: 03/12/1997
Global Id: T0608501985
SCVWD ID: 07S2W22A01F
date9: 3/12/1997

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 SLIC list, as provided by EDR, has revealed that there is 1 SLIC site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PRIVATE RESIDENCE	PRIVATE RESIDENCE	ENE 0 - 1/8 (0.082 mi.)	2	8

Database: SLIC, Date of Government Version: 09/11/2017
Facility Status: Completed - Case Closed
Global Id: T10000003039

HIST LUST: 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.

A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there is 1 HIST LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TRESSLER PROPERTY	***22110 MCCLELLAN***	***E 1/4 - 1/2 (0.476 mi.)***	***5***	***13***

SCVWD ID: 07S2W22A01

State and tribal voluntary cleanup sites

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 VCP list, as provided by EDR, and dated 07/31/2017 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BLACKBERRY FARM PLAY	***21979 SAN FERNANDO D***	***NE 1/4 - 1/2 (0.494 mi.)***	***6***	***15***

Status: No Further Action
Facility Id: 60001205

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

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 SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARIANIST CENTER Comp Number: 600	***22622 MARIANIST WAY***	***NNW 1/8 - 1/4 (0.188 mi.)***	***4***	***9***

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.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARIANIST CENTER Facility Id: 43005657 Status: A	***22622 MARIANIST WAY***	***NNW 1/8 - 1/4 (0.188 mi.)***	***4***	***9***

Other Ascertainable Records

CUPA Listings: 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.

A review of the CUPA Listings list, as provided by EDR, has revealed that there is 1 CUPA Listings site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
DEEP CLIFF GOLF COUR Database: CUPA SANTA CLARA, Date of Government Version: 08/07/2017	10700 CLUBHOUSE LN	ESE 1/8 - 1/4 (0.184 mi.)	3	8

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 HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TRESSLER PROPERTY Reg Id: 43-2161	***22110 MCCLELLAN***	***E 1/4 - 1/2 (0.476 mi.)***	***5***	***13***

Notify 65: 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.

A review of the Notify 65 list, as provided by EDR, and dated 06/16/2017 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

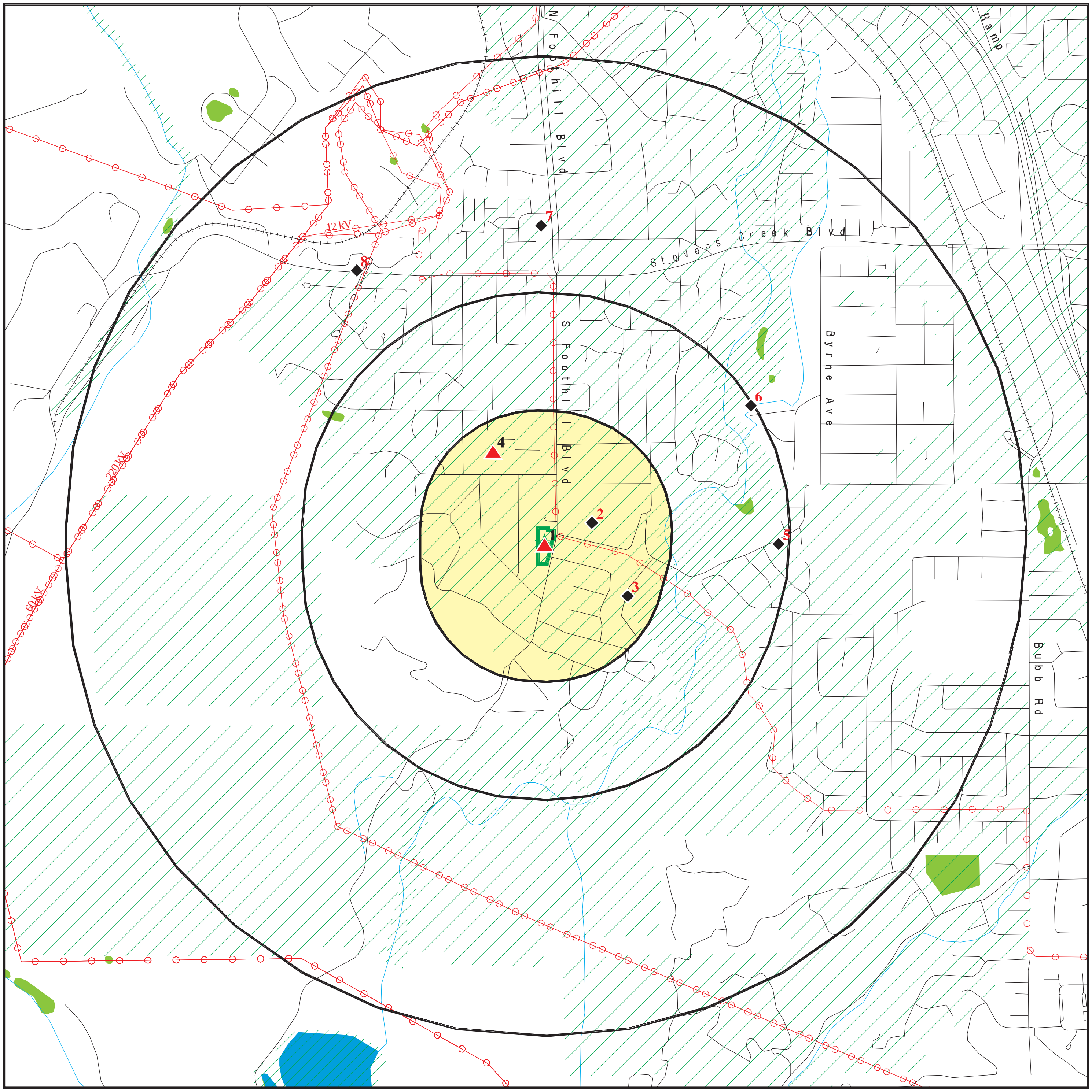
Lower Elevation	Address	Direction / Distance	Map ID	Page
ARCO SERVICE STATION	10121 NORTH FOOTHILL	N 1/2 - 1 (0.641 mi.)	7	17

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

Site Name	Database(s)
FRANCISCO A SERRANO	LUST, HIST LUST, HIST UST
STEVENS CANYON ROAD BRIDGE 37C0604	FINDS
BRIDGE 37C0571 OVER STEVENS CREEK	FINDS
STEVENS CANYON ROAD BRIDGE 37C0605	FINDS

OVERVIEW MAP - 5134350.2S



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

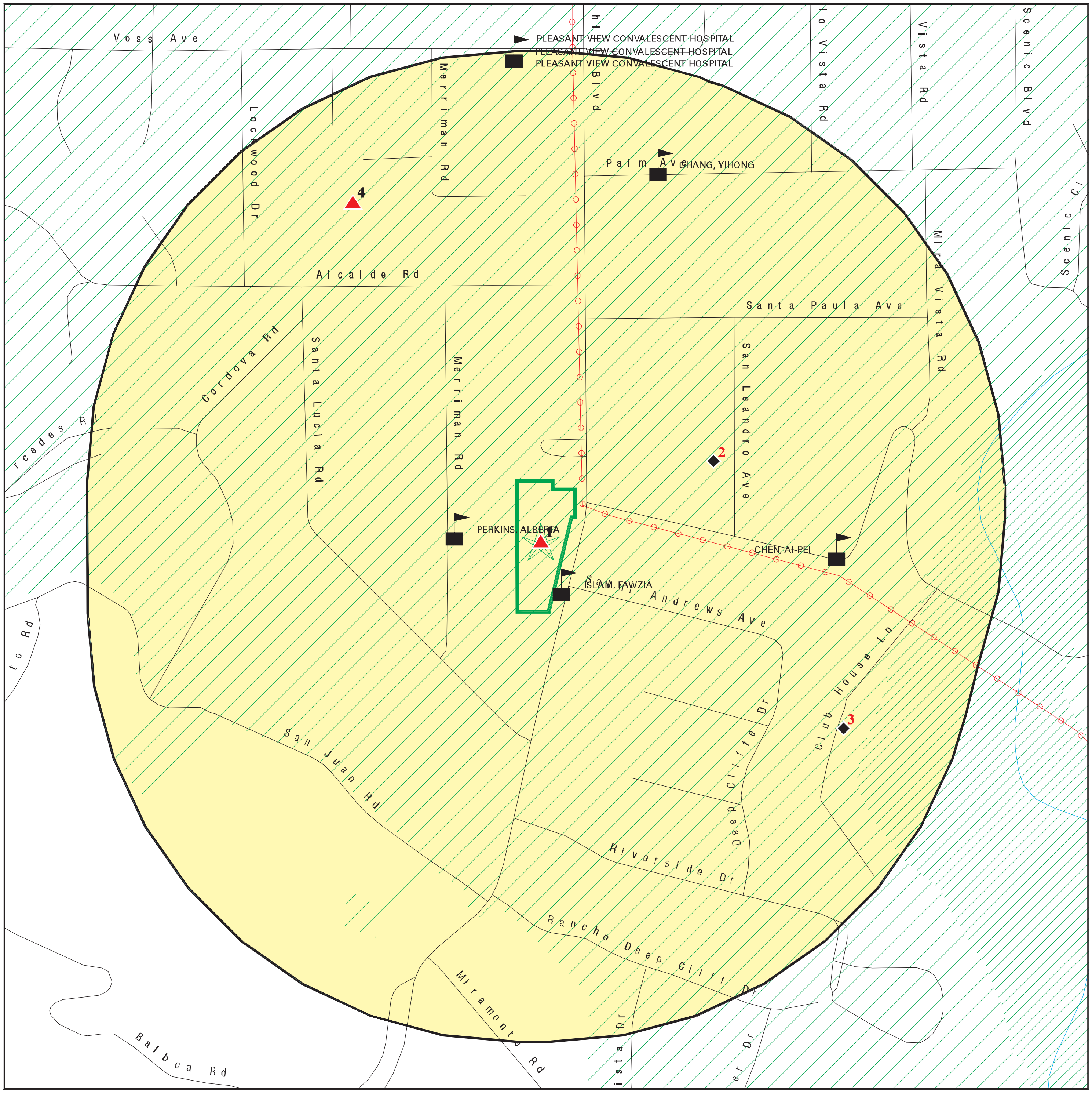
- Upgradient Area
- Areas of Concern

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: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino CA 95014
LAT/LONG: 37.313698 / 122.069071

CLIENT: Applied Water Resources Corporation
CONTACT: Janelle Amendola
INQUIRY #: 5134350.2s
DATE: December 11, 2017 4:47 pm

DETAIL MAP - 5134350.2S



0 1/16 1/8 1/4 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
- ⚑ Sensitive Receptors
- ▨ National Priority List Sites
- ▨ Dept. Defense Sites
- ▨ Indian Reservations BIA
- ╱ Power transmission lines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▦ 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:	10625-10637 Stevens Canyon Road	CLIENT:	Applied Water Resources Corporation
ADDRESS:	10625 S Foothill Boulevard Cupertino CA 95014	CONTACT:	Janelle Amendola
		INQUIRY #:	5134350.2s
LAT/LONG:	37.313698 / 122.069071	DATE:	December 11, 2017 4:49 pm

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	0	NR	0
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		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
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								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	1	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1

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
SLIC	0.500		1	0	0	NR	NR	1
HIST LUST	0.500		0	0	1	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	1	NR	NR	1
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
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
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	1	NR	NR	NR	1
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	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
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
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
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250	1	0	1	NR	NR	NR	2
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	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
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
SAN JOSE HAZMAT	0.250		0	0	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	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		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		1	1	3	5	2	0	12

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 **Target** **Property**	**CUPERTINO BIKE SHOP** **10625 S FOOTHILL BL** **CUPERTINO, CA 95014**	**CUPA Listings**	**S118289252** **N/A**

Actual:
429 ft.

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	2202
Program Description:	GENERATES < 100 KG/YR
Latitude:	37.313654
Longitude:	-122.069127
Record ID:	PR0421230
Facility ID:	FA0279145

---

2 **ENE** **< 1/8** **0.082 mi.** **435 ft.**	**PRIVATE RESIDENCE** **PRIVATE RESIDENCE** **CUPERTINO, CA 95014**	**SLIC**	**S111239510** **N/A**

Relative:
Lower

Actual:
413 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	11/14/2011
Global Id:	T10000003039
Lead Agency:	SANTA CLARA COUNTY LOP
Lead Agency Case Number:	07S2W22B01s
Latitude:	37.3143729097336
Longitude:	-122.067246437073
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Other Petroleum
Site History:	Contaminated soil illegally dumped at this residential property. Soil impacted with petroleum hydrocarbons. Treated in place with Bio-Restoration Factor.

Click here to access the California GeoTracker records for this facility:

---

3 **ESE** **1/8-1/4** **0.184 mi.** **974 ft.**	**DEEP CLIFF GOLF COURSE** **10700 CLUBHOUSE LN** **CUPERTINO, CA 95014**	**CUPA Listings**	**S109932901** **N/A**

Relative:
Lower

Actual:
373 ft.

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	2202
Program Description:	GENERATES < 100 KG/YR
Latitude:	37.312405
Longitude:	-122.065560
Record ID:	PR0373608
Facility ID:	FA0255831

4 **NNW** **1/8-1/4** **0.188 mi.** **994 ft.**	**MARIANIST CENTER** **22622 MARIANIST WAY** **CUPERTINO, CA 95014**	**SWEEPS UST** **CA FID UST** **EMI**	**S101594551** **N/A**

Relative:
Higher

Actual:
433 ft.

SWEEPS UST:

Status: Not reported
Comp Number: 600
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: 43-012-000600-000001
Tank Status: Not reported
Capacity: 2500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 600
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: 43-012-000600-000002
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 43005657
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4082536279
Mail To: Not reported
Mailing Address: 22622 MARIANIST WAY
Mailing Address 2: Not reported
Mailing City,St,Zip: CUPERTINO 95014
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

MARIANIST CENTER (Continued) **S101594551**

EMI:

Year: 2006
County Code: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: .001
Reactive Organic Gases Tons/Yr: .0008367
Carbon Monoxide Emissions Tons/Yr: .003
NOX - Oxides of Nitrogen Tons/Yr: .027
SOX - Oxides of Sulphur Tons/Yr: .001
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smllr Tons/Yr: .000976

Year: 2007
County Code: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: .001
Reactive Organic Gases Tons/Yr: .0008367
Carbon Monoxide Emissions Tons/Yr: .003
NOX - Oxides of Nitrogen Tons/Yr: .027
SOX - Oxides of Sulphur Tons/Yr: .001
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smllr Tons/Yr: .000976

Year: 2008
County Code: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: .003
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: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA

MARIANIST CENTER (Continued) **S101594551**

SIC Code: 8051
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: 3.0000000000000001E-3
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: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: 0.001
NOX - Oxides of Nitrogen Tons/Yr: 5.0000000000000001E-3
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: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: 0.001
NOX - Oxides of Nitrogen Tons/Yr: 0.005
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: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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

MARIANIST CENTER (Continued) **S101594551**

Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0.002
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: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: 0.002
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: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: 0.000119188
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.000240677
NOX - Oxides of Nitrogen Tons/Yr: 0.002059965
SOX - Oxides of Sulphur Tons/Yr: 2.654e-006
Particulate Matter Tons/Yr: 0.000117409
Part. Matter 10 Micrometers and Smllr Tons/Yr:0.000112712

Year: 2015
County Code: 43
Air Basin: SF
Facility ID: 17797
Air District Name: BA
SIC Code: 8051
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: 0.000119188
Reactive Organic Gases Tons/Yr: 0.000108305
Carbon Monoxide Emissions Tons/Yr: 0.000240677
NOX - Oxides of Nitrogen Tons/Yr: 0.002059965
SOX - Oxides of Sulphur Tons/Yr: 2.654e-006
Particulate Matter Tons/Yr: 0.000117409
Part. Matter 10 Micrometers and Smllr Tons/Yr:0.000112712

5
East
1/4-1/2
0.476 mi.
2512 ft.

TRESSLER PROPERTY
22110 MCCLELLAN
CUPERTINO, CA 95014

LUST
HIST LUST
HIST CORTESE

S102563431
N/A

Relative:
Lower

Actual:
372 ft.

LUST:
Lead Agency: SANTA CLARA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608501985
Global Id: T0608501985
Latitude: 37.3135269
Longitude: -122.0608993
Status: Completed - Case Closed
Status Date: 03/12/1997
Case Worker: UST
RB Case Number: Not reported
Local Agency: SANTA CLARA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

LUST:
Global Id: T0608501985
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

Global Id: T0608501985
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

LUST:
Global Id: T0608501985
Action Type: ENFORCEMENT
Date: 03/12/1997
Action: Closure/No Further Action Letter

Global Id: T0608501985
Action Type: Other
Date: 02/10/1997
Action: Leak Reported

Global Id: T0608501985
Action Type: RESPONSE
Date: 03/12/1997
Action: Other Report / Document

TRESSLER PROPERTY (Continued) **S102563431**

LUST:
Global Id: T0608501985
Status: Completed - Case Closed
Status Date: 03/12/1997

Global Id: T0608501985
Status: Open - Case Begin Date
Status Date: 02/10/1997

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 07S2W22A01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
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

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 07S2W22A01F
Date Closed: 03/12/1997
EDR Link ID: 07S2W22A01F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 07S2W22A01
Oversite Agency: SCVWD
Date Listed: 1997-02-10 00:00:00
Closed Date: 1997-03-12 00:00:00

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-2161

6 **NE** **1/4-1/2** **0.494 mi.** **2608 ft.**	**BLACKBERRY FARM PLAY AREA** **21979 SAN FERNANDO DRIVE** **CUPERTINO, CA 95014**	**ENVIROSTOR** **VCP** **CUPA Listings**	**S109424762** **N/A**

Relative:
Lower

Actual:
321 ft.

ENVIROSTOR:
Facility ID: 60001205
Status: No Further Action
Status Date: 11/10/2009
Site Code: Not reported
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 0.08
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Mark Piros
Supervisor: Barbara Cook
Division Branch: Cleanup Berkeley
Assembly: 28
Senate: 15
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.31610
Longitude: -122.0610
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD
Potential COC: DDE DDT Lead Toxaphene
Confirmed COC: Toxaphene Lead DDE DDT
Potential Description: SOIL
Alias Name: Captain Stevens Play Area
Alias Type: Alternate Name
Alias Name: 60001205
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/10/2009
Comments: Soil samples were collected from within the footprint of a proposed play area and analyzed for organochlorine pesticides and metals because of the possible historical use of a nearby parcel for agricultural use. There were some exceedances of human health risk-based screening levels for lead and toxaphene. In May 2009, approximately 72 cubic yards of soil was excavated to address the locations where there were exceedances of screeening levels and the excavated soil was disposed at a permitted, off-site Class II landfill. The Soil Removal Completion Report presents the results of soil sampling and documents the soil removal. DTSC issued a no further action letter to the City of Cupertino based on the information presented in the Report and determined that the proposed play area has been made suitable for unrestricted use.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported

BLACKBERRY FARM PLAY AREA (Continued) **S109424762**

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:	60001205
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	0.08
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Mark Piros
Supervisor:	Barbara Cook
Division Branch:	Cleanup Berkeley
Site Code:	Not reported
Assembly:	28
Senate:	15
Special Programs Code:	Not reported
Status:	No Further Action
Status Date:	11/10/2009
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	37.31610 / -122.0610
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	30007, 30008, 30013, 30023
Confirmed COC:	30023,30013,30007,30008
Potential Description:	SOIL
Alias Name:	Captain Stevens Play Area
Alias Type:	Alternate Name
Alias Name:	60001205
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	11/10/2009
Comments:	Soil samples were collected from within the footprint of a proposed play area and analyzed for organochlorine pesticides and metals because of the possible historical use of a nearby parcel for agricultural use. There were some exceedances of human health risk-based screening levels for lead and toxaphene. In May 2009, approximately 72 cubic yards of soil was excavated to address the locations where there were exceedances of screeening levels and the excavated soil was disposed at a permitted, off-site Class II landfill. The Soil Removal Completion Report presents the results of soil sampling and documents the soil removal. DTSC issued a no further action letter to the City of Cupertino based on the information presented in the Report and determined that the proposed play area has been made suitable for unrestricted use.

BLACKBERRY FARM PLAY AREA (Continued) **S109424762**

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

CUPA SANTA CLARA:

Region:	SANTA CLARA
PE#:	2202
Program Description:	GENERATES < 100 KG/YR
Latitude:	37.318049
Longitude:	-122.059203
Record ID:	PR0367175
Facility ID:	FA0200965

---

7 **North** **1/2-1** **0.641 mi.** **3385 ft.**	**ARCO SERVICE STATION #6182** **10121 NORTH FOOTHILL BOUL** **CUPERTINO, CA 93043**	**Notify 65**	**S100178856** **N/A**

Relative:
Lower

Actual:
384 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

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8 **NW** **1/2-1** **0.668 mi.** **3527 ft.**	**KAISER ALUMINUM & CHEM CORP (F** **23333 STEVENS CREEK BLVD, PERM** **CUPERTINO, CA 95014**	**ENVIROSTOR** **SLIC** **EMI** **HIST CORTESE**	**S100538975** **N/A**

Relative:
Lower

Actual:
406 ft.

ENVIROSTOR:

Facility ID:	43330001
Status:	Refer: RWQCB
Status Date:	04/28/1989
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:	15

KAISER ALUMINUM & CHEM CORP (F (Continued) **S100538975**

Special Program:	* CERC2
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.32013
Longitude:	-122.0877
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* HYDROCARBON SOLVENTS Polychlorinated biphenyls (PCBs
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD009155284
Alias Type:	EPA Identification Number
Alias Name:	CAD982358087
Alias Type:	EPA Identification Number
Alias Name:	110011654584
Alias Type:	EPA (FRS #)
Alias Name:	T0608501786
Alias Type:	GeoTracker Global ID
Alias Name:	T0608502292
Alias Type:	GeoTracker Global ID
Alias Name:	T0608591666
Alias Type:	GeoTracker Global ID
Alias Name:	43330001
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	04/28/1989
Comments:	PRELIM ASSESS DONE RWQCB IS LEAD AGENCY, THEREFORE, PENDING STATUS

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	06/09/1987
Comments:	SITE SCREENING DONE PA RECOM DUE TO DOCUMENTED HAZARDOUS CHEMICALS ON SITE

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	01/01/1986
Comments:	Further action recommended

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	10/28/1987
Comments:	Further Action Recommended

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment/Site Inspection Report (PA/SI)
Completed Date:	08/27/1990
Comments:	Further Action Required

KAISER ALUMINUM & CHEM CORP (F (Continued) **S100538975**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 10/21/1983
Comments: Further Action Required

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 11/15/1981
Comments: FACILITY IDENTIFIED ID’D FROM ASP FILES

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

SLIC REG 2:
Region: 2
Facility ID: 43S0663
Facility Status: Pollution Characterization
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: 7/31/1987
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

EMI:
Year: 1987
County Code: 43
Air Basin: SF
Facility ID: 228
Air District Name: BA
SIC Code: 3353
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: 416
Reactive Organic Gases Tons/Yr: 410
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 1
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

KAISER ALUMINUM & CHEM CORP (F (Continued) **S100538975**

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-0770

Count: 4 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CUPERTINO	U001600987	FRANCISCO A SERRANO	10550 DE ANZA BLVD	95014	LUST, HIST LUST, HIST UST
SANTA CLARA COUNTY	1023301799	STEVENS CANYON ROAD BRIDGE 37C0604	STEVENS CANYON		FINDS
SANTA CLARA COUNTY	1023297336	BRIDGE 37C0571 OVER STEVENS CREEK	STEVENS CANYON		FINDS
SANTA CLARA COUNTY	1023286739	STEVENS CANYON ROAD BRIDGE 37C0605	STEVENS CANYON		FINDS

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: 05/30/2017
Date Data Arrived at EDR: 06/08/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 99

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

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: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/06/2017
Next Scheduled EDR Contact: 01/15/2018
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: 07/11/2017
Date Data Arrived at EDR: 07/21/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 77

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/29/2018
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: 07/11/2017
Date Data Arrived at EDR: 07/28/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 70

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/29/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 09/13/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 10

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2017
Next Scheduled EDR Contact: 02/26/2018
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: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
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: 08/10/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/27/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/18/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 11/13/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 23

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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 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 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 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 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: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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

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

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

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: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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	Source: California Regional Water Quality Control Board, North Coast Region (1)
Date Data Arrived at EDR: 04/07/2003	Telephone: 707-576-2220
Date Made Active in Reports: 04/25/2003	Last EDR Contact: 08/01/2011
Number of Days to Update: 18	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	Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-286-0457
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	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	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/18/2006	Telephone: 805-549-3147
Date Made Active in Reports: 06/15/2006	Last EDR Contact: 07/18/2011
Number of Days to Update: 28	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	Source: Region Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 11/18/2004	Telephone: 213-576-6600
Date Made Active in Reports: 01/04/2005	Last EDR Contact: 07/01/2011
Number of Days to Update: 47	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	Source: Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 04/05/2005	Telephone: 916-464-3291
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 16	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	Source: Regional Water Quality Control Board, Victorville Branch
Date Data Arrived at EDR: 05/25/2005	Telephone: 619-241-6583
Date Made Active in Reports: 06/16/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 22	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: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 57

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

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: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 09/21/2017	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/21/2017	Telephone: 916-323-7905
Date Made Active in Reports: 11/09/2017	Last EDR Contact: 09/21/2017
Number of Days to Update: 49	Next Scheduled EDR Contact: 01/08/2018
	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: 08/21/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/20/2017	Telephone: 202-566-2777
Date Made Active in Reports: 12/08/2017	Last EDR Contact: 09/20/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/01/2018
	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 11/06/2017
Number of Days to Update: 30	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/11/2017	Source: Department of Conservation
Date Data Arrived at EDR: 09/12/2017	Telephone: 916-323-3836
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 09/12/2017
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/25/2017
	Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 05/31/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 76

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/26/2018
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: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

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

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: 10/20/2017
Next Scheduled EDR Contact: 02/05/2018
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: 11/03/2017
Next Scheduled EDR Contact: 02/12/2018
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: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
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: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
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

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: 07/13/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 30

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: Quarterly

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: 06/02/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 80

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
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

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: 08/31/2017
Date Data Arrived at EDR: 09/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/30/2017
Next Scheduled EDR Contact: 03/19/2018
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: 07/11/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/05/2018
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: 09/05/2017	Source: DTSC and SWRCB
Date Data Arrived at EDR: 09/06/2017	Telephone: 916-323-3400
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 12/05/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 03/19/2018
	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: 09/21/2017	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 09/21/2017	Telephone: 202-366-4555
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 09/21/2017
Number of Days to Update: 22	Next Scheduled EDR Contact: 01/08/2018
	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: 05/09/2017	Source: Office of Emergency Services
Date Data Arrived at EDR: 07/26/2017	Telephone: 916-845-8400
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 57	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

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: 09/11/2017	Source: State Water Qualilty Control Board
Date Data Arrived at EDR: 09/12/2017	Telephone: 866-480-1028
Date Made Active in Reports: 11/09/2017	Last EDR Contact: 09/12/2017
Number of Days to Update: 58	Next Scheduled EDR Contact: 12/25/2017
	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: 09/11/2017	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/12/2017	Telephone: 866-480-1028
Date Made Active in Reports: 11/09/2017	Last EDR Contact: 09/12/2017
Number of Days to Update: 58	Next Scheduled EDR Contact: 12/25/2017
	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	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	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: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: (415) 495-8895
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	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	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 11/22/2017
Number of Days to Update: 97	Next Scheduled EDR Contact: 03/05/2018
	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	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/13/2017
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/22/2018
	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	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2017
Number of Days to Update: 339	Next Scheduled EDR Contact: 01/22/2018
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 11/17/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/26/2018
	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: 10/17/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/01/2017	Telephone: 202-566-1917
Date Made Active in Reports: 12/08/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 01/08/2018
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 11/06/2017
Number of Days to Update: 88	Next Scheduled EDR Contact: 02/19/2018
	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: 04/22/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2015	Telephone: 703-308-4044
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 11/09/2017
Number of Days to Update: 6	Next Scheduled EDR Contact: 02/19/2018
	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: 12/31/2012	Source: EPA
Date Data Arrived at EDR: 01/15/2015	Telephone: 202-260-5521
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 09/22/2017
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/01/2018
	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: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
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: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
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: 09/27/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
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: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/03/2017
Number of Days to Update: 3	Next Scheduled EDR Contact: 02/19/2018
	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: 06/01/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: 202-566-0500
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/13/2017
Number of Days to Update: 126	Next Scheduled EDR Contact: 01/22/2018
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 10/11/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/22/2018
	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	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	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	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	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	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 10/16/2017
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/20/2017
	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: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
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: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
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: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/26/2017
Next Scheduled EDR Contact: 02/05/2018
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: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/15/2018
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: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

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: 06/30/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
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: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
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: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
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: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/02/2017
Next Scheduled EDR Contact: 02/19/2018
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: 11/22/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
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: 07/31/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/28/2017
Next Scheduled EDR Contact: 03/12/2018
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	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 12/01/2017
Number of Days to Update: 49	Next Scheduled EDR Contact: 03/12/2018
	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	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 12/01/2017
Number of Days to Update: 97	Next Scheduled EDR Contact: 03/12/2018
	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: 09/25/2017	Source: Department of Interior
Date Data Arrived at EDR: 09/26/2017	Telephone: 202-208-2609
Date Made Active in Reports: 10/20/2017	Last EDR Contact: 12/06/2017
Number of Days to Update: 24	Next Scheduled EDR Contact: 03/26/2018
	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: 07/23/2017	Source: EPA
Date Data Arrived at EDR: 09/06/2017	Telephone: (415) 947-8000
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 12/05/2017
Number of Days to Update: 9	Next Scheduled EDR Contact: 03/19/2018
	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: 09/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/06/2017	Telephone: 202-564-2280
Date Made Active in Reports: 10/20/2017	Last EDR Contact: 12/05/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 03/19/2018
	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: 02/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/15/2017	Telephone: 202-564-0527
Date Made Active in Reports: 11/03/2017	Last EDR Contact: 11/21/2017
Number of Days to Update: 261	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 133

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
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: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
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: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Quarterly

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: 08/02/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 11/30/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
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: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 34

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/21/2017
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
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: 08/15/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/26/2018
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: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/21/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
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: 08/21/2017	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/22/2017	Telephone: 916-323-3400
Date Made Active in Reports: 10/25/2017	Last EDR Contact: 11/20/2017
Number of Days to Update: 64	Next Scheduled EDR Contact: 03/05/2018
	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: 10/10/2017	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/10/2017	Telephone: 916-440-7145
Date Made Active in Reports: 10/17/2017	Last EDR Contact: 10/10/2017
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/22/2018
	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: 09/11/2017	Source: Department of Conservation
Date Data Arrived at EDR: 09/12/2017	Telephone: 916-322-1080
Date Made Active in Reports: 11/01/2017	Last EDR Contact: 09/12/2017
Number of Days to Update: 50	Next Scheduled EDR Contact: 12/25/2017
	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: 09/01/2017	Source: Department of Public Health
Date Data Arrived at EDR: 09/06/2017	Telephone: 916-558-1784
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 12/05/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 03/19/2018
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/13/2017	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/14/2017	Telephone: 916-445-9379
Date Made Active in Reports: 12/07/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 23	Next Scheduled EDR Contact: 02/26/2018
	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: 09/05/2017	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 09/06/2017	Telephone: 916-445-4038
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 12/05/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 03/19/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/11/2017	Source: Department of Conservation
Date Data Arrived at EDR: 09/12/2017	Telephone: 916-323-3836
Date Made Active in Reports: 10/18/2017	Last EDR Contact: 09/12/2017
Number of Days to Update: 36	Next Scheduled EDR Contact: 12/25/2017
	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: 06/16/2017	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2017	Telephone: 916-445-3846
Date Made Active in Reports: 10/17/2017	Last EDR Contact: 09/18/2017
Number of Days to Update: 119	Next Scheduled EDR Contact: 01/01/2018
	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: 01/20/2017	Source: Deaprtment of Conservation
Date Data Arrived at EDR: 03/14/2017	Telephone: 916-445-2408
Date Made Active in Reports: 05/03/2017	Last EDR Contact: 09/12/2017
Number of Days to Update: 50	Next Scheduled EDR Contact: 12/25/2017
	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 board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 04/17/2015	Telephone: 559-445-5577
Date Made Active in Reports: 06/23/2015	Last EDR Contact: 10/13/2017
Number of Days to Update: 67	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 11/14/2017
Number of Days to Update: 9	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Quarterly

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	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 09/25/2017
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/08/2018
	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	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

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: 09/22/2017	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 09/22/2017	Telephone: 510-567-6700
Date Made Active in Reports: 10/10/2017	Last EDR Contact: 09/21/2017
Number of Days to Update: 18	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/11/2017	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 10/12/2017	Telephone: 510-567-6700
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 10/10/2017
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/24/2047
	Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 09/13/2017	Source: Amador County Environmental Health
Date Data Arrived at EDR: 09/15/2017	Telephone: 209-223-6439
Date Made Active in Reports: 11/14/2017	Last EDR Contact: 11/30/2017
Number of Days to Update: 60	Next Scheduled EDR Contact: 03/19/2018
	Data Release Frequency: Varies

BUTTE COUNTY:

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: 09/18/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 08/31/2017
Date Data Arrived at EDR: 09/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 64

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/05/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 10/31/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 13

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/18/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 63

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

FRESNO COUNTY:

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: 10/03/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 40

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/25/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 19

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 22

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017	Source: Inyo County Environmental Health Services
Date Data Arrived at EDR: 06/09/2017	Telephone: 760-878-0238
Date Made Active in Reports: 08/04/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 56	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/07/2017	Source: Kern County Environment Health Services Department
Date Data Arrived at EDR: 08/08/2017	Telephone: 661-862-8700
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Quarterly

KINGS COUNTY:

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: 09/22/2017	Source: Kings County Department of Public Health
Date Data Arrived at EDR: 09/22/2017	Telephone: 559-584-1411
Date Made Active in Reports: 10/16/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 24	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 11/09/2017	Source: Lake County Environmental Health
Date Data Arrived at EDR: 11/10/2017	Telephone: 707-263-1164
Date Made Active in Reports: 11/15/2017	Last EDR Contact: 10/16/2017
Number of Days to Update: 5	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 07/24/2017	Source: Lassen County Environmental Health
Date Data Arrived at EDR: 07/26/2017	Telephone: 530-251-8528
Date Made Active in Reports: 10/16/2017	Last EDR Contact: 10/23/2017
Number of Days to Update: 82	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009	Source: EPA Region 9
Date Data Arrived at EDR: 03/31/2009	Telephone: 415-972-3178
Date Made Active in Reports: 10/23/2009	Last EDR Contact: 09/18/2017
Number of Days to Update: 206	Next Scheduled EDR Contact: 01/01/2018
	Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/11/2017	Source: Department of Public Works
Date Data Arrived at EDR: 10/12/2017	Telephone: 626-458-3517
Date Made Active in Reports: 10/17/2017	Last EDR Contact: 10/10/2017
Number of Days to Update: 5	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/16/2017	Source: La County Department of Public Works
Date Data Arrived at EDR: 10/17/2017	Telephone: 818-458-5185
Date Made Active in Reports: 12/07/2017	Last EDR Contact: 10/17/2017
Number of Days to Update: 51	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017	Source: Engineering & Construction Division
Date Data Arrived at EDR: 04/21/2017	Telephone: 213-473-7869
Date Made Active in Reports: 10/09/2017	Last EDR Contact: 10/16/2017
Number of Days to Update: 171	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 06/21/2017	Source: Community Health Services
Date Data Arrived at EDR: 06/23/2017	Telephone: 323-890-7806
Date Made Active in Reports: 10/30/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 129	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 10/16/2017
Number of Days to Update: 21	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Semi-Annually

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	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 03/10/2017	Telephone: 562-570-2563
Date Made Active in Reports: 05/03/2017	Last EDR Contact: 10/23/2017
Number of Days to Update: 54	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/11/2017	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 07/14/2017	Telephone: 310-618-2973
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 10/10/2017
Number of Days to Update: 69	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

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: 10/26/2017	Source: Madera County Environmental Health
Date Data Arrived at EDR: 10/27/2017	Telephone: 559-675-7823
Date Made Active in Reports: 11/06/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 09/28/2017	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/05/2017	Telephone: 415-473-6647
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 09/27/2017
Number of Days to Update: 34	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 10/02/2017	Source: Merced County Environmental Health
Date Data Arrived at EDR: 10/03/2017	Telephone: 209-381-1094
Date Made Active in Reports: 10/17/2017	Last EDR Contact: 11/30/2017
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 08/08/2017	Source: Mono County Health Department
Date Data Arrived at EDR: 09/06/2017	Telephone: 760-932-5580
Date Made Active in Reports: 10/16/2017	Last EDR Contact: 11/21/2017
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/15/2017
Date Made Active in Reports: 11/28/2017
Number of Days to Update: 74

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/20/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

NAPA COUNTY:

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: 11/21/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 08/24/2017
Date Data Arrived at EDR: 08/25/2017
Date Made Active in Reports: 10/27/2017
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/21/2017
Next Scheduled EDR Contact: 03/12/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 8

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/09/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/11/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/07/2017	Source: Health Care Agency
Date Data Arrived at EDR: 08/09/2017	Telephone: 714-834-3446
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 11/07/2017
Number of Days to Update: 43	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/05/2017	Source: Placer County Health and Human Services
Date Data Arrived at EDR: 09/06/2017	Telephone: 530-745-2363
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 11/30/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 03/19/2018
	Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 10/23/2017	Source: Plumas County Environmental Health
Date Data Arrived at EDR: 11/03/2017	Telephone: 530-283-6355
Date Made Active in Reports: 11/15/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 12	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/11/2017	Source: Department of Environmental Health
Date Data Arrived at EDR: 10/12/2017	Telephone: 951-358-5055
Date Made Active in Reports: 11/09/2017	Last EDR Contact: 09/18/2017
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/01/2018
	Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/12/2017	Source: Department of Environmental Health
Date Data Arrived at EDR: 10/12/2017	Telephone: 951-358-5055
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 09/18/2017
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/01/2018
	Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/02/2017	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 10/03/2017	Telephone: 916-875-8406
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/03/2017
Number of Days to Update: 3	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

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: 08/02/2017	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 10/03/2017	Telephone: 916-875-8406
Date Made Active in Reports: 11/16/2017	Last EDR Contact: 10/03/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017	Source: San Benito County Environmental Health
Date Data Arrived at EDR: 11/03/2017	Telephone: N/A
Date Made Active in Reports: 11/17/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 14	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

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: 08/31/2017	Source: San Bernardino County Fire Department Hazardous Materials Division
Date Data Arrived at EDR: 09/19/2017	Telephone: 909-387-3041
Date Made Active in Reports: 11/16/2017	Last EDR Contact: 11/06/2017
Number of Days to Update: 58	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 09/05/2017	Source: Hazardous Materials Management Division
Date Data Arrived at EDR: 09/06/2017	Telephone: 619-338-2268
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 12/05/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 03/19/2018
	Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

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: 11/29/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

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: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/03/2017
Date Data Arrived at EDR: 05/08/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 109

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 10/03/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 10/10/2017
Number of Days to Update: 4

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 08/28/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/18/2017
Date Data Arrived at EDR: 08/22/2017
Date Made Active in Reports: 10/25/2017
Number of Days to Update: 64

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 09/15/2017	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 09/19/2017	Telephone: 650-363-1921
Date Made Active in Reports: 10/17/2017	Last EDR Contact: 12/06/2017
Number of Days to Update: 28	Next Scheduled EDR Contact: 03/26/2018
	Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/15/2017	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 09/19/2017	Telephone: 650-363-1921
Date Made Active in Reports: 11/09/2017	Last EDR Contact: 12/06/2017
Number of Days to Update: 51	Next Scheduled EDR Contact: 03/26/2018
	Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011	Source: Santa Barbara County Public Health Department
Date Data Arrived at EDR: 09/09/2011	Telephone: 805-686-8167
Date Made Active in Reports: 10/07/2011	Last EDR Contact: 12/01/2017
Number of Days to Update: 28	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 08/07/2017	Source: Department of Environmental Health
Date Data Arrived at EDR: 08/10/2017	Telephone: 408-918-1973
Date Made Active in Reports: 10/16/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 67	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Varies

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	Source: Santa Clara Valley Water District
Date Data Arrived at EDR: 03/30/2005	Telephone: 408-265-2600
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 03/23/2009
Number of Days to Update: 22	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014	Source: Department of Environmental Health
Date Data Arrived at EDR: 03/05/2014	Telephone: 408-918-3417
Date Made Active in Reports: 03/18/2014	Last EDR Contact: 11/21/2017
Number of Days to Update: 13	Next Scheduled EDR Contact: 03/12/2018
	Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

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: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

SHASTA COUNTY:

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: 11/14/2017
Next Scheduled EDR Contact: 03/05/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 09/27/2017
Date Made Active in Reports: 11/10/2017
Number of Days to Update: 44

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 09/27/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 42

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

Date of Government Version: 09/25/2017	Source: County of Sonoma Fire & Emergency Services Department
Date Data Arrived at EDR: 09/27/2017	Telephone: 707-565-1174
Date Made Active in Reports: 11/16/2017	Last EDR Contact: 09/25/2017
Number of Days to Update: 50	Next Scheduled EDR Contact: 01/01/2018
	Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/03/2017	Source: Department of Health Services
Date Data Arrived at EDR: 10/06/2017	Telephone: 707-565-6565
Date Made Active in Reports: 11/10/2017	Last EDR Contact: 09/25/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017	Source: Stanislaus County Department of Ennvironmental Protection
Date Data Arrived at EDR: 11/10/2017	Telephone: 209-525-6751
Date Made Active in Reports: 11/16/2017	Last EDR Contact: 10/16/2017
Number of Days to Update: 6	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 08/31/2017	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 09/05/2017	Telephone: 530-822-7500
Date Made Active in Reports: 11/08/2017	Last EDR Contact: 12/01/2017
Number of Days to Update: 64	Next Scheduled EDR Contact: 03/19/2018
	Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 07/19/2017	Source: Tehama County Department of Environmental Health
Date Data Arrived at EDR: 08/11/2017	Telephone: 530-527-8020
Date Made Active in Reports: 10/16/2017	Last EDR Contact: 11/14/2017
Number of Days to Update: 66	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/23/2017	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/24/2017	Telephone: 760-352-0381
Date Made Active in Reports: 11/16/2017	Last EDR Contact: 10/23/2017
Number of Days to Update: 23	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List

Cupa program facilities

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 18

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 12/01/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/24/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 22

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

VENTURA COUNTY:

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: 09/26/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 43

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Quarterly

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: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Annually

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: 11/08/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Quarterly

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: 09/26/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 43

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/28/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 9

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 10/02/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 43

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/08/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 6

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/25/2017
Next Scheduled EDR Contact: 02/12/2018
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: 07/28/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 88

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2017
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/22/2018
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: 10/01/2017	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 11/01/2017	Telephone: 518-402-8651
Date Made Active in Reports: 11/13/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 12	Next Scheduled EDR Contact: 02/12/2018
	Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/25/2017	Telephone: 717-783-8990
Date Made Active in Reports: 09/25/2017	Last EDR Contact: 10/16/2017
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013	Source: Department of Environmental Management
Date Data Arrived at EDR: 06/19/2015	Telephone: 401-222-2797
Date Made Active in Reports: 07/15/2015	Last EDR Contact: 11/16/2017
Number of Days to Update: 26	Next Scheduled EDR Contact: 03/05/2018
	Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016	Source: Department of Natural Resources
Date Data Arrived at EDR: 04/13/2017	Telephone: N/A
Date Made Active in Reports: 07/14/2017	Last EDR Contact: 09/11/2017
Number of Days to Update: 92	Next Scheduled EDR Contact: 12/25/2017
	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 & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

10625-10637 STEVENS CANYON ROAD
10625 S FOOTHILL BOULEVARD
CUPERTINO, CA 95014

TARGET PROPERTY COORDINATES

Latitude (North):	37.313698 - 37˚ 18’ 49.31’’
Longitude (West):	122.069071 - 122˚ 4’ 8.66’’
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	582491.9
UTM Y (Meters):	4129875.0
Elevation:	429 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640178 CUPERTINO, 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 principal 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).

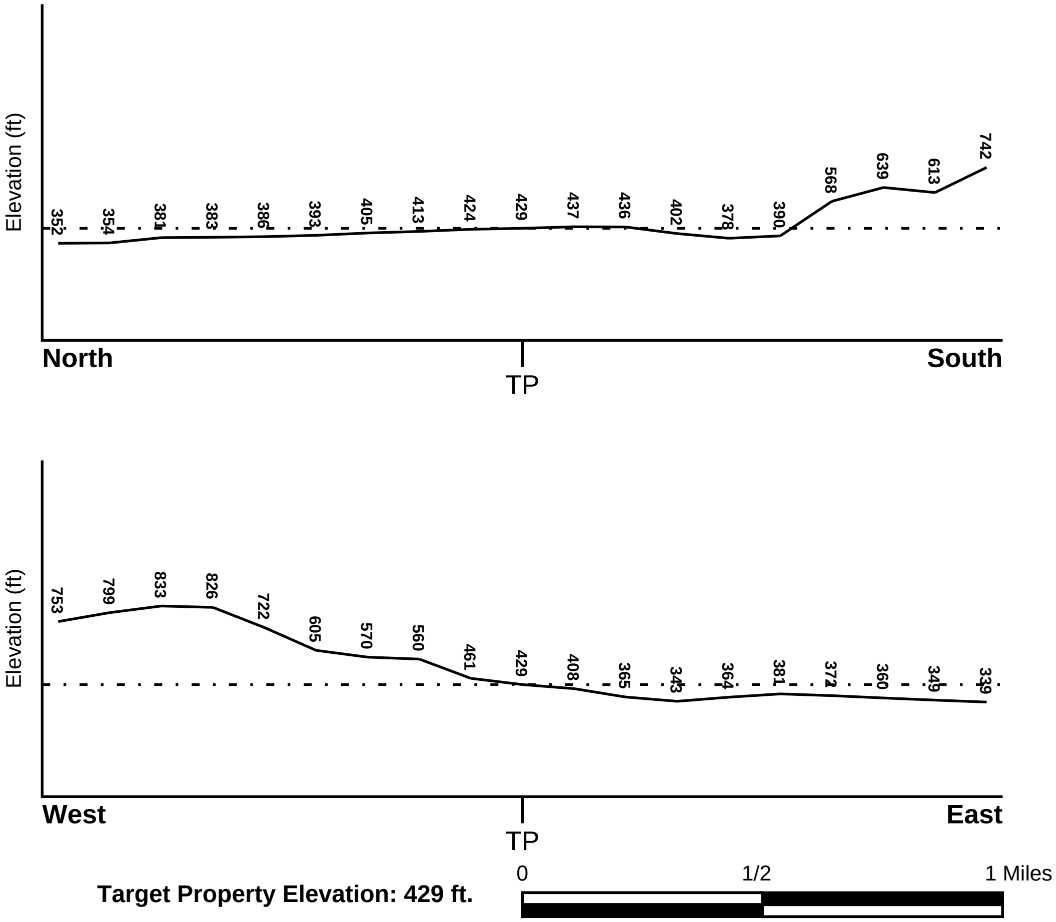
TOPOGRAPHIC INFORMATION

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 East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 429 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
06085C0204H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06085C0208H	FEMA FIRM Flood data
06085C0212H	FEMA FIRM Flood data
06085C0216H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CUPERTINO	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
Not Reported		

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* ©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

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: Tertiary
Series: Pliocene
Code: Tpc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

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).

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. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

Soil Layer Information

	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:	gravelly - loam clay
Surficial Soil Types:	gravelly - loam clay
Shallow Soil Types:	clay loam clay
Deeper Soil Types:	unweathered bedrock

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.

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
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

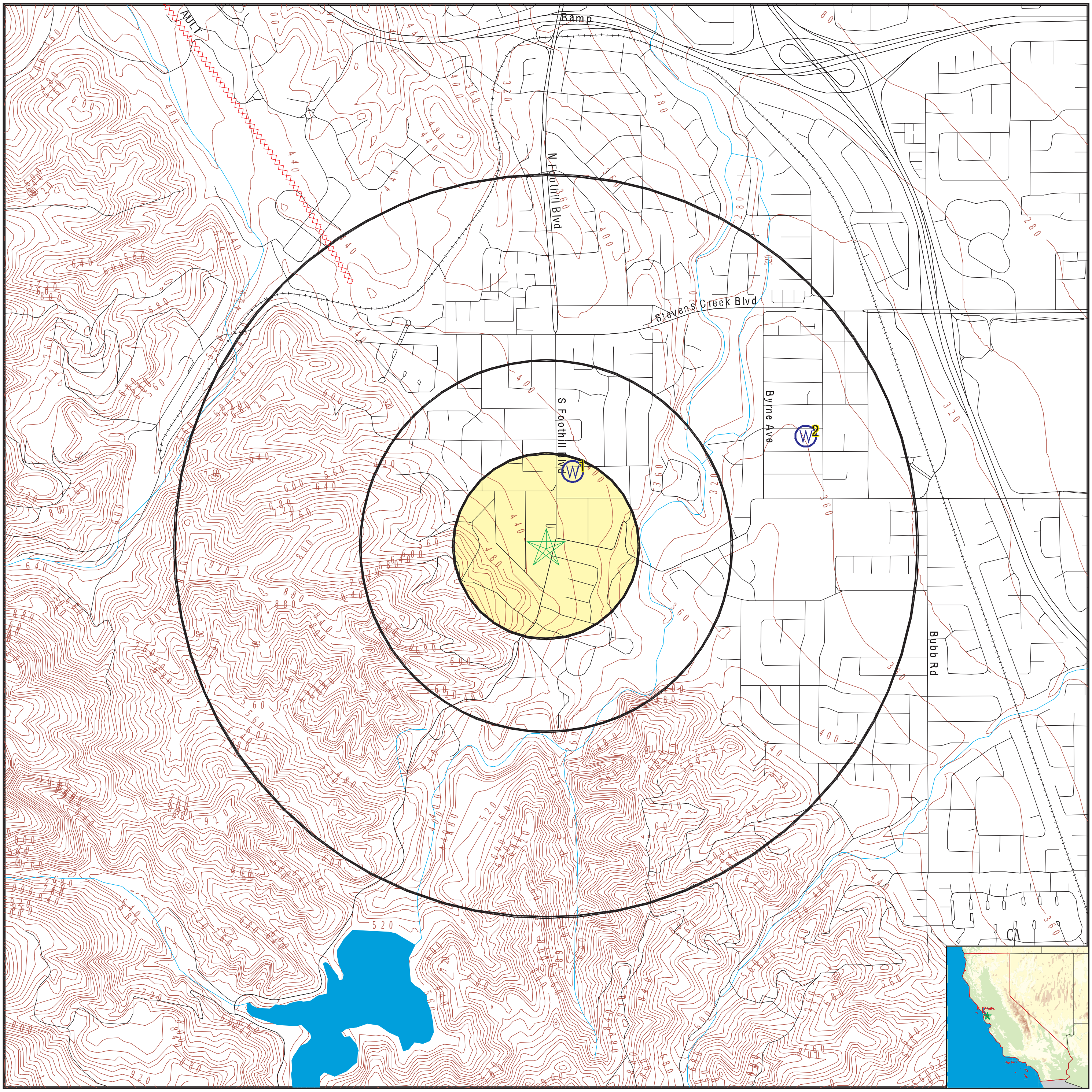
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	7851	1/8 - 1/4 Mile NNE
2	7847	1/2 - 1 Mile ENE

PHYSICAL SETTING SOURCE MAP - 5134350.2s



- 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: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino CA 95014
LAT/LONG: 37.313698 / 122.069071

CLIENT: Applied Water Resources Corporation
CONTACT: Janelle Amendola
INQUIRY #: 5134350.2s
DATE: December 11, 2017 4:49 pm

Map ID
Direction
Distance
Elevation
Database EDR ID Number

1
NNE
1/8 - 1/4 Mile
Lower
CA WELLS **7851**

Water System Information:

Prime Station Code:	07S/02W-22A01 M	User ID:	HEN
FRDS Number:	4310018004	County:	Santa Clara
District Number:	05	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY/G
Water Type:	Well/Groundwater	Well Status:	Abandoned
Source Lat/Long:	371900.0 1220400.0	Precision:	Undefined
Source Name:	PIPE GALLERY WELL 01 - ABANDONED		
System Number:	4310018		
System Name:	City of Cupertino		
Organization That Operates System:	10300 TORRE AVE CUPERTINO, CA 95014		
Pop Served:	18200	Connections:	4199
Area Served:	CUPERTINO		

2
ENE
1/2 - 1 Mile
Lower
CA WELLS **7847**

Water System Information:

Prime Station Code:	07S/02W-15R01 M	User ID:	43C
FRDS Number:	4300751001	County:	Santa Clara
District Number:	73	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	371905.0 1220319.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	4300751		
System Name:	BLACKBERRY FARMS		
Organization That Operates System:	21975 SAN FERNANDO AVE. CUPERTINO, CA 95014		
Pop Served:	3600	Connections:	1
Area Served:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95014	47	0

Federal EPA Radon Zone for SANTA CLARA 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 Zip Code: 95014

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.267 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

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 & Game
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.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
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.

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

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

APPENDIX D
Resumes

1046 West Taylor Street, Suite 105, San Jose, CA
408.402-2238

Janelle Amendola

Project Manager

Ms. Amendola has more than 20 years of diverse environmental and engineering consulting experience, and extensive skills conducting and managing numerous concurrent and varied projects for diverse public and private sector clients. Ms. Amendola's specific areas of expertise and experience include Phase I Environmental Site Assessments, Phase II Environmental Site Assessments, soil and ground water contamination investigation and remediation, soil gas and vapor intrusion investigations, environmental regulatory compliance, storm water pollution prevention planning and sampling, hazardous materials compliance, air emissions permitting, underground storage tank removals, NEPA and state-equivalent programs, SPCC plan preparation, annual and biennial reporting, industrial wastewater permitting and monitoring programs, NPDES permits, hazardous materials business plans, environmental due diligence, property condition assessments, soil and ground water contamination investigation, geotechnical engineering, construction inspections, brownfields redevelopment, and project management/coordination.

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SELECTED PHASE I AND PHASE II PROJECT EXPERIENCE

City of San Carlos, San Carlos, CA

Ms. Amendola conducted a Phase I Environmental Site Assessment on behalf of the City of San Carlos for three adjacent formerly industrial parcels in preparation of property acquisition and resale for commercial redevelopment. A chlorinated solvent release was previously investigated and closed at the site, but our assessment showed the concentrations of chlorinated solvents remaining at the site significantly exceeded current health standards for potential vapor intrusion. Ms. Amendola conducted multiple stages of Phase II investigations to define the nature and extent of the soil, soil vapor, and groundwater contamination. All work was performed under the guidance of the San Mateo County Department of Environmental Health (DEH). Upon completion of the investigations a remedial action plan (RAP) using enhanced bioremediation was submitted to the County and approved. The RAP was implemented and groundwater monitoring is currently being performed to document the effectiveness of the RAP.

Bradford Manufacturing, Santa Clara, CA

Ms. Amendola conducted a Phase I Environmental Site Assessment on five contiguous industrial parcels at which numerous releases were known to have occurred and varying amount of previous investigation had been conducted. AWR conducted multiple stages of Phase II investigations at the site under the direction and approval of the Department of Toxic Substance Control (DTSC) to define the nature and extent of the impacts, evaluate groundwater impacts, and prepare a remedial action plan that was approved by the DTSC. Ms. Amendola oversaw the removal of impacted soil and groundwater monitoring, culminating in the receipt of a no further action letter from the DTSC.

City of Osseo, Osseo, MN

Ms. Amendola conducted a Phase I and Phase II Environmental Site Assessment of a former salvage yard in Osseo, Minnesota, successfully prepared financial grant applications funding the majority of the investigation and remediation costs for the site, developed and implemented a remediation plan, worked closely with state and local agencies throughout the remediation, conducted a geotechnical investigation, and oversaw the construction testing for the construction of a new office building at the site.

Suncap Property Group, Redwood City, CA

Ms. Amendola conducted a Phase I Environmental Site Assessment for the previous owner of a formerly industrial property. Ms. Amendola then worked with the prospective property purchaser to implement multiple stages of Phase II investigations to evaluate environmental issues identified in the Phase I ESA under the direction and approval of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The investigation led to Ms. Amendola preparing and overseeing the implementation of the remedial action workplan (RAW), culminating in receiving case closure from the RWQCB and the successful redevelopment of the site.

Santa Cruz County Department of Public Works, Santa Cruz, CA

Ms. Amendola conducted site investigation and remediation to evaluate and remediate a clarifier release at the Department of Public Works storage yard that impacted surface soils and also entered the onsite storm water management system and subsequently discharged elsewhere on the same property.

San Jose Unified School District, San Jose, CA

The site action was additional evaluation for the property owner to further evaluate the extent of a release and obtain formal closure for a known historical release that had only been informally investigated and remediated with no agency involvement or approvals. The specific work included Phase II investigations under the direction of the Santa Clara County DEH to define the extent of soil contamination, groundwater sampling and evaluation. The DEH issued a no further action letter and the case was closed. Ms. Amendola also prepared a Phase I ESA at this site for a subsequent property transfer.

EMPLOYMENT HISTORY

Applied Water Resources, Corporation/Environmental Risk Specialties, San Jose/Santa Clara, California – Project Manager, 2009-present
O’Brien & Gere Engineers, Inc., Santa Clara, California, - Sr. Project Scientist, 2005-2009
ATC Associates, Monterey, California- Sr. Scientist, 2002-2005
Pinnacle Engineering, Maple Grove, Minnesota – Project Engineer, 1995-2002-

EDUCATION and CERTIFICATION:

University of Minnesota, Institute of Technology, BSCE
Professional Engineer, MN 41645
Registered Environmental Assessor, CA, No. 07647
Hazardous Material 40 Hour Training
Competent Person Excavation Training
Licensed Nuclear Density Gauge Operator

1046 West Taylor Street, Suite 105, San Jose, CA
408.220.4876

Kendall W. Price, CEG, REA
Principal Consultant/Regional Manager

Mr. Price has more than 40 years of professional experience. As a Senior Managing Scientist with O'Brien & Gere and consulting for United Soil Engineering, Inc., and President of E2C, Inc. he established technical criteria, provided technical guidance, and directed the activities of large or unique project teams including regional office groups. He is responsible for preparing project authorizations, establishing budget costs and schedules for each project under supervision, maintaining and updating all CIS system reports, and periodically reviewing the fiscal status and schedule of projects. Mr. Price assumes a project management role in leading major multi-disciplinary project teams of staff members from other sections and/or offices within the Firm, and offers significant contributions in the areas of technical development and quality improvement. He also provides continuous follow-up on client relations by maintaining personal contact with the client throughout the duration of a project and following project completion. Mr. Price also performs Phase I environmental site assessments and works with developers and their lenders to evaluate the environmental quality of redevelopment projects for higher better use.

Mr. Price has been responsible for the business development of the San Jose office. Client relations and project development has allowed the office to be recognized as a significant leader within the developer community as the go to consultant for both environmental as well as geotechnical/geological services. His client leadership has sustained the office from its opening in July 2009 to the present.

SELECTED PROJECT EXPERIENCE

Phase I Environmental Site Assessments, - Hayward, CA

Prepared Phase I Environmental Site Assessments, working with lenders and their specific environmental requirements. Studies included investigation of leaking underground fuel tanks and completion of the associated reports. Performed field studies on sanitary landfill to investigate leachate migration. Performed studies and quarterly monitoring events to comply with the owner's reporting requirements to the State of California.

EMC Planning Group, Inc. - King City, CA

Mr. Price provided the expertise for the formulation of a site investigation plan for a 70-acre agricultural site for development as a single-family residential subdivision. The investigation included an initial sampling plan to identify areas that were impacted by the past use of agricultural chemicals. Subsequent to that investigation an in-depth geotechnical investigation was performed to provide the recommendations for initial site development. Mr. Price was the primary technical interface between the various technical consultants.

California Bavarian Corp., - Sunnyvale, CA

Project included the closure of a chemical manufacturing facility through the local fire department, demolition of the building, excavation and disposal of contaminated soils. After the site was demolished, an in-depth geotechnical investigation was performed to provide design criteria for the development of the proposed mid-rise office building. Mr. Price was the primary contact during the site construction and interfaced with all other site development professionals. Responsible for Consultant Fees of $125,000.

Montera & Tehama, - Monterey, CA:

Mr. Price manages the geotechnical and geological investigations for this 6,000 acre residential development. He reviews the field investigation tasks, assists in evaluating the field and laboratory data, and outlines the various construction recommendations to be implemented during the various phases of site development. In addition Mr. Price also manages the technical inspection staff and interfaces with the grading contractor. ($10M site development)

Cypress Marina, Marina, CA

Mr. Price provided the geotechnical oversight with respect to the redevelopment of 115 acres of former Fort Ord property. The investigation included an evaluation of the dune sands that would be the foundation soils for the proposed single family residences. Site development with respect to grading within the dune sands proved to be a challenge. Moisture loss in the wind blown sands and proper compaction were an ongoing concern. Mr. Price worked with the grading contractor to maximize compaction effort during site grading and minimizing the need to regrade areas that had met prior compaction. Individual lot development has been slowed as a result of the current economic conditions.

Suncap Property Group, Redwood City, CA

Project consisted of a Phase I investigation and multiple stages of Phase II investigations to define the area of soil impact. The project was over seen by the RWQCB. Mr. Price designed the remedial action plan that was approved by the RWQCB. That plan was implemented and successfully received case closure from the RWQCB.

Curt Lanning, Mt. View, CA

Remedial Action to remove impacted soil from a former UST site. Mr. Price worked with Santa Clara County DEH regarding the remediation of a former UST site. The work included the excavation of impacted soil and removal of groundwater under DEH oversight. The project was issued a no further action letter from the County DEH. The tank was initially removed in the 1980s but did not receive and remedial action at that time. The issue surfaced as the result of the pending sale of the project.

City of San Carlos, San Carlos, CA

Phase I investigation for property acquisition and redevelopment. Upon completion of the Phase I work Mr. Price designed multiple Phase II investigations to define the fate and transport of the soil and groundwater contamination. All work was performed under the guidance of the San Mateo County DEH. Upon completion of the investigations a remedial action plan (RAP) was submitted to the County and approved. The RAP was implemented and groundwater monitoring is currently being performed to monitor the efficacy of the RAP. Vapor intrusion is the principal contaminant of concern.

Bradford Manufacturing, Santa Clara, CA

Redevelopment of a former forge and flange manufacturing property in operation since the 1940s. A Phase I and multiple Phase II investigations were performed at the site under the direction and approval of the Department of Toxic Substance Control (DTSC). Upon defining the fate and transport of the site contaminants, Mr. Price prepared a remedial action plan that was approved by the DTSC. It was implemented and the and soil was remediated and groundwater monitored. This project took over 3 years to complete and receive a no further action letter from the DTSC.

Tron Do, San Jose, CA

This project consisted of multiple Phase II investigations to define soil/groundwater contamination from multiple USTs at the site. Mr. Price worked with the client and the Santa Clara County DEH regarding the various investigations and the remedial action to be implemented at the site. A remedial action plan was submitted and approved. Upon completing the implementation of the approved plan and subsequent groundwater monitoring the site was granted no further action status. This project took over 2 years to complete.

San Jose Unified School District, San Jose, CA

The site action resulted from a discharge from a UST. Mr. Price prepared multiple Phase II investigations under the direction of the Santa Clara County DEH to define the extent of soil contamination. The investigations were of sufficient detail to conclude that the discharge would not impact groundwater at the site. Therefore, the DEH issued a no further action letter and the case was closed.

Dollinger Properties, Fremont, CA

A Phase I investigation was performed with additional Phase II studies to define the extent of an oil discharge from a transformer at the site. All of the work was over seen by the Alameda County Water District (ACWD). The soil contamination was defined and a removal action plan was presented to the ACWD and approved. The impacted soil was removed from the site and the site was granted case closure by the ACWD.

EMPLOYMENT HISTORY

Applied Water Resources, Corporation - Regional Manager, San Jose Office

O’Brien & Gere Engineers, Inc., Sr. Managing Scientist

E2C, Inc., Santa Clara, CA, President; United Soil Engineering, Inc., Santa Clara, CA, Vice President; International Engineering Co., Inc., San Francisco, CA, Associate Engineering Geologist.

W.A. Wahler & Associates, Palo Alto, CA, Staff Geologist –

EDUCATION and CERTIFICATION:

San Jose State University; B.S. (Geology)
Registered Geologist, CA, No. 3787; OR, No. 261
Certified Engineering Geologist, CA, No. 1188; OR, No. 261
Registered Environmental Assessor, CA, No. 456
National Water Well Association
Association of Engineering Geologists
Hazardous Material 40 Hour & Supervisor Training
Competent Person Excavation Training

APPENDIX E

Topographic Maps

10625-10637 Stevens Canyon Road
10625 S Foothill Boulevard
Cupertino, CA 95014

Inquiry Number: 5134350.4
December 11, 2017

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

12/11/17

Site Name:	**Client Name:**
10625-10637 Stevens Canyon	Applied Water Resources Corporation
10625 S Foothill Boulevard	1046 W. Taylor Street
Cupertino, CA 95014	San Jose, CA 95126
EDR Inquiry # 5134350.4	Contact: Janelle Amendola

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Applied Water Resources Corporation 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:	10625-10637 Stevens Canyon

Coordinates:

Latitude:	37.313698 37° 18' 49" North
Longitude:	-122.069071 -122° 4' 9" West
UTM Zone:	Zone 10 North
UTM X Meters:	582489.85
UTM Y Meters:	4130079.08
Elevation:	429.97' above sea level

Maps Provided:

2012
1995
1980
1973
1968
1961
1953
1948
1947
1943
1902
1899
1897

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Cupertino
2012
7.5-minute, 24000

1995 Source Sheets

Cupertino
1995
7.5-minute, 24000
Aerial Photo Revised 1991

1980 Source Sheets

Cupertino
1980
7.5-minute, 24000
Aerial Photo Revised 1979

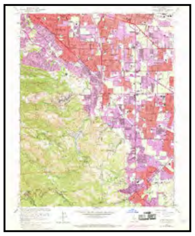
1973 Source Sheets

Cupertino
1973
7.5-minute, 24000
Aerial Photo Revised 1973

Topo Sheet Key

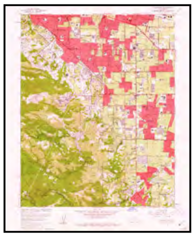
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1968 Source Sheets



Cupertino
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1961 Source Sheets



Cupertino
1961
7.5-minute, 24000
Aerial Photo Revised 1960

1953 Source Sheets

Cupertino
1953
7.5-minute, 24000
Aerial Photo Revised 1948

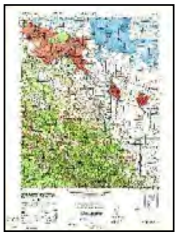
1948 Source Sheets

Palo Alto
1948
15-minute, 62500
Aerial Photo Revised 1948

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets



PALO ALTO
1947
15-minute, 50000

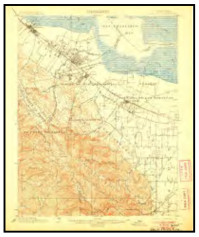
1943 Source Sheets

Palo Alto
1943
15-minute, 62500
Aerial Photo Revised 1940

1902 Source Sheets

Santa Cruz
1902
30-minute, 125000

1899 Source Sheets



Palo Alto
1899
15-minute, 62500

Topo Sheet Key

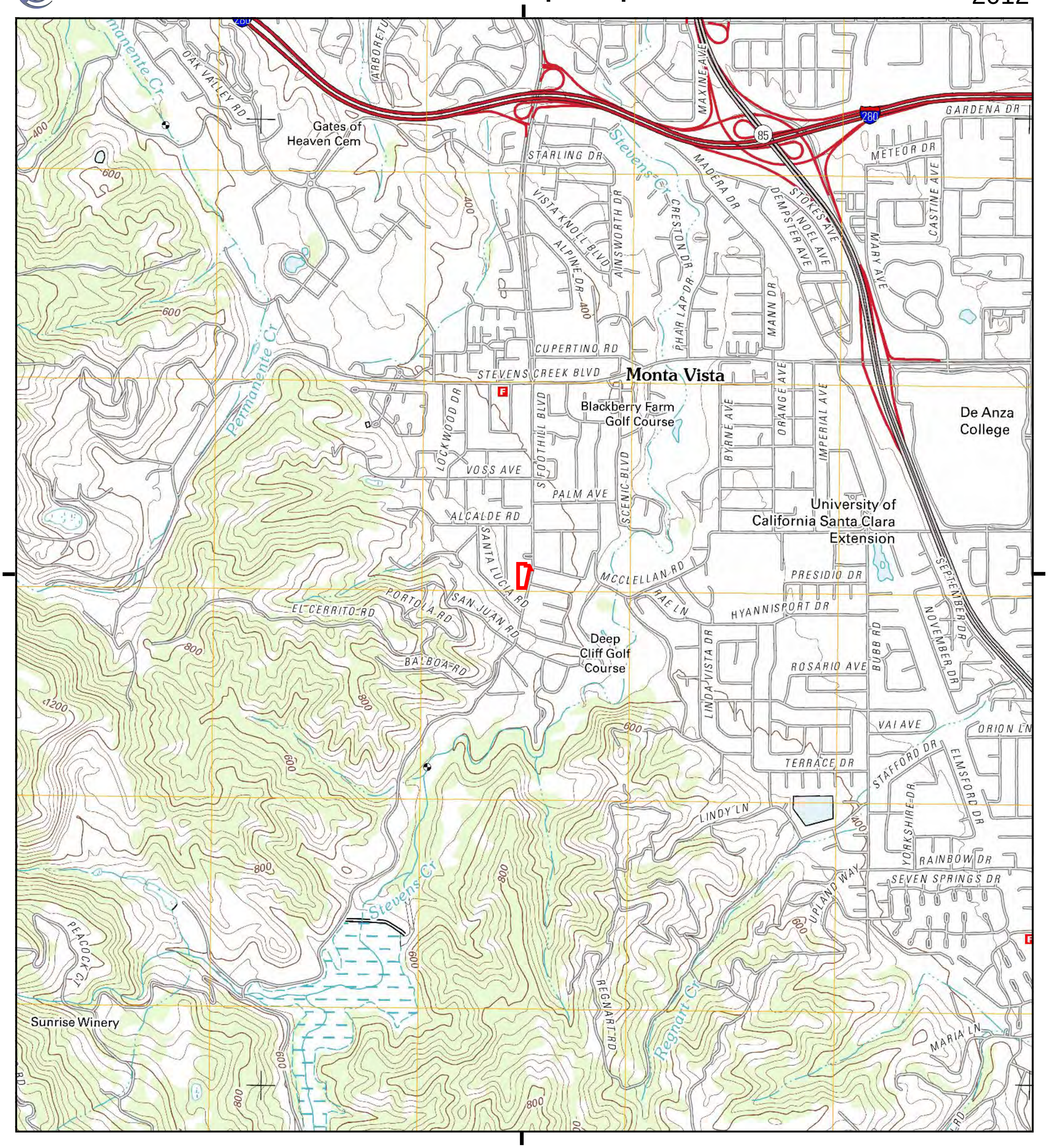
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1897 Source Sheets

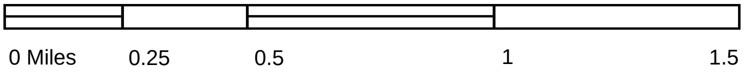
Palo Alto
1897
15-minute, 62500

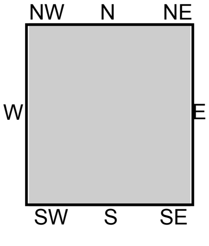
Historical Topo Map

2012



This report includes information from the following map sheet(s).



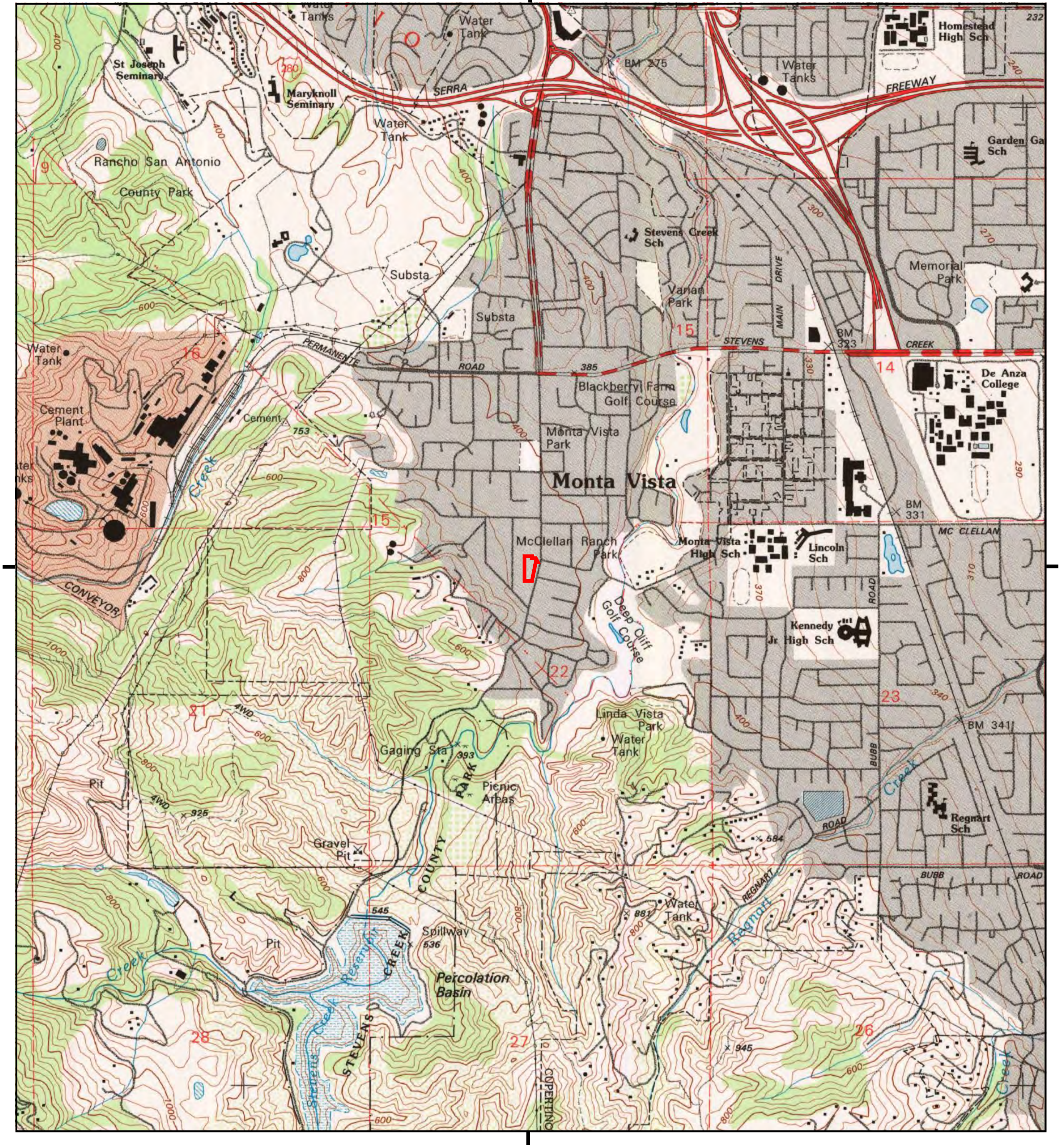


TP, Cupertino, 2012, 7.5-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1995



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

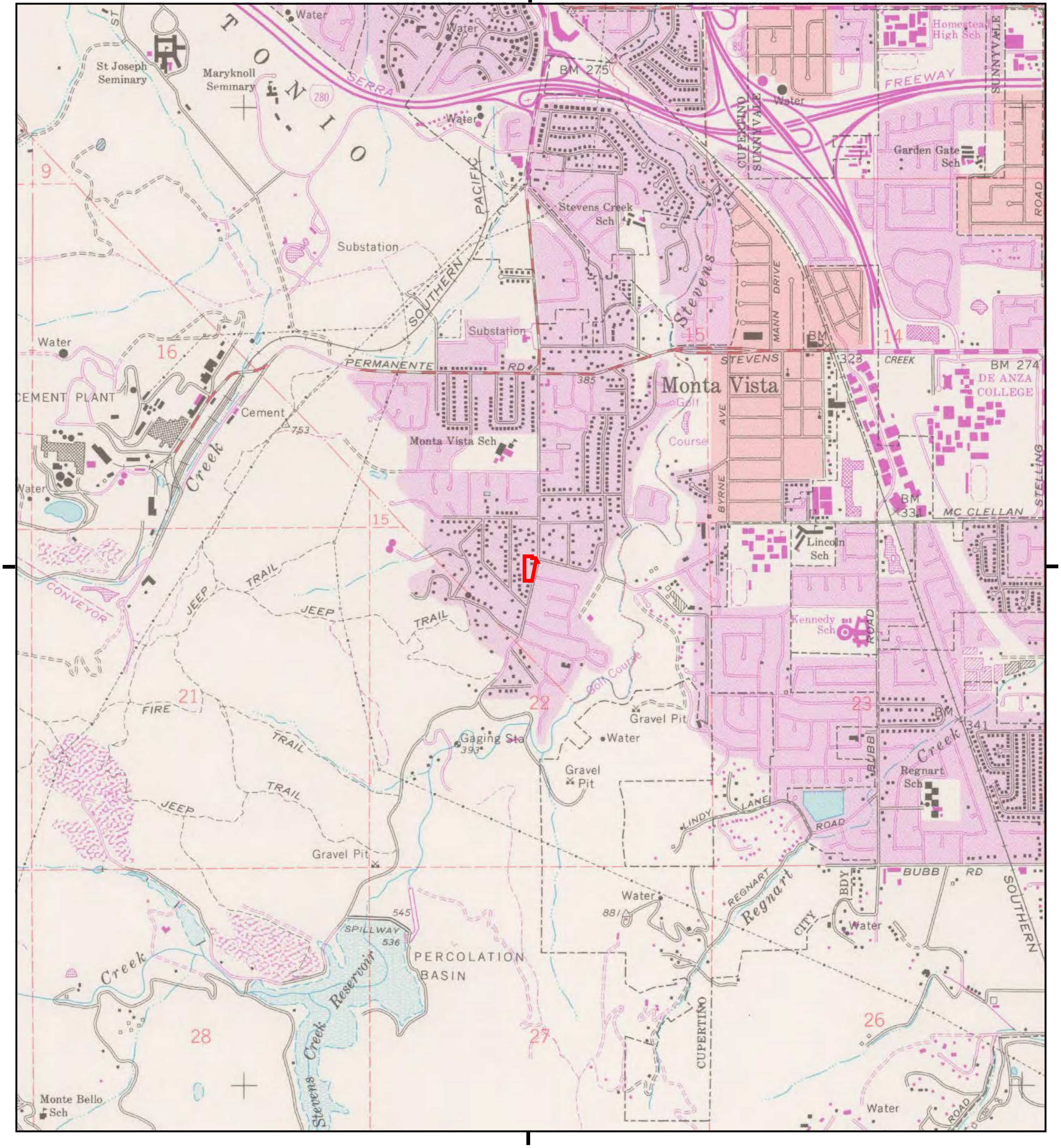
TP, Cupertino, 1995, 7.5-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

N

Historical Topo Map

1980



This report includes information from the following map sheet(s).

0 Miles	0.25	0.5	1	1.5

NW N NE

W E

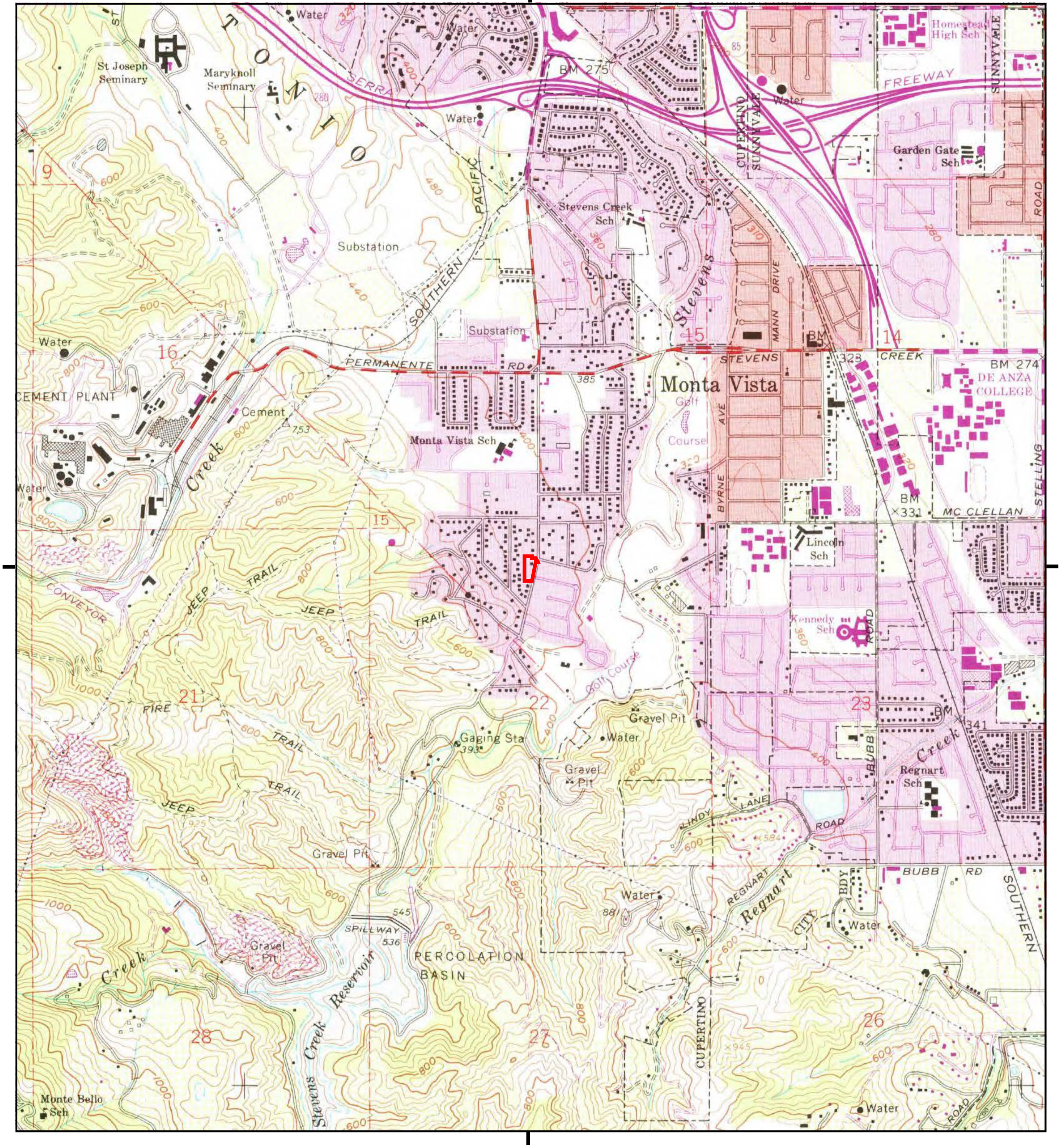
SW S SE

TP, Cupertino, 1980, 7.5-minute

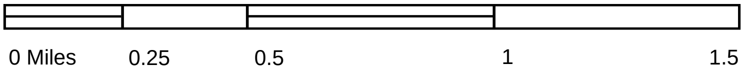
SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

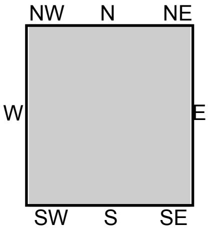
Historical Topo Map

1973



This report includes information from the following map sheet(s).



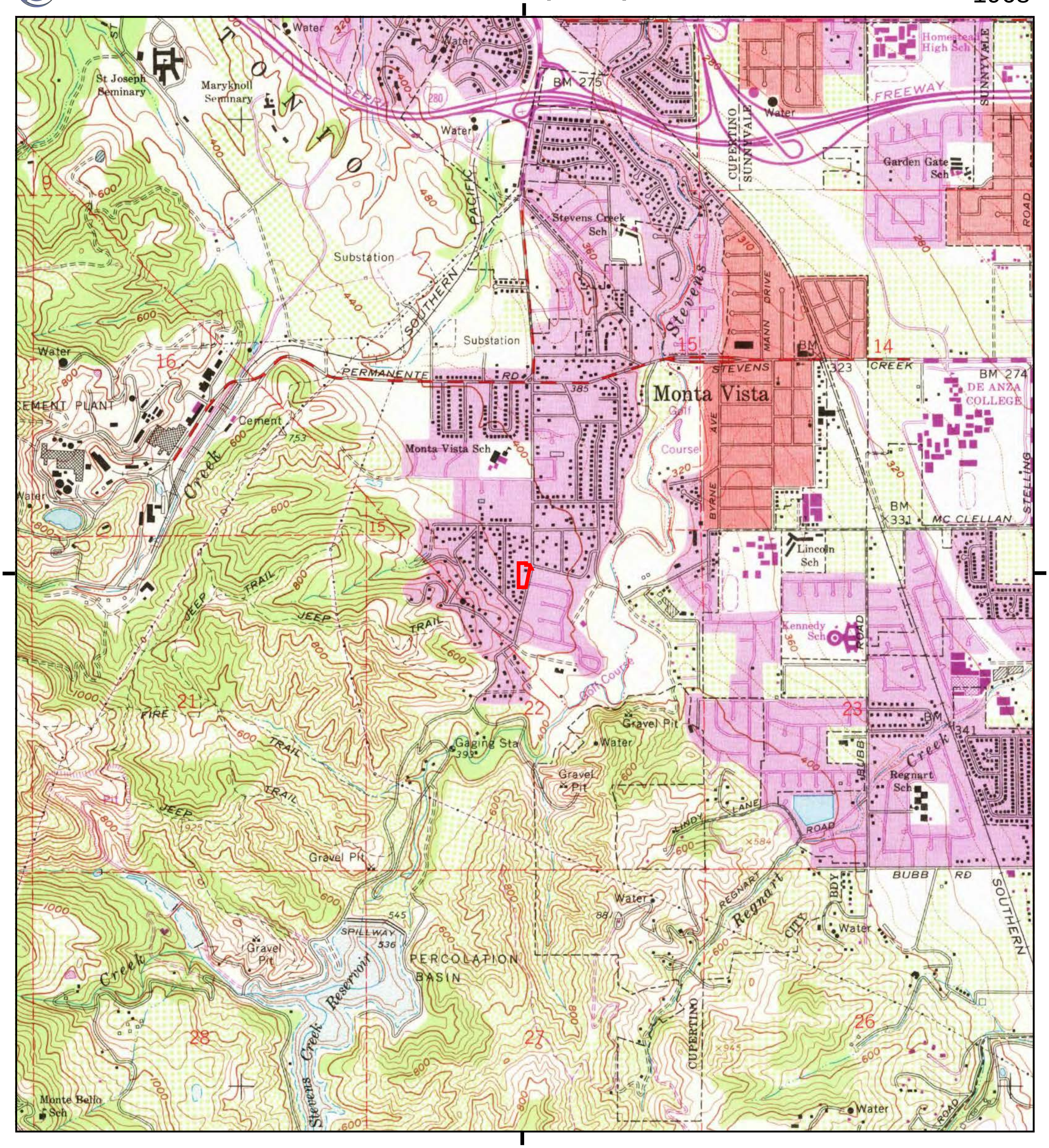


TP, Cupertino, 1973, 7.5-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1968



0 Miles 0.25 0.5 1 1.5

This report includes information from the following map sheet(s).

NW N NE
W E
SW S SE

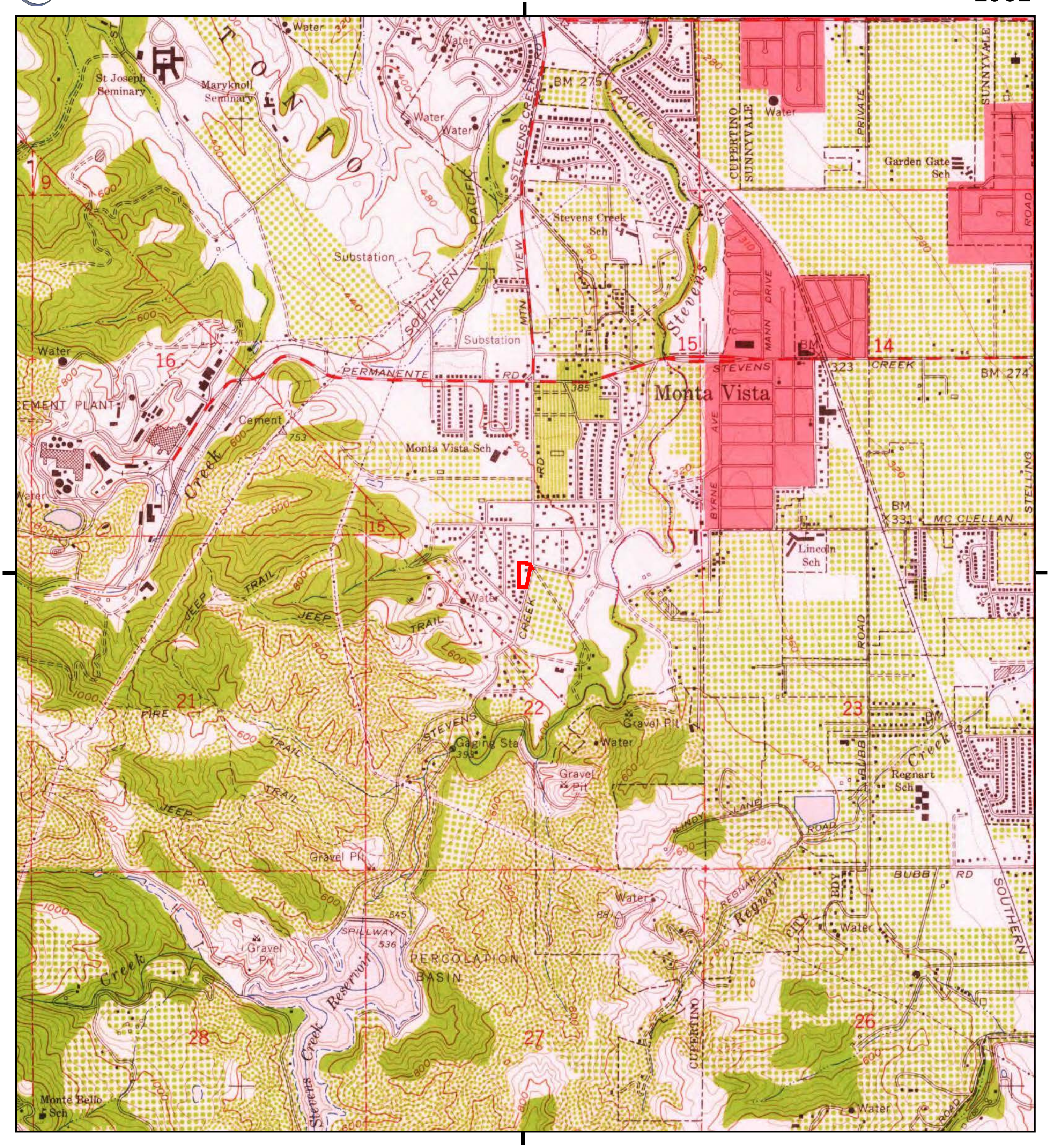
TP, Cupertino, 1968, 7.5-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

N

Historical Topo Map

1961



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE

W E

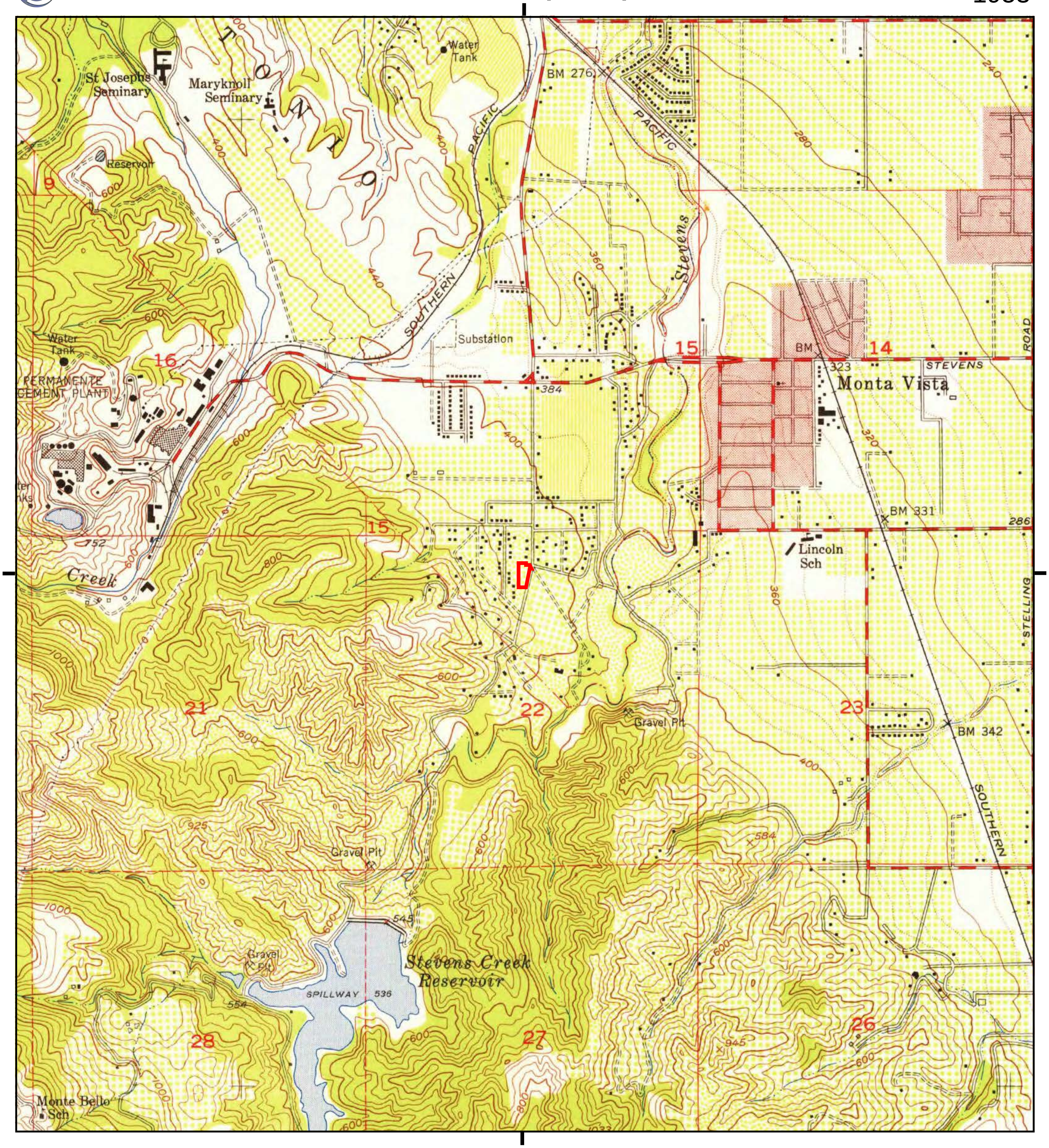
SW S SE

TP, Cupertino, 1961, 7.5-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1953



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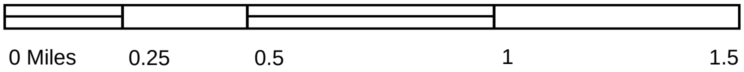
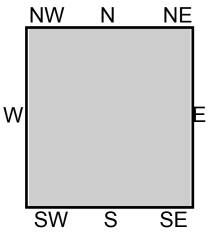


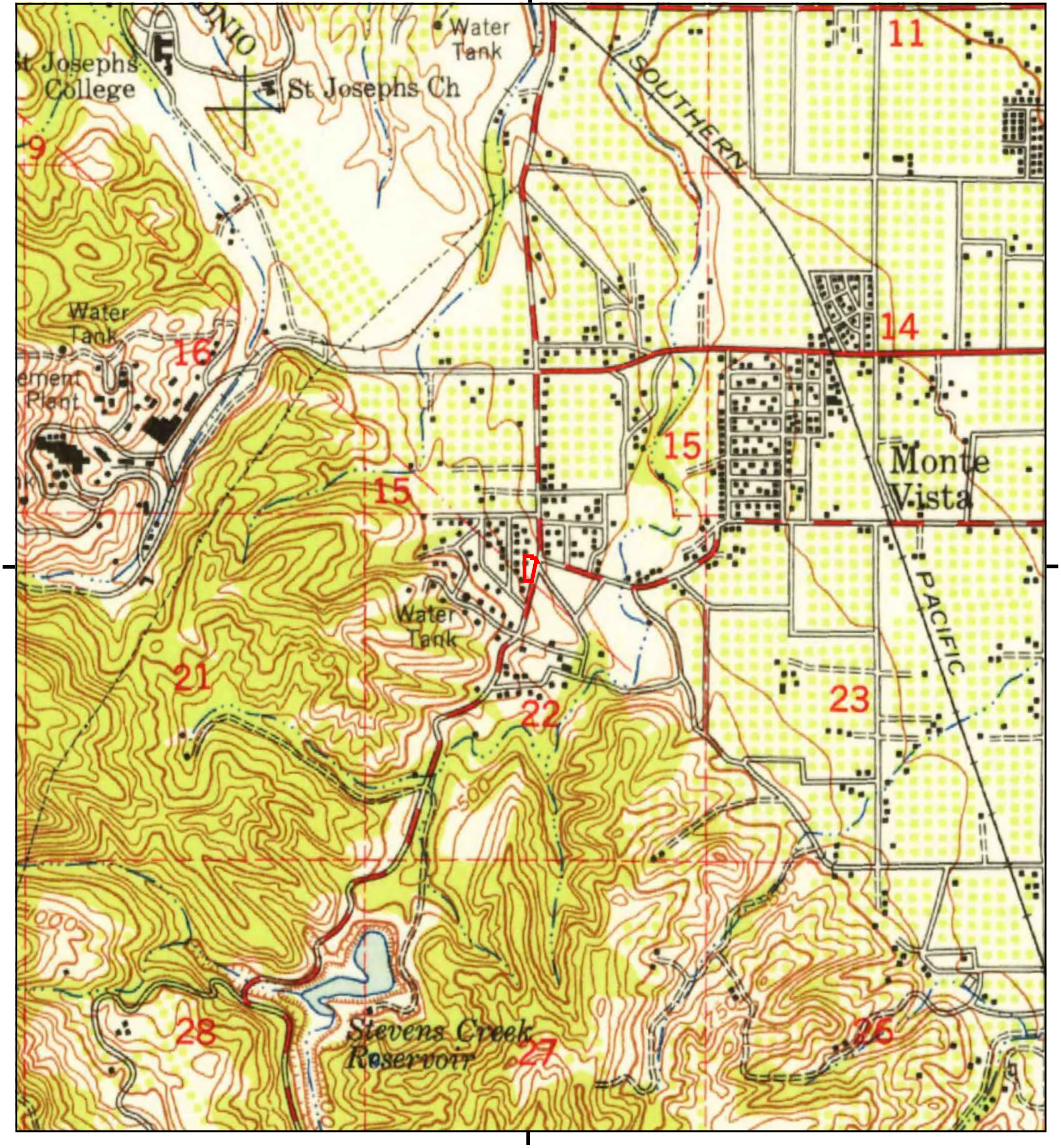


TP, Cupertino, 1953, 7.5-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1948



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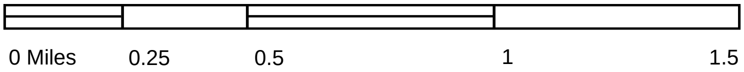
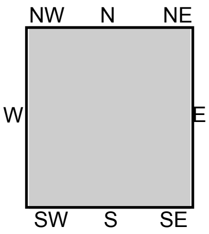


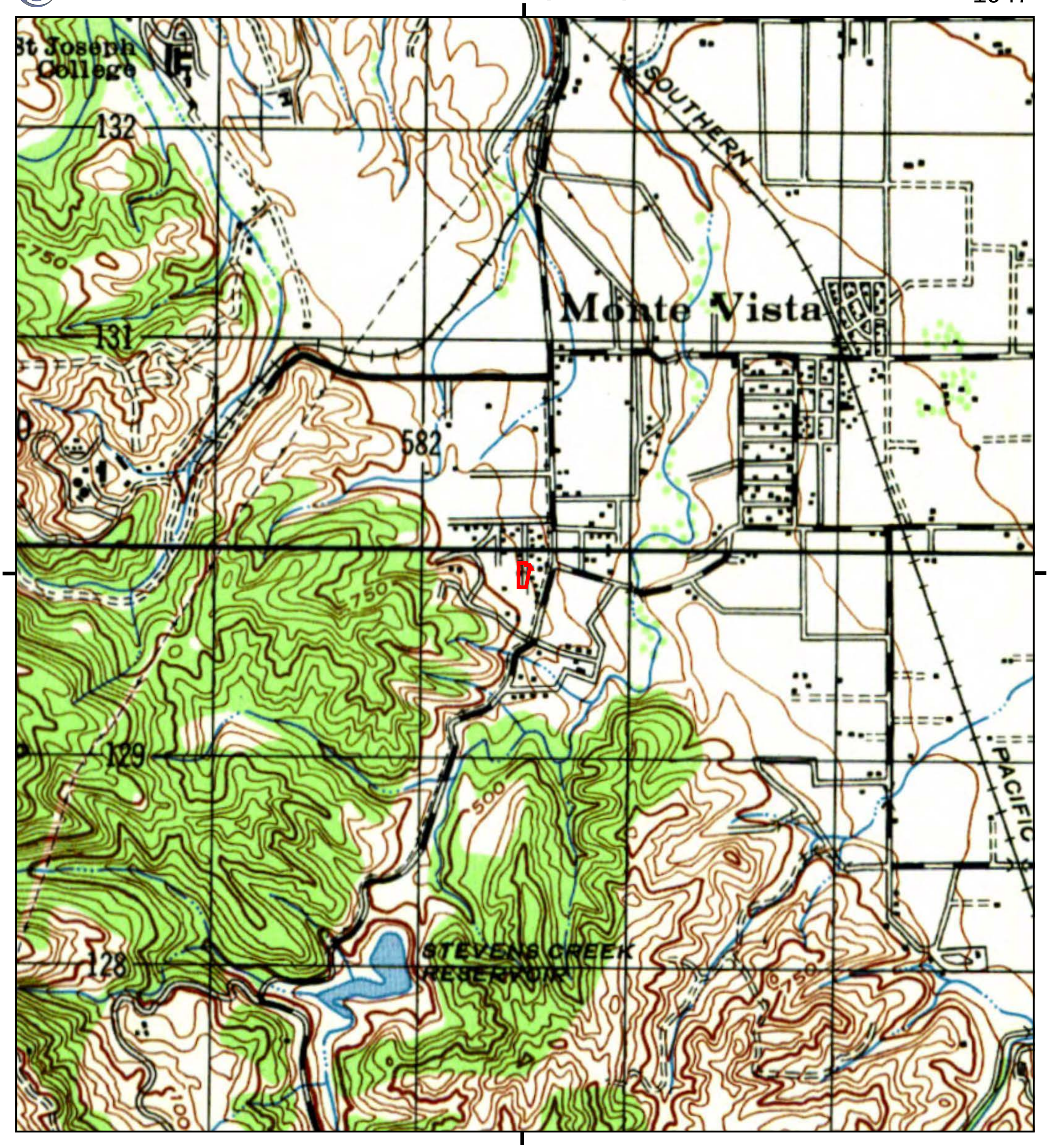


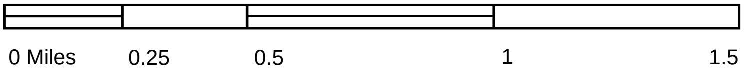
TP, Palo Alto, 1948, 15-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1947





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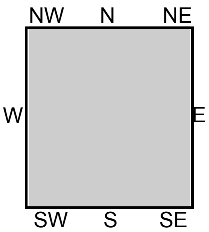
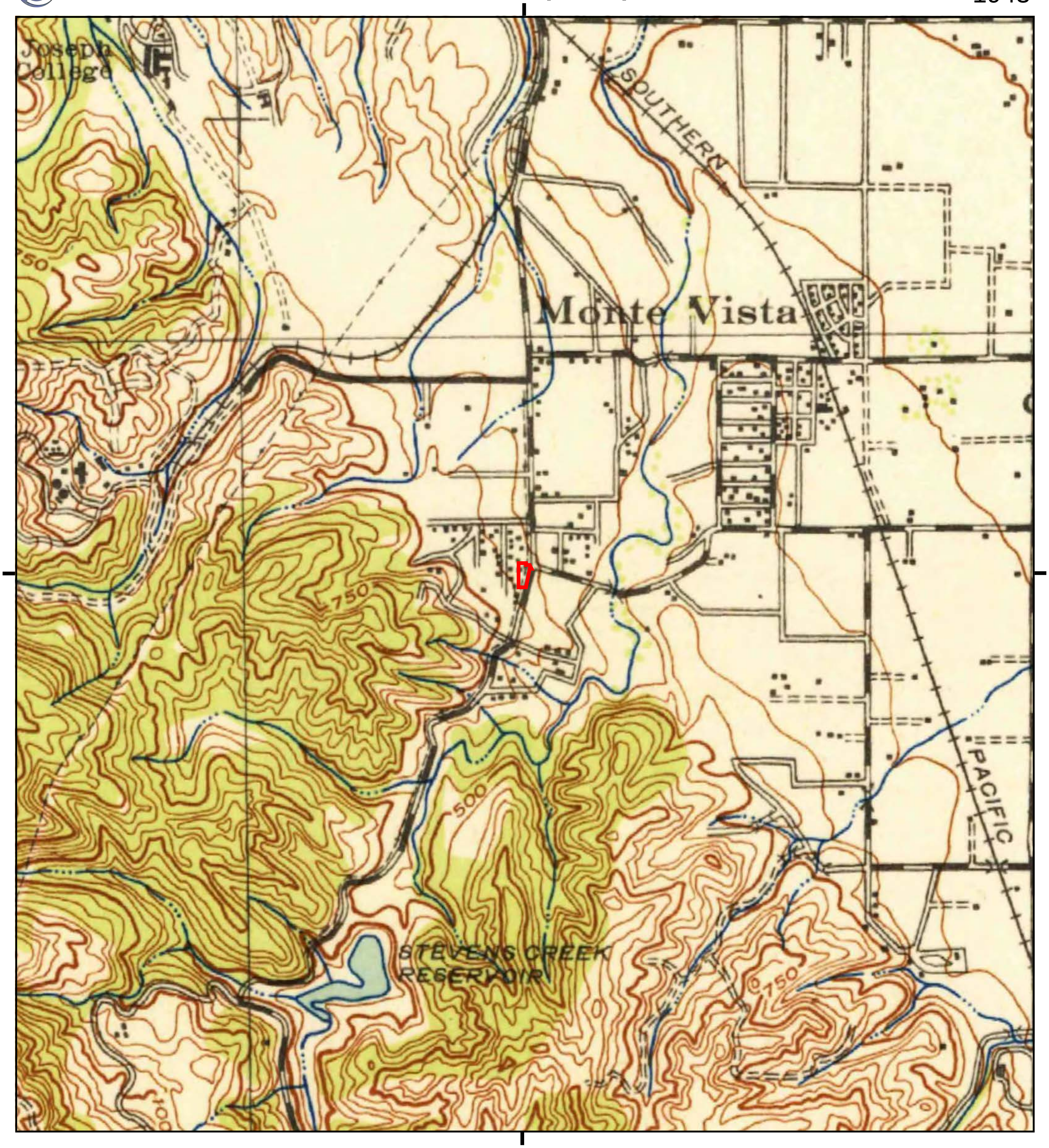


TP, PALO ALTO, 1947, 15-minute

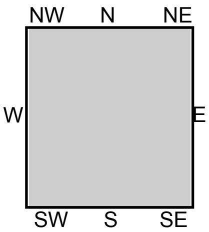
SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1943



This report includes information from the following map sheet(s).

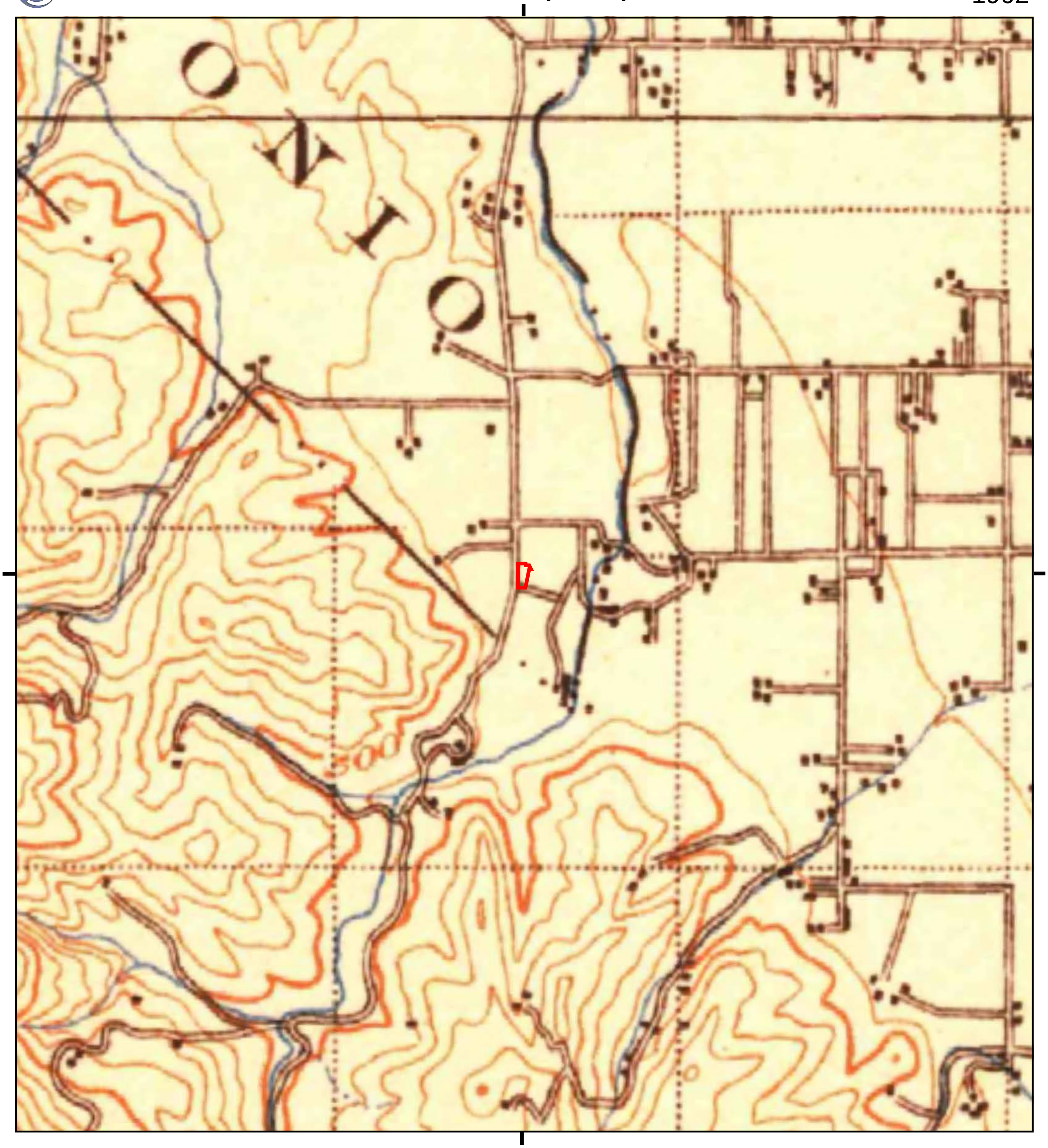


TP, Palo Alto, 1943, 15-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

Historical Topo Map

1902



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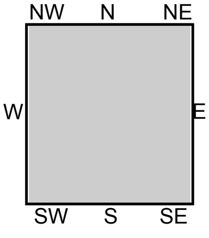
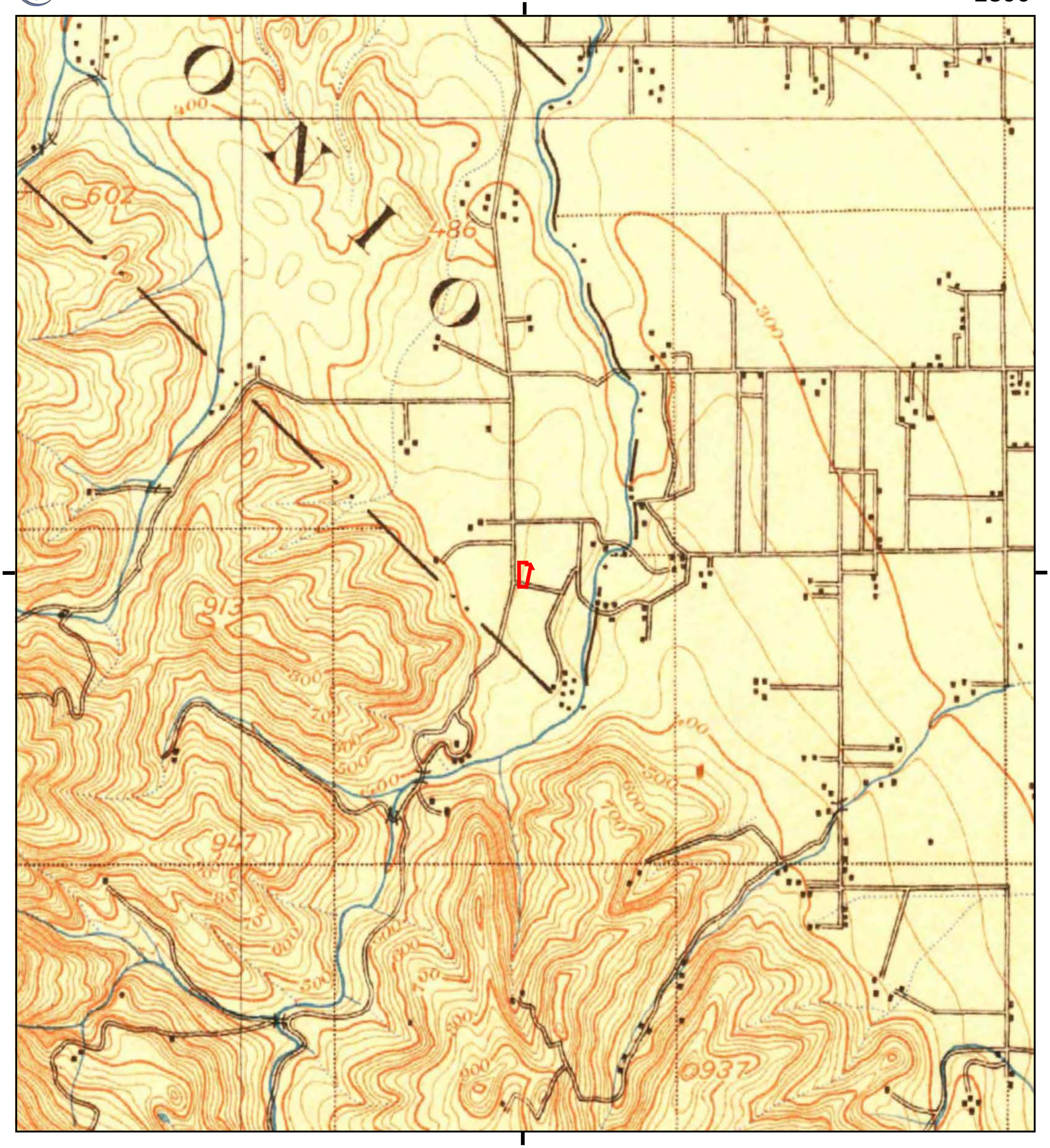


TP, Santa Cruz, 1902, 30-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

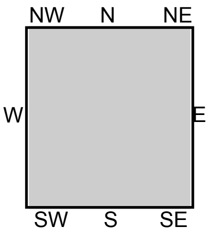
Historical Topo Map

1899



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



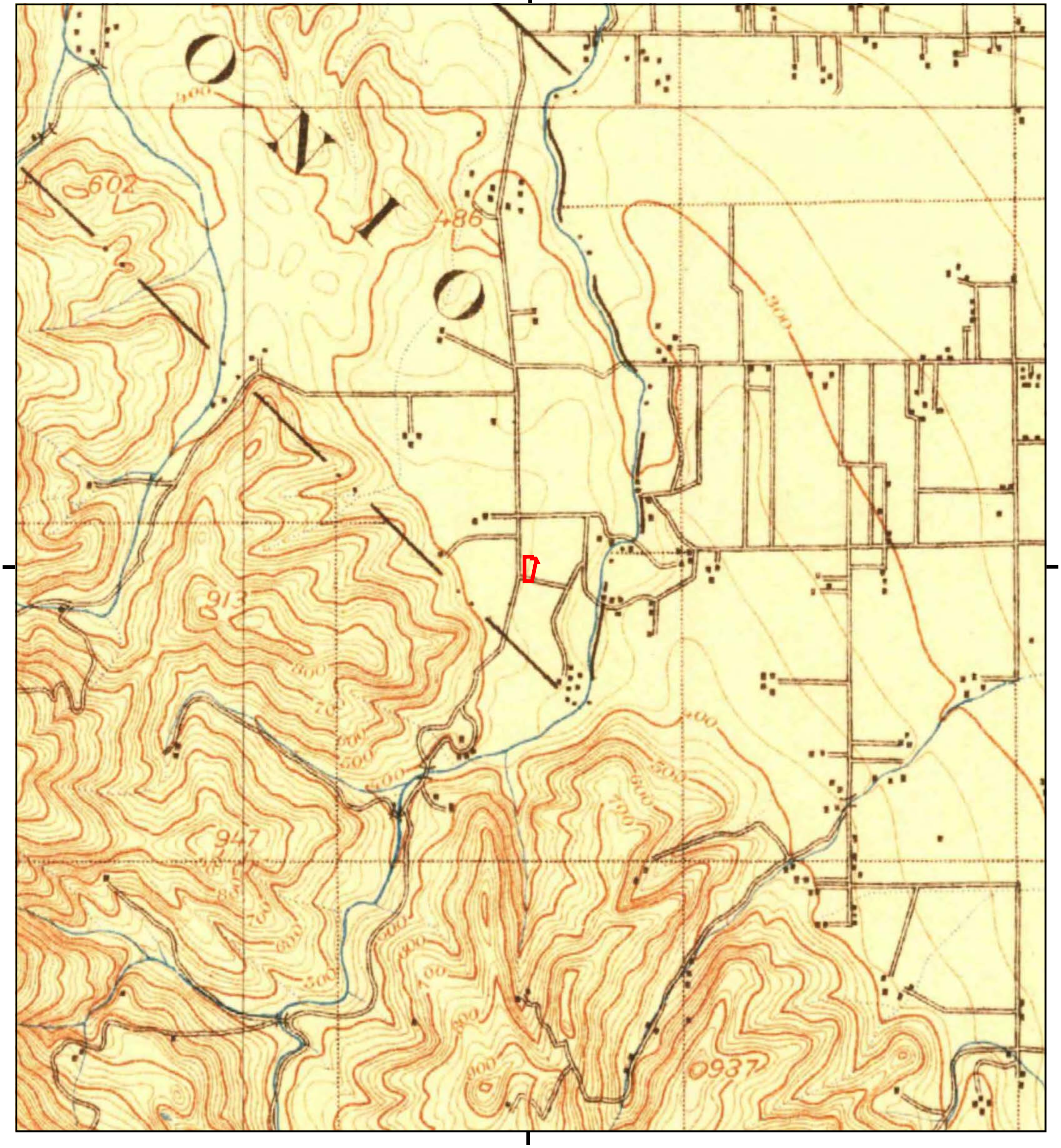
TP, Palo Alto, 1899, 15-minute

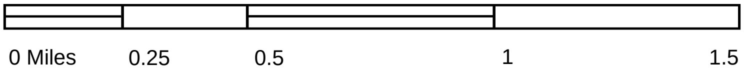
SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

N

Historical Topo Map

1897





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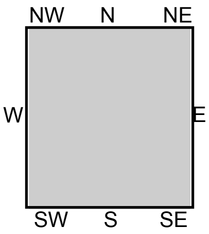


TP, Palo Alto, 1897, 15-minute

SITE NAME: 10625-10637 Stevens Canyon Road
ADDRESS: 10625 S Foothill Boulevard
Cupertino, CA 95014
CLIENT: Applied Water Resources Corporation

APPENDIX F
Aerial Photographs

10625-10637 Stevens Canyon Road

10625 S Foothill Boulevard

Cupertino, CA 95014

Inquiry Number: 5134350.12

December 11, 2017

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

12/11/17

Site Name:

10625-10637 Stevens Canyon
10625 S Foothill Boulevard
Cupertino, CA 95014
EDR Inquiry # 5134350.12

Client Name:

Applied Water Resources Corporation
1046 W. Taylor Street
San Jose, CA 95126
Contact: Janelle Amendola

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.

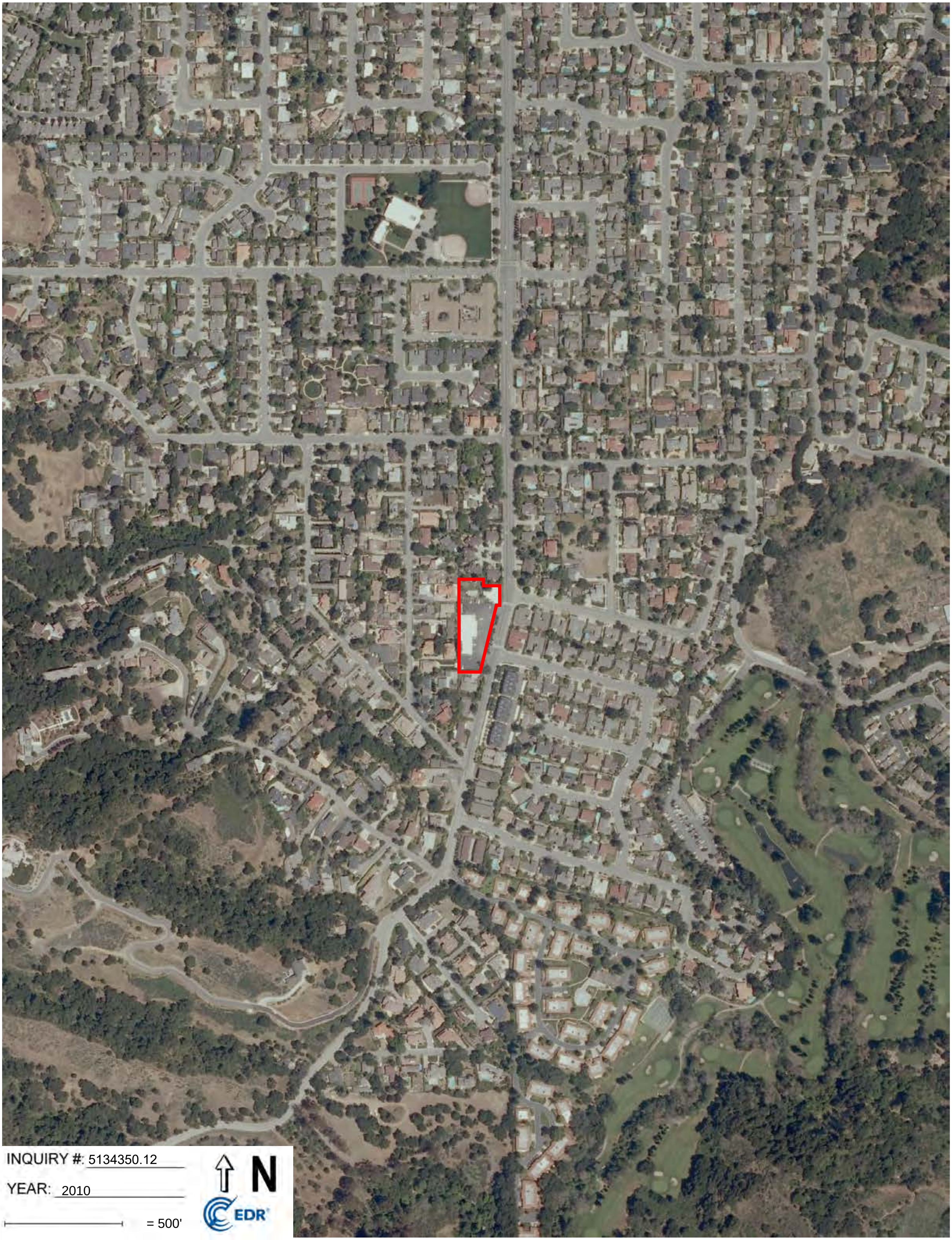
Search Results:

Year	*Scale*	*Details*	*Source*
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	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
1974	1"=500'	Flight Date: June 26, 1974	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 24, 1963	USGS
1956	1"=500'	Flight Date: June 05, 1956	USDA
1950	1"=500'	Flight Date: April 03, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1939	1"=500'	Flight Date: August 01, 1939	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

INQUIRY #: 5134350.12

YEAR: 2012



INQUIRY #: 5134350.12

YEAR: 2010

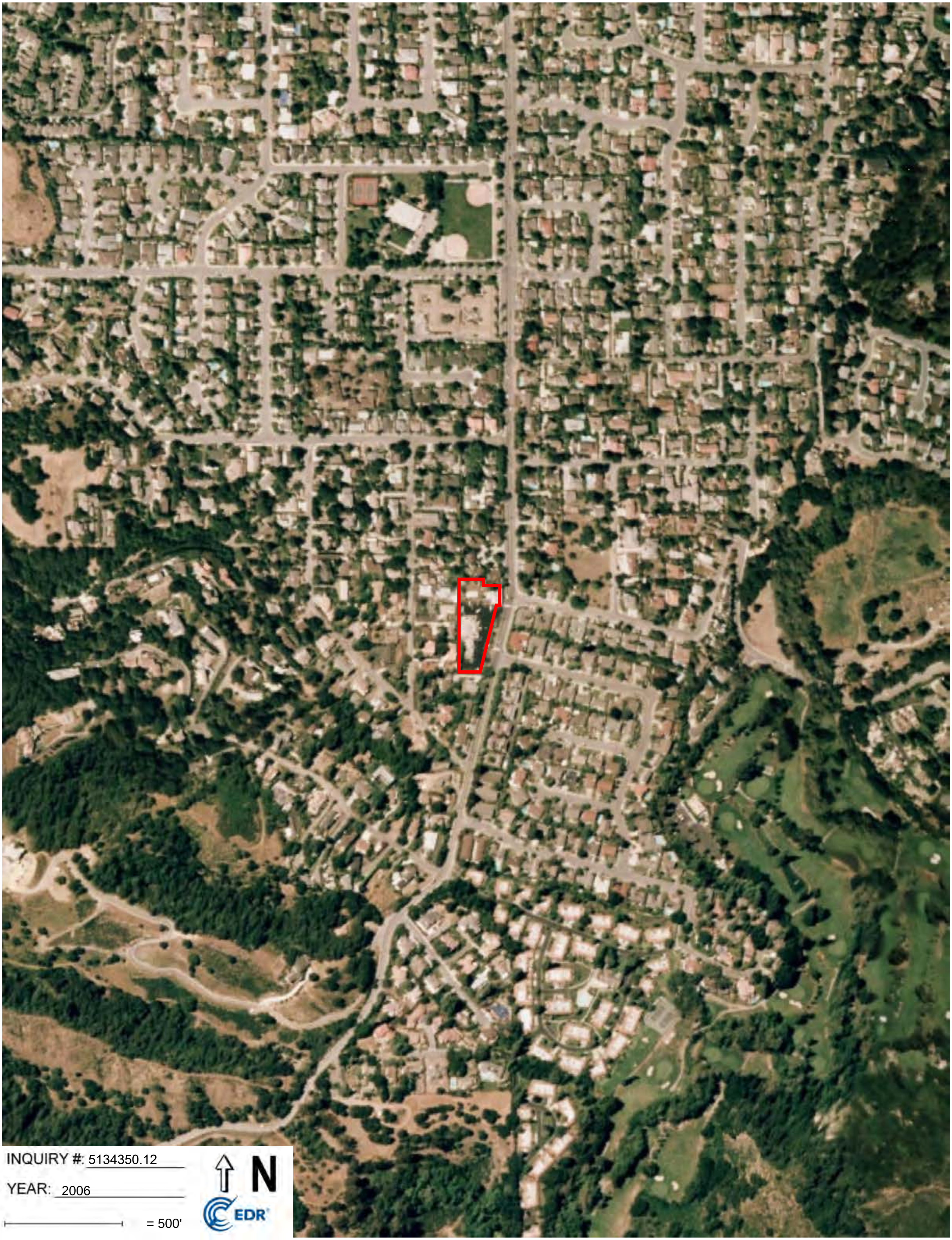
= 500'

N

INQUIRY #: 5134350.12

YEAR: 2009

= 500'



INQUIRY #: 5134350.12

YEAR: 2006

= 500'

N

EDR

INQUIRY #: 5134350.12

YEAR: 2005

= 500'

N

EDR

INQUIRY #: 5134350.12

YEAR: 1998

= 500'


INQUIRY #: 5134350.12

YEAR: 1991

= 500'

N

EDR

INQUIRY #: 5134350.12

YEAR: 1974

= 500'

INQUIRY #: 5134350.12

YEAR: 1968

= 500'

INQUIRY #: 5134350.12

YEAR: 1963

= 500'

INQUIRY #: 5134350.12

YEAR: 1956

= 500'

INQUIRY #: 5134350.12

YEAR: 1950

INQUIRY #: 5134350.12

YEAR: 1948

= 500'

N

EDR

[redacted]

INQUIRY #: 5134350.12

YEAR: 1939

= 500'

APPENDIX G
Sanborn Fire Insurance Maps

10625-10637 Stevens Canyon Road
10625 S Foothill Boulevard
Cupertino, CA 95014

Inquiry Number: 5134350.3
December 11, 2017

Certified Sanborn® Map Report

EDR®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/11/17

Site Name:

10625-10637 Stevens Canyon
10625 S Foothill Boulevard
Cupertino, CA 95014
EDR Inquiry # 5134350.3

Client Name:

Applied Water Resources Corporation
1046 W. Taylor Street
San Jose, CA 95126
Contact: Janelle Amendola

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Applied Water Resources Corporation were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 4302-4F10-881E

PO # NA

Project 10625-10637 Stevens Canyon

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 4302-4F10-881E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

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Disclaimer - Copyright and Trademark Notice

APPENDIX H
City Directories

10625-10637 Stevens Canyon Road
10625 S Foothill Boulevard
Cupertino, CA 95014

Inquiry Number: 5134350.5
December 12, 2017

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

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
1986	☑	☑	Haines Criss-Cross Directory
1980	☑	☑	Haines Criss-Cross Directory
1975	☑	☑	Haines Criss-Cross Directory
1970	☑	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

10625 S Foothill Boulevard
Cupertino, CA 95014

Year	***CD Image***	***Source***
S FOOTHILL BLVD		
2014	pg A1	EDR Digital Archive
2010	pg A5	EDR Digital Archive
2005	pg A9	EDR Digital Archive
2000	pg A12	EDR Digital Archive
1995	pg A15	EDR Digital Archive
1992	pg A17	EDR Digital Archive
1986	pg A19	Haines Criss-Cross Directory
1980	pg A21	Haines Criss-Cross Directory
1980	pg A22	Haines Criss-Cross Directory
1975	pg A24	Haines Criss-Cross Directory
1970	pg A26	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

Year	CD Image	Source	
STEVENS CANYON RD			
2014	pg. A2	EDR Digital Archive	
2010	pg. A6	EDR Digital Archive	
2005	pg. A10	EDR Digital Archive	
2000	pg. A13	EDR Digital Archive	
1995	pg. A16	EDR Digital Archive	
1992	pg. A18	EDR Digital Archive	
1986	pg. A20	Haines Criss-Cross Directory	
1980	pg. A23	Haines Criss-Cross Directory	
1975	pg. A25	Haines Criss-Cross Directory	
1970	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S FOOTHILL BLVD 2014

10535	WINNER, DAVID N
10550	HURNG ENTERPRISES
	HURNG, JIMMY J
10555	CLARK, JW
10560	MATSUMOTO, PETER D
10570	MATHIAS, ANITA
10571	LOPEZ, DONALD F
10580	KOPALLE, MADHU N
10600	CHEN, YAN
10610	WANG, QIN
10625	DUNCAN, KENNY
	JONES, KEVIN
	KNOX, SHARRON
	LIM, TERY
	ROBINSON, MARCUS
10627	PERKINS, KENNETH
10629	STEVENS CREEK MARKET AND VIDEO
	U HAUL NEIGHBORHOOD DEALER
10631	JUICE FOR YOU CAFE
10633	GUSTAVOS HAIR BY DESIGN
10635	JUDYS KITCHEN

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STEVENS CANYON RD 2014

10645	DEWAN, JAHANGIR H
	INVISION DESIGN SYSTEMS INC
	SBIT INC
10655	TAO, DAVID
10685	FENG, YOULIN
10688	OCCUPANT UNKNOWN,
10692	MENG, SABRINA
10696	HAYES, CHRISTOPHER M
10700	HAN, YI I
10704	LEE, HANSEN
10708	HUANG, MEI C
10712	PAYNE, JEFF
10716	RUSTAGI, AMIT
10720	KUMARASAMY, SANKAR
10724	LEE, TZONG H
10728	CORRADI, ANTHONY S
10732	ZHANG, YIDUO
10736	RAO, SMITHA
10740	KILBOURN, CHRISTOPHER R
10744	THAKKER, SAILESH R
10750	HERRON, FRANK
	STALLCOP, JAMES R
10751	OCCUPANT UNKNOWN,
10760	PEREZ, MICHAEL
10762	DAYTON, JOHN
10764	OCCUPANT UNKNOWN,
10770	DAVIS, JOHN A
10772	THOMAS, MARK S
10773	BALDE, ANTON
10774	JAMMU, SOMEL P
10775	FRIDAY, BRIAN M
10825	POTHINENI, RAVI C
10875	BEROSKE, KELLY N
10950	CUMULOGIC INC
	RAMCHANDANI, RAJESH G
10952	HIFAI, ROY
10954	ELLIOTT-LINDO, EMIR E
11041	OCCUPANT UNKNOWN,
11401	SANTA CLARA COUNTY OF
	STEVENS CREEK PK ARCHERY RANGE
11998	SUNNYDALE ROD & GUN CLUB INC
12100	BROOM SERVICE INC
	STEVENS CREEK QUARRY INC
	VOSS RICH TRUCKING INC
13325	CANYON RIVER
	CONSIGNY, DEBBIE R
	CONSIGNY, MARC P
	COZY CREEK
13326	FORESTRY AND FIRE PROTECTION
	STEVENS CREEK VLNTR FIRE DEPT

STEVENS CANYON RD 2014 (Cont'd)

13851	VIA REHABILITATION SVCS INC
13861	SANDRA KEEFE
13871	STELLAR CONTRACTING CO
15527	CHAN, THOMAS
15531	AHLERS, MARTIN
	COCHELL, JASON
	COPELAND, PHILIP
	VILAIN, PATRICK
	WHITEHILL CONSULTING
15555	HALL RICHARD ALAN
	HALL, RICHARD A
15601	OCCUPANT UNKNOWN,
15602	OCCUPANT UNKNOWN,
15630	CLIFF OLINGER TRUCKING
	CUNHA, JERRY
	HARTWIG, DEBRA J
	HOGUE, MICHAEL J
	HOWARD, MIKE D
	KELLNER, YVONNE
	NORTH, DANIEL J
	OLINGER, CLIFFORD J
	SEVERIN, ASHLEY
	WARNER, JANICE L
	WROBLEWSKI, D
15853	FLEWELLING KIP
	FLEWELLING, KIP K
16201	HANSEN, BENJAMIN
	KAIN PERFORMANCE LLC
16221	WONG, DOUGLAS M
16280	OCCUPANT UNKNOWN,
16301	M S JOSSELYNS DESIGNS
	OCCUPANT UNKNOWN,
16360	AFNAN, MIAN
16390	ZIGLER, SARAH C
16500	EISENSTEIN, LARISSA E
16530	ROBLEDO, ALFRED
16531	CUNNINGHAM, KERRY L
16790	BABA, NORMAN N
16891	KAUK, PRESTON L
17251	G2 ENGINEERING INC
	LYSONS, SYDNEY
17281	OCCUPANT UNKNOWN,
17285	LA, V T
17288	HSA ENGINEERING INC
	SAWYER KEVIN ANDREW
	SAWYER, KEVIN A
17294	ABEGG, ROGER W
17298	WALKER, DALE J
17300	HEKKING, FRED R
17310	BAUER, BENNETT

STEVENS CANYON RD 2014 (Cont'd)

17320	HULL, JERRY L
	NORTHEATON PLASTERING
17450	BREESE, JENNIFER
	BYRNE, SHERI A
	CANYON CONSULTING
	HABER, EBEN M
	MCROY, ANGELA
17950	BUSHONG, G J
17952	PADELT, JAMES S
18000	PETERSON, KEVIN H

Target Street	**Cross Street**	**Source**
✓	-	EDR Digital Archive

S FOOTHILL BLVD 2010

10535	CASA BANDERA TIC 8 LLC
	OCCUPANT UNKNOWN,
10550	HURNG ENTERPRISES
	HURNG, TINA J
10555	CLARK, JOSEPH W
10560	MATSUMOTO, PETER D
10570	HALSETH, NIVYA M
10571	HAYES, JASON R
10580	KOPALLE, MADHU N
10600	CHEN, YAN
	GERRY BROWN ASSOC LLC
10610	PURDY, BRONSON H
10625	AGUILAR, E
	DUNCAN, KENNY
10627	PERKINS, ALBERTA A
10629	STEVENS CREEK MARKET AND VIDEO
10631	ESTAMPAS CAFE
10635	JUDYS KITCHEN

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STEVENS CANYON RD 2010

10645	DEWAN, JAHANGIR H
	INVISION DESIGN SYSTEMS INC
	SBIT INC
10655	TAO, TEH Y
10685	FENG, YOULIN
10688	CHU, HENRY P
10692	HU, SABRINA C
10696	HAYES, CHRISTOPHER
10700	HAN, YI I
10704	LEE, HANSEN
10708	OCCUPANT UNKNOWN,
10712	PAYNE, JEFF
10716	RUSTAGI, AMIT
	STEVENS CYN VILLAS OWNERS ASSN
10720	KUMARASAMY, SANKAR
10724	JOU, M
10728	SHEN, HELEN C
10732	OCCUPANT UNKNOWN,
10736	KRISHNAMURTHY, SMITHA S
10740	KILBOURN, CHRISTOPHER R
10744	THAKKER, SAILESH R
10750	HERRON, EVELYN B
	STALLCOP, JAMES R
	VALDEZ, MARIO A
10751	TROIANO, MICHAEL L
10760	OCCUPANT UNKNOWN,
10762	BRYANTECH INC
	OCCUPANT UNKNOWN,
10764	MARCROFT, CAROL
10770	CABALLERO, VICTOR B
	THWINS SOLUTIONS INC
10772	SET INDUSTRIES CORPORATION
	THOMAS, MARK S
10773	BALDE, MARINKO
10774	JAMMU, BABI
10775	OCCUPANT UNKNOWN,
10825	POTHINENI, RAVI C
10875	VALOUEV, ANTON
10950	RAMCHANDANI, RAJESH G
10952	OCCUPANT UNKNOWN,
10954	TING, EDWARD Y
11041	FOXGLOVE INFORMATICS LLC
	OCCUPANT UNKNOWN,
11401	SANTA CLARA COUNTY OF
11998	SUNNYDALE ROD & GUN CLUB INC
12100	BROOKSIDE STABLES
	BROOM SERVICE INC
	STEVENS CREEK QUARRY INC
	VOSS RICH TRUCKING INC
13325	CANYON RIVER

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STEVENS CANYON RD 2010 (Cont'd)

13325	CONSIGNY, DEBBIE R
	CONSIGNY, MARC P
13326	FORESTRY AND FIRE PROTECTION
13851	VIA REHABILITATION SVCS INC
13871	RICK WEBER
15527	CHAN, THOMAS
	SOLAR COLOR LAB
15531	AHLERS, MARTIN
	AVOKA USA INC
	COCHELL, JASON
	VILAIN, PATRICK J
	WHITEHILL CONSULTING
15541	WHITEHILL, MELISSA
15555	HALL REBECCA M
	HALL RICHARD ALAN
	HALL, RICHARD A
15601	OCCUPANT UNKNOWN,
15602	CUNHA, TERESA
15630	HARTWIG, DEBRA J
	HOGUE, MICHAEL J
	HOWARD, MIKE D
	KELLNER, GEARY R
	OLINGER, CLIFFORD J
15851	WILLIAMS, SHIRLEY J
15853	FLEWELLING KIP
	FLEWELLING, KIP K
16201	KAIN PERFORMANCE LLC
	KAIN, PETER K
16221	WONG, DOUGLAS J
16280	OCCUPANT UNKNOWN,
16301	M S JOSSELYNS DESIGNS
	OCCUPANT UNKNOWN,
16360	ALEXANDER, J P
	MACKELL MULTIMEDIA
16500	KIDD, AARON J
16530	KING, JENNIE S
16531	CUNNINGHAM, KERRY L
16790	SAKELLAR, ROBERT T
16891	KAUK, PRESTON L
17251	OCCUPANT UNKNOWN,
17281	COLLINS, JACQUELINE J
17285	LA, V T
17287	ADAMS KAREN E
	POWELL, KERMIT H
17288	HSA ENGINERRING INC
	HURLEY, BARBARA N
	SAWYER KEVIN ANDREW
	SAWYER, KEVIN A
17294	ABEGG, ROGER W
17298	WALKER, DALE J

STEVENS CANYON RD 2010 (Cont'd)

17300	HEKKING DEVELOPMENTS
	HEKKING, FRED R
17310	OCCUPANT UNKNOWN,
17320	OCCUPANT UNKNOWN,
17450	AMER INTERNATIONAL MARKETING
	BYRNE, SHERI A
	CLINIC SOLUTIONS
	GOLDMAN, GUSSIE
	HABER, EBEN M
	KAUTH, JACOB H
17592	PADELT, JAIME
17950	JARAMILLO-BUSHONG, BUSHONG
17952	PADELT, PEGGY M
18000	ADAMS, HEATHER D
	ART SUPPORT SERVICES
	PETERSON, KEVIN H
	SMITH, RUSSELL
	STRAUBING, TIM D

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S FOOTHILL BLVD 2005

10550	HURNG ENTERPRISES
	HURNG, JYH M
10555	CLARK, JOSEPH W
10560	MATSUMOTO, PETER D
10570	HALSETH, KEVIN M
10571	OCCUPANT UNKNOWN,
10600	BROWN, GERRY A
	GERRY BROWN ASSOC LLC
10610	PURDY, BRONSON H
10625	CURVES INTERNATIONAL INC
10627	OCCUPANT UNKNOWN,
10629	STEVENS CREEK MARKET AND VIDEO
10633	GUSTAVOS HAIR BY DESIGN
	NEFS HAIR DESIGN
10635	JUDYS KITCHEN

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STEVENS CANYON RD 2005

10645	ISLAM, JAHANGIR H
10655	TAO, TEH Y
10684	DTV SYSTEMS CORP
	SHRADER, RAND
10685	WONG, LEE L
10700	HOFFMANS RESTORATION
	HUSEY, DONNA
10716	VANCHIYIL, RENY J
10730	CASIPE, RONALD
10744	BATZ, BRIAN
	KANG, MIHAE
10750	LEIMER, SHEILA
	STALLCOP, JAMES R
10751	OCCUPANT UNKNOWN,
10760	PALLEKONDA, VINAY
10764	MYNUDDIN, RIYAN
10770	SHEPARD, WALTER C
10772	THOMAS, MARK S
10774	BUCKLER, SUDAPORN T
10775	BALDE, MARINKO
10805	SAYRE, DEAN M
10825	COBARRUVIAZ, MARIA L
10875	CARROLL, CATHLEEN N
10950	MOONEY, MIKE
10954	JACKSON, WILLIAM E
11041	FOXGLOVE INFORMATICS LLC
	RUIZ, FRANK
11401	OCCUPANT UNKNOWN,
11998	SUNNYVALE ROD & GUN CLUB INC
12100	BROOKSIDE STABLES
	BROOM SERVICE INC
	STEVENS CREEK QUARRY INC
	VOSS RICH TRUCKING INC
13326	FORESTRY FIRE PRTCTION CA DEPT
13851	CRIPPLED CHILDRENS SOC SCLAR
	FRAZIER, DEBORAH C
	VIA REHABILITATION SERVICES
15527	HEPFER, PAUL C
15531	AHLERS, MARTIN
	OCCUPANT UNKNOWN,
15541	WHITEHILL, MELISSA
15555	HALL REBECCA M
	HALL RICHARD ALAN
	HALL, RICHARD A
15601	OCCUPANT UNKNOWN,
	WOLFES GUIDE SERVICE
15624	BLAKE, DUANE A
15630	HOGUE, MICHAEL
	KELLNER, YVONNE
	MAHONEY, TONY

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STEVENS CANYON RD 2005 (Cont'd)

15630	WESTBROOK, KENT R
15851	WILLIAMS, SHIRLEY J
15853	FLEWELLING, KIP K
16201	KAIN, PETER K
16221	WONG, DOUGLAS J
16280	WESTBROOK, BRYANT D
16301	ARTFUL EMBROIDERY BY JOSSELYN
	JOSSELYN, MAX M
16390	CURTO, SAM E
16500	WILDER, MICHAEL C
16530	OCCUPANT UNKNOWN,
16531	CUNNINGHAM, KERRY L
16790	CHIRI, MARION B
16890	GUNETTI, HARRY C
16891	JONES, BERNICE G
17005	JANE O STUDIO INC
	OCCUPANT UNKNOWN,
17251	LYSONS, SYDNEY
17281	KRUIEN, JAMES A
17288	HSA ENGINERRING INC
	HURLEY, BARBARA N
	SAWYER KEVIN ANDREW
17294	ABEGG, ROGER W
17298	WALKER, DALE J
17300	HEKKINGS, DARCY
	MCROY, ANGELA S
	OCCUPANT UNKNOWN,
	SAMWAYS, SCOTT
17450	AMER INTERNATIONAL MARKETING
	BYRNE, SHERI A
	HABER, EBEN M
17580	MELVIN, DONALD L
17592	PADELT, JAIME
17950	JARAMILLO-BUSHONG, BUSHONG
17952	PADELT, PEGGY
18000	BLAKE, AMANDA J
	LOBNER-STAGER, DARLENE
	MIDPENINSULA, REGIONAL O
	PETERSON, KEVIN
	SMITH, RUSSELL
	WAGGONER, DENNIS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S FOOTHILL BLVD 2000

10535	WERNER, T
10550	OCCUPANT UNKNOWN,
10555	CLARK, JOSEPH
10560	MATSUMOTO, PETER D
10570	MELUM, CYNTHIA D
10571	HOLDBROOK, KALON
10580	SWANSON, RON E
10600	BROWN, GERRY A
10610	PURCOR INC
	PURDY, BRONSON
10625	BRUSCHETTAS PIZZA
10629	STEVENS CREEK MARKET AND VIDEO
10633	NEFS HAIR DESIGN
10635	JUDYS KITCHEN

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STEVENS CANYON RD 2000

10645	GREER, JEFF A
10684	WHITE, ALAN
10685	WONG, LEE L
10700	RHEE, JIN K
10716	MONTEON, JORGE
	MOYER, ANDREW R
	SANTA, M
	WORTHAM, BELINDA M
10744	WU, MENGJIN
10750	CONWAY, SUZANNE S
	FLEURY, ERIC D
	STALLCOP, JAMES R
10751	TROIANO, MICHAEL
10760	BOLTON, ANGELA
10762	SMITH, MARILYN
	SMITY, MARALYN J
10764	OCCUPANT UNKNOWN,
10770	ARTH
	OCCUPANT UNKNOWN,
10772	HANSEN, RUSSELL D
10774	OCCUPANT UNKNOWN,
10775	BALDE, MARINKO
10805	SAYRE, DEAN M
10825	COBARRUVIAZ, MARIA L
10875	OCCUPANT UNKNOWN,
10885	NAMVAR, PARVIZ
10950	OCCUPANT UNKNOWN,
10954	JACKSON, WILLIAM E
11401	SANTA CLARA COUNTY OF
11998	SUNNYVALE ROD & GUN CLUB INC
12100	BROOKSIDE STABLES
	BROOM SERVICE INC
	JENSEN ROSS
	JENSEN, ROSS
	STEVENS CREEK QUARRY INC
	VOSS RICH TRUCKING INC
	VOSS, RICHARD
	WESTLAKE, JOHN
13325	RODRIGUES, STEVE M
13851	CONTRERAS, F C
	VIA REHABILITATION SERVICES
15527	SOLAR COLOR LAB
15531	DICKMAN, E
15555	HALL, RICHARD A
15600	OCCUPANT UNKNOWN,
15601	OCCUPANT UNKNOWN,
15630	FORD, EDMOND J
	SABIN, LINDA B
16201	KAIN, SHARI R
16221	OCCUPANT UNKNOWN,

STEVENS CANYON RD 2000 (Cont'd)

16280	WESTBROOK, BRYANT
16301	JOSSELYN, MAX
16360	MILLEN, JEFFREY W
16390	ROBERTS, MARY L
16530	OCCUPANT UNKNOWN,
16531	BRUMLEY, WILLIAM R
	ERNST, KENDRA L
16790	ELY, ROBERT E
16890	GUNETTI, HARRY C
17005	OCCUPANT UNKNOWN,
17251	OCCUPANT UNKNOWN,
17281	ANDERSON, E N
	KRUIEN, JAMES
	KURIEN, JAMES
	POWELL, K H
	VOSKUHL, RANAE P
17287	OCCUPANT UNKNOWN,
17288	GROSVENOR, CYNTHIA A
17294	ABEGG, ROGER
17450	VILLASENOR, DAVID
17580	MELVIN, DONALD
17950	JARAMILLO, BUSHONG M
17952	PADELT, PEGGY
18000	ALEXANDER, SHANNON L
	LANDMARK PAINTING CO
	RUTH, S

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S FOOTHILL BLVD 1995

10535	WERNER, T
10550	AHANIN, BAHRAM
10555	HONG, KI
10560	MATSUMOTO, PETER
10571	HOLDBROOK, KALON
10580	SWANSON, RON E
10625	APOLLO PIZZA
10627	OCCUPANT UNKNOWNN
10629	RAYS QUALITY MEATS
	RAYS QUALITY MEATS & DELI
	STEVENS CREEK MARKET
10631	CANYON VIDEO
10633	NEFS HAIR DESIGN

STEVENS CANYON RD 1995

10730	BRAULT, DAN
	TESSIER, JEFF
	THOMAS, SCOTT
10750	BURKE, PATRICK
	STALLCOP, JAMES R
10751	TROIANO, MICHAEL
10760	STRANAHAN, CRAIG C
10762	SMITH, MARILYN
10764	MIZRAHI, M M
10770	OCCUPANT UNKNOWNN
10772	REYNOLDS, ROBERT
10805	SAYRE, DEAN M
10825	OCCUPANT UNKNOWNN
10885	NAMVAR, PARVIZ
10950	OCCUPANT UNKNOWNN
10954	JACKSON, WILLIAM E JR
11401	SANTA CLARA COUNTY OF
12100	BROOKSIDE STABLES
	BROOM SERVICE INC
	STEVENS CREEK QUARRY INC
	VOSS RICH TRUCKING INC
13851	CRIPPLED CHLD SOC OF NTHRN CAL
15527	SOLAR COLOR LAB
16221	WONG, DOUGLAS
16280	WESTBROOK, BRYANT
16301	JOSSELYN, MAX
16360	OCCUPANT UNKNOWNN
16390	OCCUPANT UNKNOWNN
16530	POSPISIL, RICHARD
16531	BRUMLEY, WILLIAM R
	ERNST, KENDRA L
16790	CHIRI, MARION
16890	GUNETTI, HARRY C
16891	JONES, S
17281	HOLT, ROBERT
	JUTSON, CRAIG
	NICHOL, MARK
	POWELL, K H
17287	POWELL, KERMIT H
17288	OCCUPANT UNKNOWNN
17294	ABEGG, ROGER
17298	WALKER, C P
17300	JENKINS, PAMELA
17450	VILLASENOR, DAVID
17580	MELVIN, DONALD
17950	JARAMILLO, E
17952	PADELT, PEGGY
18000	HANNA, SHAWN

Target Street	**Cross Street**	**Source**
✓	-	EDR Digital Archive

S FOOTHILL BLVD 1992

10414	EDWARD KLEIN PIANO TUNER
10515	CHENS IMPORT & EXPORT
10535	WERNER, T
10550	AHANIN, BAHRAM
10580	SWANSON, RON E
10625	V JS PIZZA
10627	ROBERTS, CARL P SR
10629	RAYS QUALITY MEATS
	RAYS QUALITY MEATS & DELI
	STEVENS CREEK MARKET
10631	CANYON VIDEO
10633	NEFS HAIR DESIGN

STEVENS CANYON RD 1992

10645	MOON, SUNG
10655	KNUTSON, MARTIN
10716	E V P ENTERTAINMENT
10730	DELATORRE, HEIDI
	TESSIER, JEFF
10744	TRUJILLO, TROY
10751	TROIANO, MICHAEL
10762	BROVETTO, GARY
	SMITH, MARILYN
10772	SHEPARD, WALTER C III
10805	SAYRE, DEAN M
10885	DUMERY, C
	NAMVAR, PARVIZ
10950	WARDELL, REX D
10954	JACKSON, WILLIAM E
11401	SANTA CLARA COUNTY OF
12100	BROOKSIDE STABLES
	BROOM SERVICE INC
	HALE, HARRIET
	REGNART, HERBERT
	STEVENS CREEK QUARRY INC
	VOSS RICH TRUCKING INC
	VOSS, R
13325	CONSIGNY, PETER J
13851	CAMP, C
	CRIPPLED CHLD SOC OF NTHRN CAL
15527	EDEN VALLEY GARDENING
	SOLAR COLOR LAB
15531	DICKMAN, E
15555	HALL, RICHARD A
15601	ESPINOSA AUTO ELECTRIC
	HALL, E G
15630	KELLNER, GARY
16201	JEWELL, SPENCER
16221	WONG, DOUGLAS
16280	WESTBROOK, BRYANT
16301	JOSSELYN, MAX
16531	BRUMLEY, WILLIAM R
16891	JONES, S
17281	EHLERS CONSTRUCTION
	HOLT, ROBERT
	STEVENS, M
17294	ABEGG, ROGER
17450	VILLASENOR, DAVID
17580	MELVIN, DONALD
17952	PADELT, JIM

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

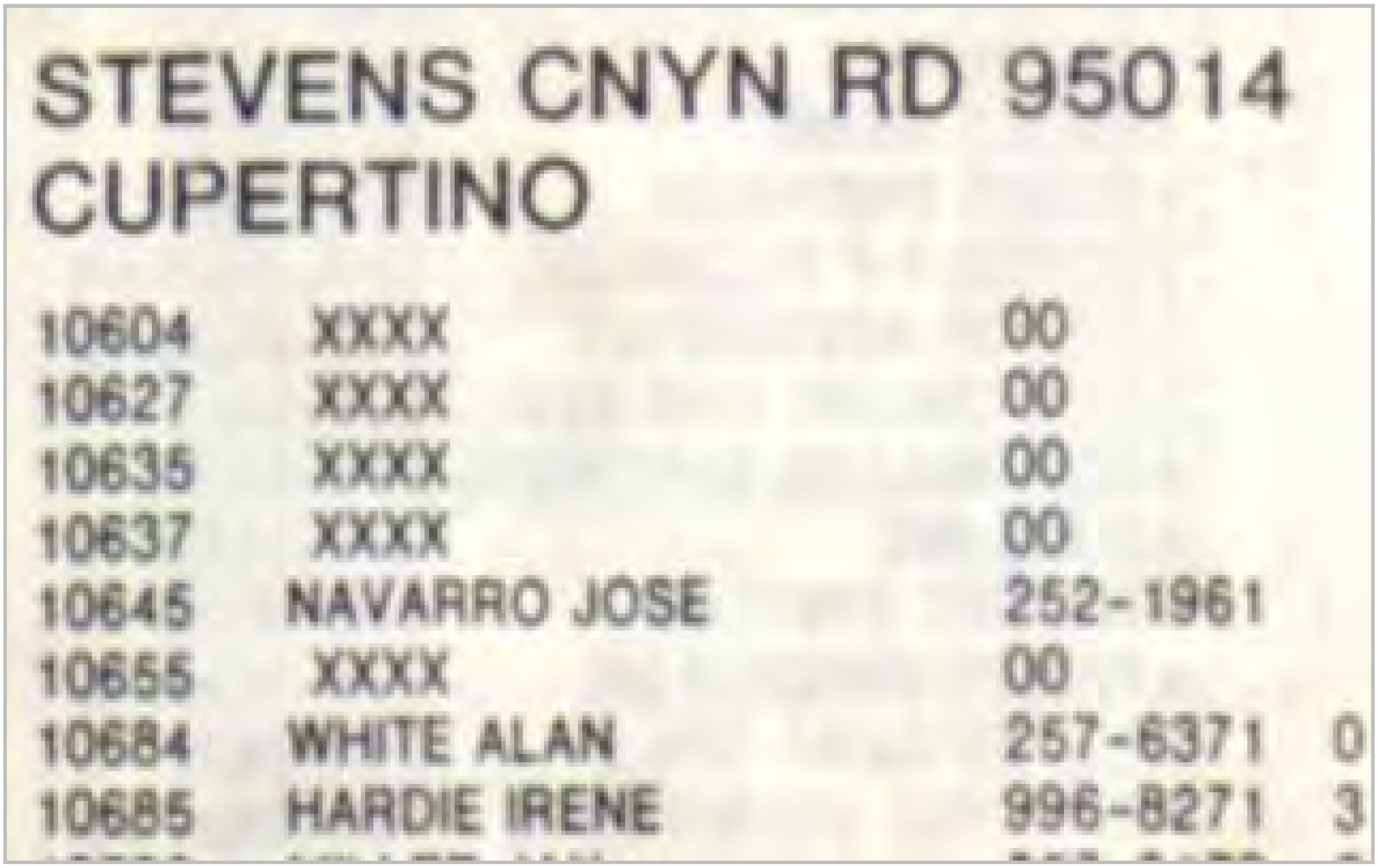
S FOOTHILL BLVD 1986

10531	TEAS M H	255-2636	5
10535	WERNER T	257-5076	0
10570	★**OUTHAUS DART PUB**	**725-9420**	1
10585	XXXX	00	
10600	LINDSAY SALLY C	725-1795	
	LINDSAY WM S	725-1795	5
10610	WOLFE M L	257-5376	4
10625	GARZA L	253-9003	5
	★**V JS PIZZA**	**725-8353**	2
10627	ROBERTS CARL P SR	252-6332	3
10629	★**STEVENS CRK MKT**	**252-3688**	
10631	★**C L&L REALTY**	**996-7595**	8
10633	★**NEFS HAIR DESIGN**	**257-4700**	
10635	★**LITTLE LANTERN HSE**	**253-3934**	+6

★ 9 BUS 28 RES 4 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

STEVENS CANYON RD 1986

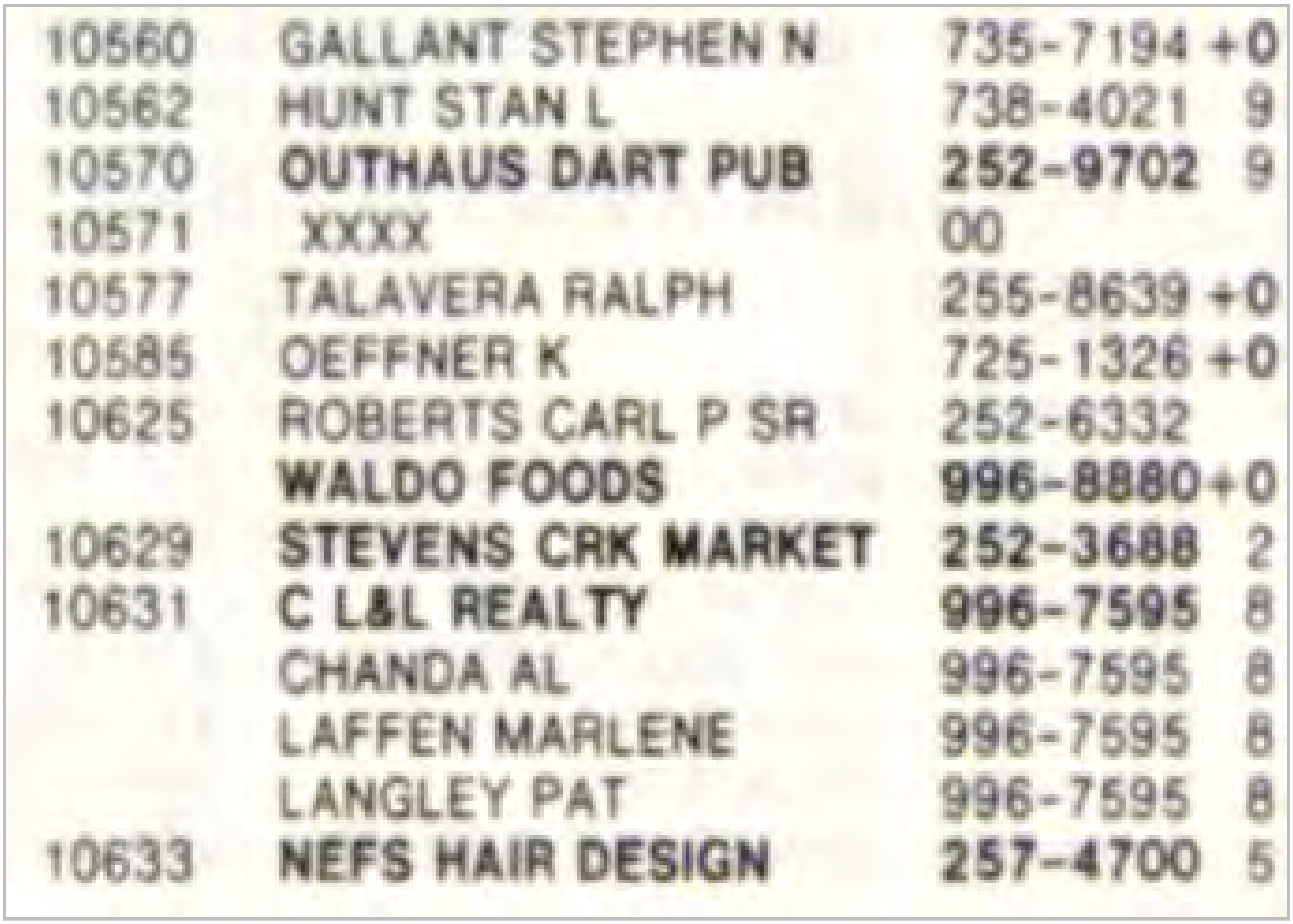


STEVENS CNYN RD 95014 CUPERTINO

10604	XXXX	00	
10627	XXXX	00	
10635	XXXX	00	
10637	XXXX	00	
10645	NAVARRO JOSE	252-1961	
10655	XXXX	00	
10684	WHITE ALAN	257-6371	0
10685	HARDIE IRENE	996-8271	3

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

S FOOTHILL BLVD 1980



10560	GALLANT STEPHEN N	735-7194	+0
10562	HUNT STAN L	738-4021	9
10570	**OUTHAUS DART PUB**	**252-9702**	9
10571	XXXX	00	
10577	TALAVERA RALPH	255-8639	+0
10585	OEFFNER K	725-1326	+0
10625	ROBERTS CARL P SR	252-6332	
	WALDO FOODS	**996-8880**	+0
10629	**STEVENS CRK MARKET**	**252-3688**	2
10631	**C L&L REALTY**	**996-7595**	8
	CHANDA AL	996-7595	8
	LAFFEN MARLENE	996-7595	8
	LANGLEY PAT	996-7595	8
10633	**NEFS HAIR DESIGN**	**257-4700**	5

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

S FOOTHILL BLVD 1980

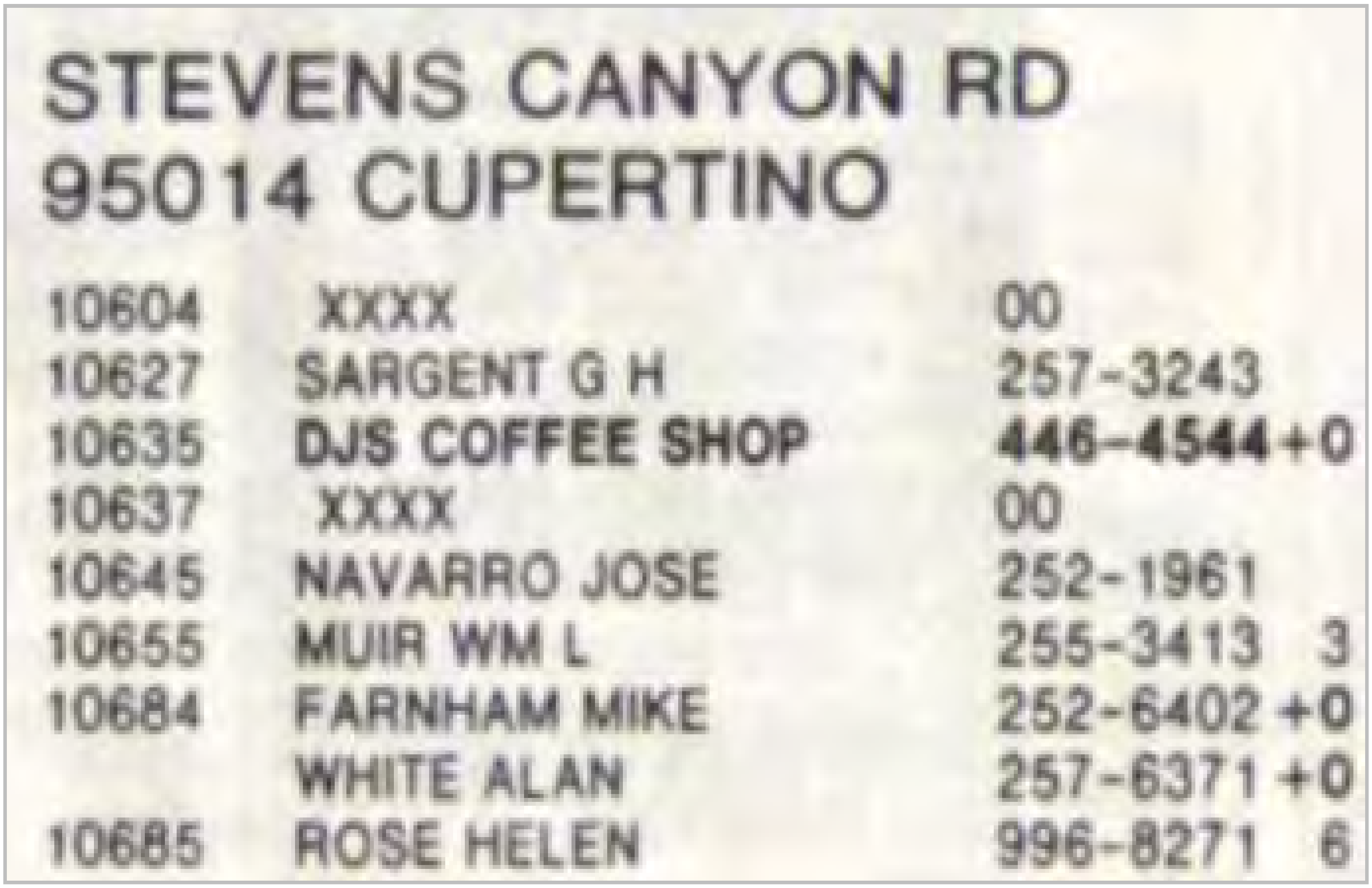
..FOOTHILL BLVD 95014 CONT

10635 XXXX 00

★ 12 BUS 125 RES 42 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

STEVENS CANYON RD 1980

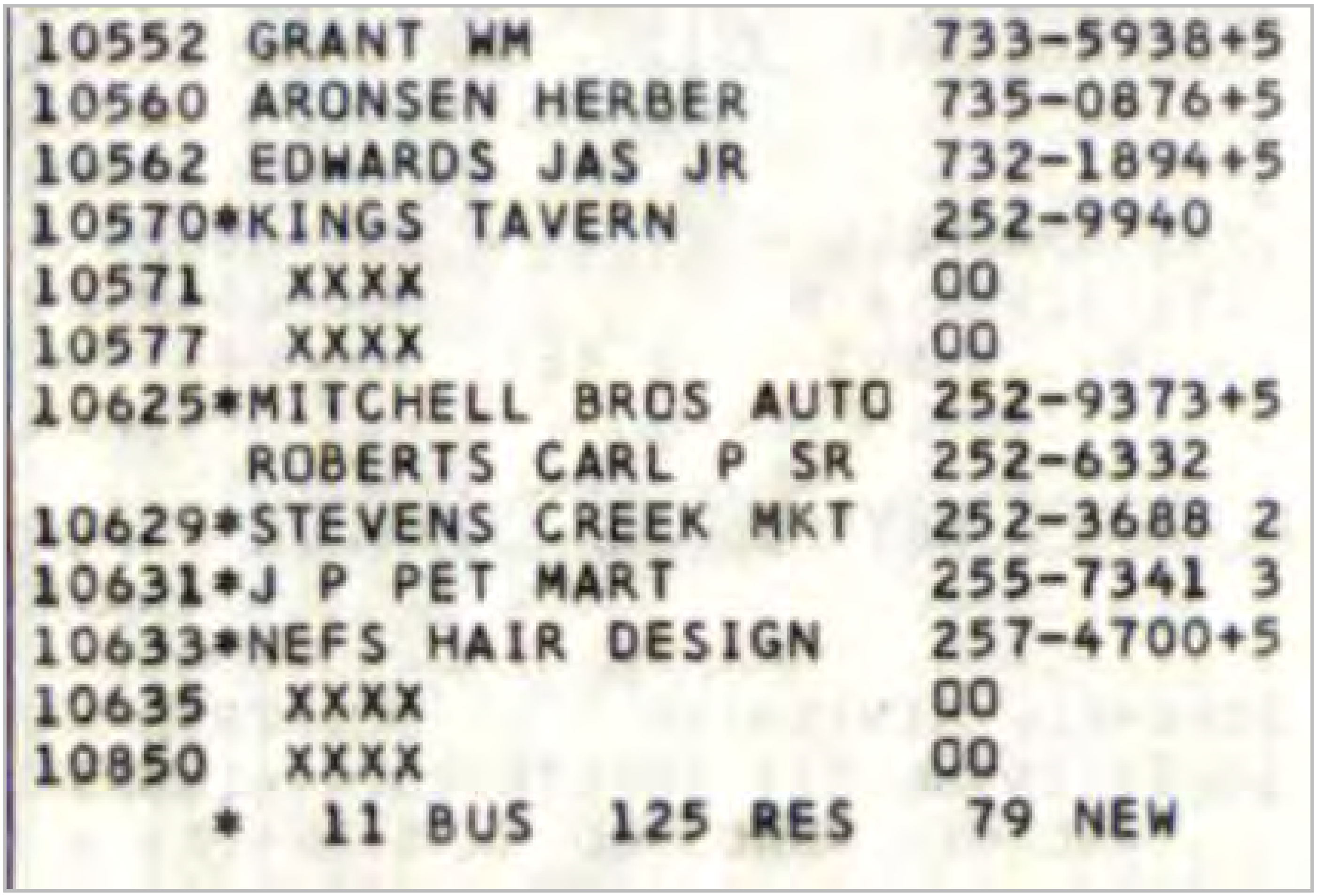


STEVENS CANYON RD
95014 CUPERTINO

10604	XXXX	00	
10627	SARGENT G H	257-3243	
10635	**DJS COFFEE SHOP**	**446-4544**	+0
10637	XXXX	00	
10645	NAVARRO JOSE	252-1961	
10655	MUIR WM L	255-3413	3
10684	FARNHAM MIKE	252-6402	+0
	WHITE ALAN	257-6371	+0
10685	ROSE HELEN	996-8271	6

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

S FOOTHILL BLVD 1975

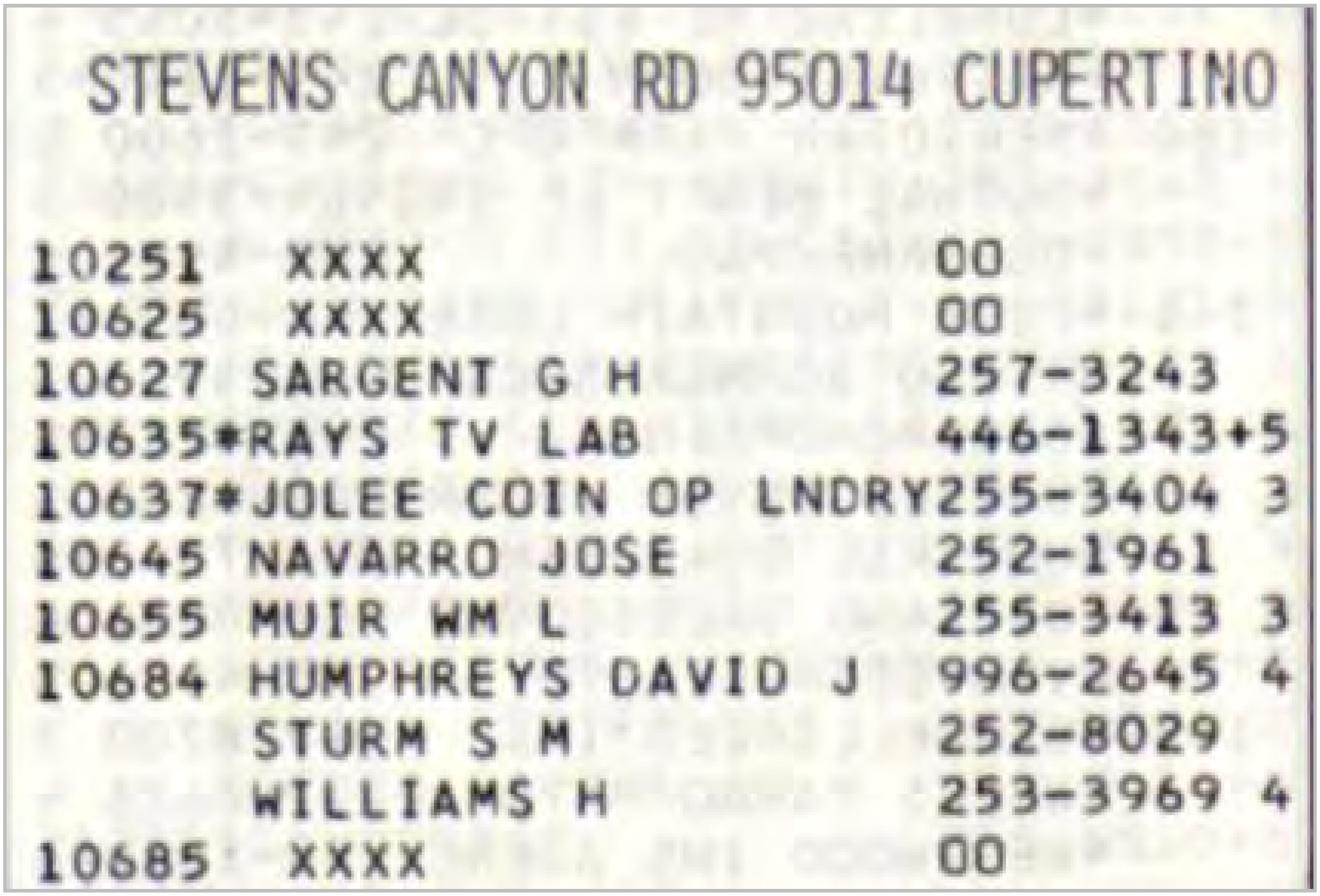


10552	GRANT WM	733-5938+5
10560	ARONSEN HERBER	735-0876+5
10562	EDWARDS JAS JR	732-1894+5
10570*	KINGS TAVERN	252-9940
10571	XXXX	00
10577	XXXX	00
10625*	MITCHELL BROS AUTO	252-9373+5
	ROBERTS CARL P SR	252-6332
10629*	STEVENS CREEK MKT	252-3688 2
10631*	J P PET MART	255-7341 3
10633*	NEFS HAIR DESIGN	257-4700+5
10635	XXXX	00
10850	XXXX	00

* 11 BUS 125 RES 79 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

STEVENS CANYON RD 1975

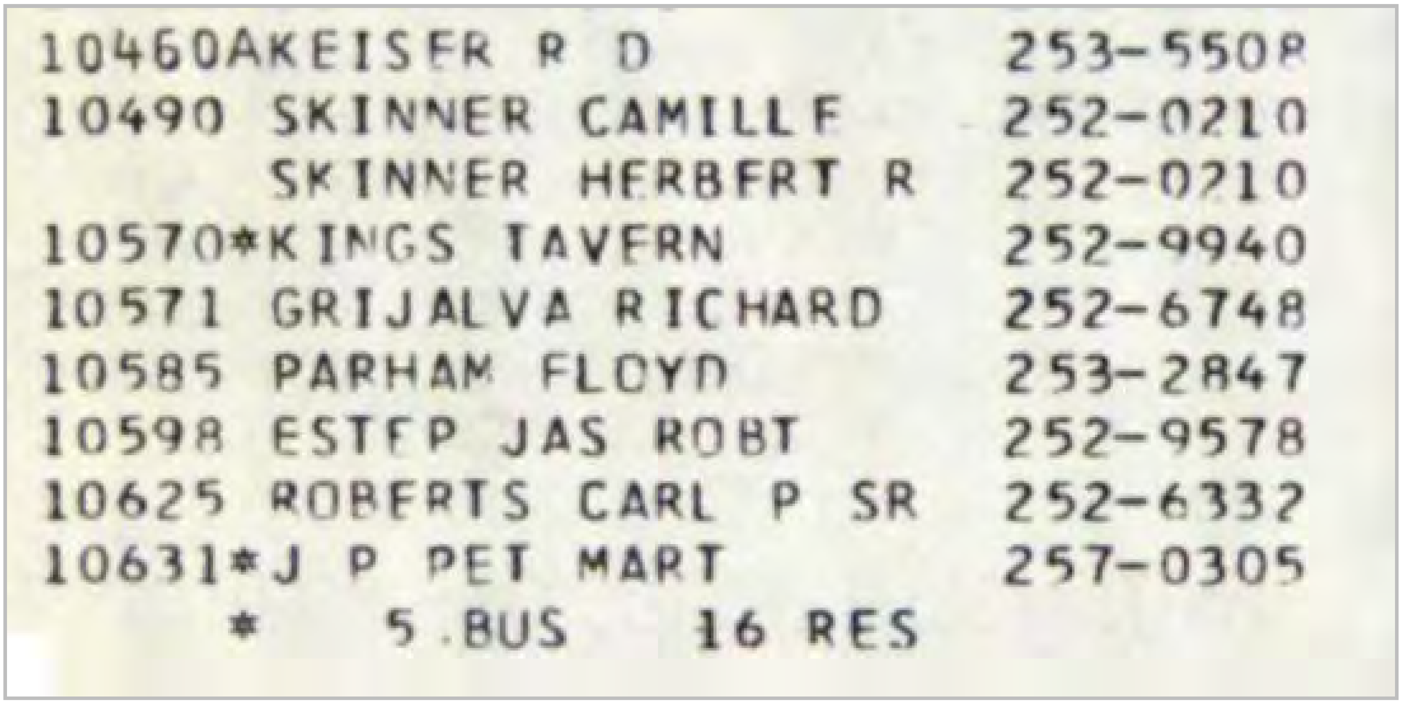


STEVENS CANYON RD 95014 CUPERTINO

10251	XXXX	00	
10625	XXXX	00	
10627	SARGENT G H	257-3243	
10635*	RAYS TV LAB	446-1343	+5
10637*	JOLEE COIN OP LNDRY	255-3404	3
10645	NAVARRO JOSE	252-1961	
10655	MUIR WM L	255-3413	3
10684	HUMPHREYS DAVID J	996-2645	4
	STURM S M	252-8029	
	WILLIAMS H	253-3969	4
10685	XXXX	00	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

S FOOTHILL BLVD 1970



10460A	KEISER R D	253-5508
10490	SKINNER CAMILLE	252-0210
	SKINNER HERBERT R	252-0210
10570*	KINGS TAVERN	252-9940
10571	GRIJALVA RICHARD	252-6748
10585	PARHAM FLOYD	253-2847
10598	ESTEP JAS ROBT	252-9578
10625	ROBERTS CARL P SR	252-6332
10631*	J P PET MART	257-0305

* 5 BUS 16 RES

APPENDIX I
EDR Property Tax Maps

10625-10637 Stevens Canyon Road
10625 S Foothill Boulevard
Cupertino, CA 95014

Inquiry Number: 5134350.6
December 11, 2017

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

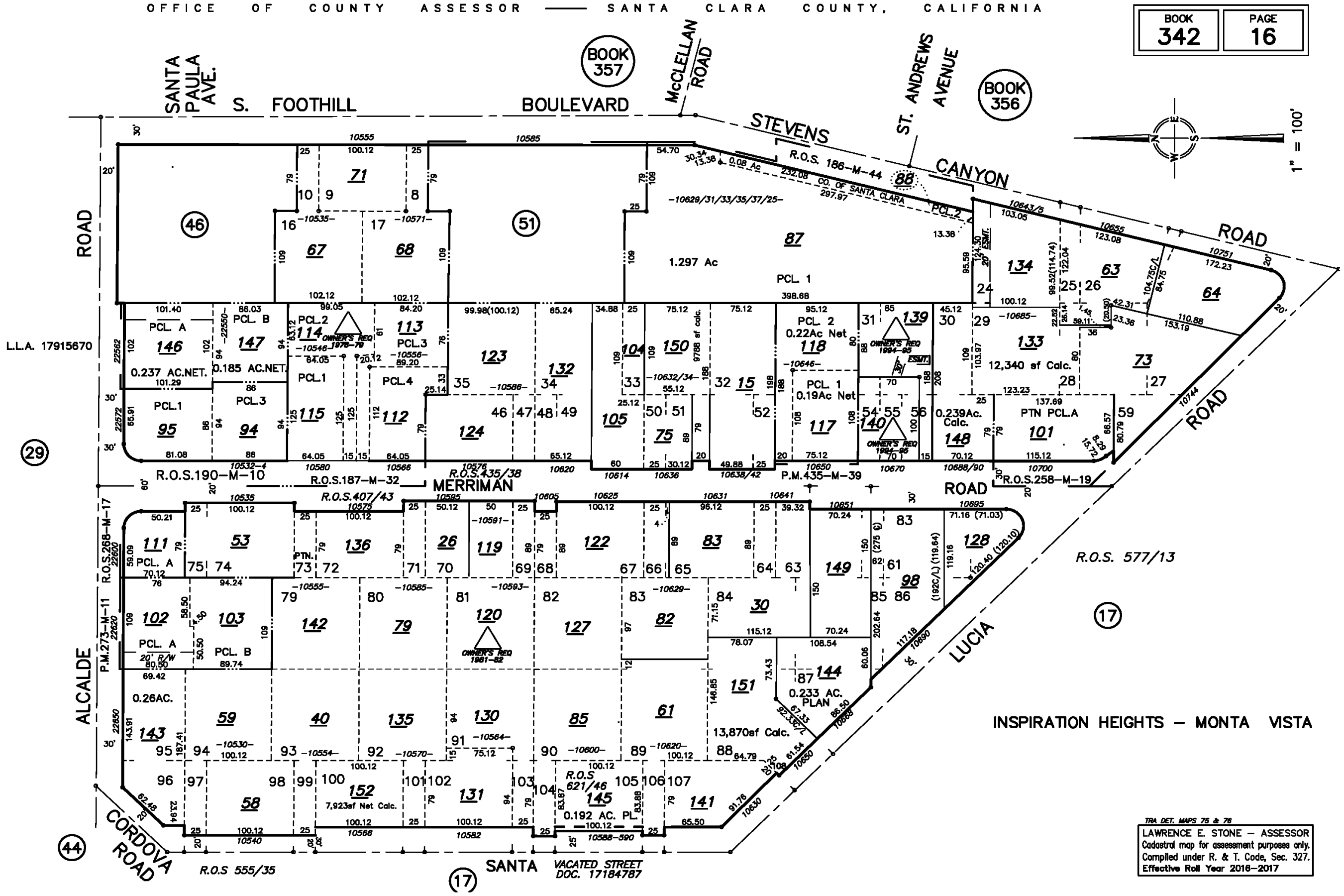
EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

OFFICE OF COUNTY ASSESSOR — SANTA CLARA COUNTY, CALIFORNIA

BOOK	PAGE
342	16



TRA DET. MAPS 75 & 76

LAWRENCE E. STONE — ASSESSOR
Cadastral map for assessment purposes only.
Compiled under R. & T. Code, Sec. 327.
Effective Roll Year 2016-2017

APPENDIX J
Land Use Restrictions

10625-10637 Stevens Canyon Road
10625 S Foothill Boulevard
Cupertino, CA 95014

Inquiry Number: 5134350.7
December 13, 2017

EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:
- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

10625 S Foothill Boulevard
10625-10637 Stevens Canyon Road
Cupertino, CA 95014

RESEARCH SOURCE

Source 1:

Santa Clara Recorder
Santa Clara, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	SCR Enterprises LLC
Title received from:	Gordon R Beckstrom Trustee
Deed Dated	7/29/2014
Deed Recorded:	7/31/2014
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	SCR Enterprises LLC
Parcel # / Property Identifier:	342-16-087
Comments:	See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

RECORDING REQUESTED BY:

Old Republic Title Company

Order No.: 0616011152-
APN: 342-16-087

When Recorded Mail Document and Tax Statements to:

SCR Enterprises, LLC
15700 Winchester Boulevard
Los Gatos, CA 95030

DOCUMENT: 22667495

Pages:	2
Fees ..	18.00
Taxes.	2530.00
Copies..	
AMT PAID	2548.00

REGINA ALCOMENDRAS
SANTA CLARA COUNTY RECORDER
Recorded at the request of
Old Republic Title Company

RDE # 006
7/31/2014
1:30 PM

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

Grant Deed

S. Evans, Declarant

The undersigned grantor(s) declare(s):
Documentary Transfer Tax is $2,530.00
(X) computed on full value of property conveyed, or
( ) computed on full value less of liens and encumbrances remaining at time of sale.
( ) Unincorporated area: (X) City of Cupertino

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
Gordon R. Beckstrom, Successor Trustee of The Beckstrom Family Trust, created on January 10, 1992

hereby GRANT(S) to
SCR Enterprises, LLC, a California limited liability company

that property in City of Cupertino, Santa Clara County, State of California, described as:
* * * See "Exhibit A" attached hereto and made a part hereof. * * *

Date: July 29, 2014

The Beckstrom Family Trust, created on January 10, 1992

By: Gordon Beckstrom
Gordon R. Beckstrom, Trustee

State of California

County of Santa Clara

On July 30, 2014 before me, Sharon La Fountain Evans, a Notary Public, personally appeared Gordon R. Berkstrom, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Name Sharon La Fountain Evans
(typed or printed)

SHARON LA FOUNTAIN EVANS
Commission # 1927519
Notary Public - California
Santa Clara County
My Comm. Expires Mar 31, 2015

(Area reserved for official notarial seal)

MAIL TAX STATEMENTS AS DIRECTED ABOVE

ORDER NO. : 0616011152

EXHIBIT A

The land referred to is situated in the County of Santa Clara, City of Cupertino, State of California, and is described as follows:

City of Cupertino, Santa Clara County, State of California Parcels One and Two as shown on that certain map entitled, "Record of Survey", which Map was filed for record on October 19, 1964 in Book 186 of Maps, at Page(s) 44, Santa Clara County Records.

APN: 342-16-087 and 088

APPENDIX K
Santa Clara County Environmental Health Records

County of Santa Clara

Department of Environmental Health
Hazardous Materials Compliance Division (HMCD)
1555 Berger Drive, Suite 300, San Jose, CA 95112-2716
Phone (408) 918-3400 Fax (408) 280-6479 www.EHinfo.org/hazmat

OFFICIAL NOTICE OF INSPECTION

Facility ID: FA0279145
Inspection Date: 03/22/2017
Facility Name: CUPERTINO BIKE SHOP
Site Address: 10625 S FOOTHILL BL, CUPERTINO, CA 95014

HW Generator Type: <100 KG/MO.
Consent to Inspect Granted By: PAUL CLEVENGER, MANAGER

☐ **RCRA LQG**
☐ **Pictures Taken**
☐ **Samples Taken**

Summary of Violations & Notice to Comply

Program: PR0421230 - HAZARDOUS WASTE GENERATOR - 2202
Inspection Type: ROUTINE INSPECTION

VC	Class	Violation	Corrective Actions Taken
		No violations were observed during this inspection.	

Comments: On site to conduct a routine hazardous waste inspection.
Facility has 1 aqueous parts washer that is serviced by Safety Klean. Solvent remains in unit until service is requested.

No waste containers were observed on site.

Fire extinguishers have had annual maintenance
Rags are managed by Cintas
Container areas are inspected weekly
Employees are thoroughly familiar with hazardous waste management
Disposal records were reviewed and are in good order
EPA ID#CAL000401644 is active

The following violations were corrected on site:
Emergency information was not posted. Emergency Procedures template was provided and posted during inspection

Immediately correct any violation designated as a Class I or Class II violation. Correct all other violations no later than 04/21/2017, unless otherwise noted by the inspector.

Using the space provided, write a brief description of the actions taken by the facility to correct each violation. Attach additional pages if more space is needed. Within 5 days of achieving compliance or within 35 days of the inspection date, whichever comes first, sign the certification statement below and return a copy of this report to HMCD. Time granted for correction of violations does not preclude any enforcement action by HMCD or other agencies. This facility may be subject to reinspection at any time. [Authority: HSC 25185(c), 25187.8, 25404.1.2(c)]

Received By: vance sprock
owner

Inspected By: EE0010435 - LOREN LIM

Certification of Compliance

I certify under penalty of perjury that this facility has complied with directives specified in this Notice to Comply.

Signature of Owner/Operator
Date

Printed Name of Owner/Operator
Title

REVIEWED
By Mickey at 8:38 am, Apr 10, 2017

OFFICIAL NOTICE OF INSPECTION - SUPPLEMENTAL INFORMATION

This Official Notice of Inspection (NOI) documents the results of an inspection by HMCD, including a list of alleged violations, evidence in support of the alleged violations, corrective actions that must be taken by the facility, and general observations.

What am I supposed to do upon receiving a NOI?

- Correct the violations within 30 days of the inspection date, unless otherwise noted.
- In the “Corrective Actions Taken” column, write a brief description of the actions taken by the facility to correct each violation. Attach additional pages if more space is needed.
- Certify that the facility has returned to compliance by signing and dating the certification statement at the end of the report.
- Make a photocopy of the NOI and any attachments for your records.
- Within 5 days of achieving compliance or 35 days of the inspection date, whichever comes first, return the original copy of the report and any attachments to HMCD at 1555 Berger Drive, Suite 300, San Jose, CA 95112-2716.

What if there are violations that cannot be corrected within 30 days?

For each violation that cannot be corrected within 30 days, submit a written Compliance Plan describing the corrective actions you propose to take and the date by which the actions will be completed. State law grants up to 30 days to correct minor violations without penalty. Minor violations that are uncorrected after 30 days, and class I and II violations may be subject to enforcement action. To lessen the possibility of enforcement action, correct all violations as soon as possible.

What if I disagree with a violation on the NOI?

If you disagree with any violation listed in this NOI, you must submit a written Notice of Disagreement to HMCD within 30 days of the inspection date. Address such notices to the attention of the inspector who cited the violation. In your Notice of Disagreement, explain in detail why you believe the alleged violation was incorrectly cited.

What about photographs or samples taken during the inspection?

A co-located sample will be given to you upon request if adequate sample volume is available. Photographs and sample analytical results will not generally be available until after the inspection has been concluded. A copy of photographs and/or analytical results will be provided to you upon written request. Photographs and sample analytical results may be withheld in the event of a criminal investigation or other ongoing investigation.

Key to Acronyms and Regulatory Terms

XX CCR	California Code of Regulations, Title XX
XX CFR	Code of Federal Regulations, Title XX
Class	Violation classification: I = Class I violation, II = Class II violation, M = Minor violation, C = Corrected minor violation [HSC §25110.8.5, HSC §25117.6, CCR §66260.10]
DTSC	California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
HMCD	County of Santa Clara, Department of Environmental Health, Hazardous Materials Compliance Division
HSC	California Health and Safety Code
RCRA	Resource Conservation and Recovery Act
SCCO	Santa Clara County Ordinance Code
TSDF	Hazardous waste treatment, storage or disposal facility
UPCF	Unified Program Consolidated Form
UST	Underground storage tank
VC	HMCD violation code

Warning:

- It is a violation of State law to make a false statement that a facility has returned to compliance [HSC §25404.1.2(c)(2)].
- Making a false statement regarding a hazardous waste violation is punishable by a fine of not less than $2,000 or more than $25,000 and/or imprisonment in the county jail for up to one year [HSC §25191(b)].
- Making a false statement regarding an underground storage tank violation is punishable by a fine of not less than $500 or more than $5,000 [HSC § §25299(a)(8), 25299(b)(7)].
- HMCD has the right to require the submittal of reasonable and necessary documentation in support of any claim of compliance made by your facility [HSC §25187.8(i)].

HMCD-014A **www.EHinfo.org/hazmat** **Rev. 07/28/10**

APPLICATION CODING AND COMPUTER INPUT DOCUMENT (ACCID)

Facility ID: **Owner ID:** **CERS ID:**

Facility Name: **Site Address:**

☐ Close Facility

Unless specified below, all records will be inactivated, outstanding charges will be reversed, and the account will be inactivated.

☐ Leave charges in place and keep account open.

☒ Add Facility

Unless specified below, new owner and facility records will be created using the application/information attached, or as provided below.

☐ Link new facility to existing owner: ______

● No changes needed ○ Update owner – application/information attached or provided below.

☒ Update Facility, Owner and/or Account Information

Facility Name: **CUPERTINO BIKE SHOP**
CERS ID (Hazmat Only): ______
Care Of: ______
Site Address: **10625 S FOOTHILL BLVD**
Mailing Address: ______
Phone: **(408)255-2217**
Email: **sprocket@cupertinobikeshop.com**
Jurisdiction: ______
City Code: **05 Cupertino**
APN: ______
Fax: ______
Other:

Owner Name(s): **CUPERTINO BIKE SHOP, INC**
Care Of: ______
Mailing Address: **Use facility address** Phone: ______
E-mail: ______

Billing Address: use same as ☒ Owner ☒ Facility
Billing/Account Name: **VANCE SPROCK**
Care Of: ______
Mailing Address: ______
Phone: **(408)255-2217**
E-mail: **sprocket@cupertinobikeshop.com**

☒ Add or Update Related Records and Permits

Record ID	PE	Status	Employee	Other:
NEW	**2205**	**01 - Active**	**Richard Owens**	
NEW	**5001**	**01 - Active**		
NEW	**1850**	**01 - Active**		

☒ Invoice programs:

● Bill now in full ○ Bill later on the existing billing cycle

○ Prorate to establish/maintain permit valid dates of: ______

○ Back-bill charges and back-date permit starting from: ______

☐ Other:

☐ Fiscal Adjustments

Account ID: ______ Balance: ______ ☐ Inactivate account and reverse any charges ☐ Send to collections

☐ Reverse all charges on invoice ID: ______ and rebill with the modifications shown above.

☐ Transfer payment of: ______ from invoice ID: ______ to invoice ID: ______

☐ Add one-time invoice: Qty: ______ x PE: ______ = Total charge: ______ (SR: ______ Comment: ______)

☐ Modify invoice(s):

Invoice ID: ______ Action: ______ Amount: ______ Comment: ______
Invoice ID: ______ Action: ______ Amount: ______ Comment: ______

☐ Other:

Comments (Include the rationale for this data change request, unless clearly identified by attached information.)

☐ This request impacts another program/division/agency.

○ Request approval to proceed ○ Approval already obtained from: ______

Per waste generator permit application, attached.

Prepared by: **Jean Nguyen** Date: **8/27/15**

Authorized by: ______ Entered by: ______

APPROVED

By Greg Breshears at 4:27 pm, Sep 02, 2015

County of Santa Clara
Department of Environmental Health
Hazardous Materials Compliance Division
1555 Berger Drive, Suite 300
San Jose, CA 95112-2716
(408) 918-3400; Fax (408) 280-6479
www.EHinfo.org/hazmat

RECEIVED BY:
SANTA CLARA COUNTY
DEPT. OF ENV. HEALTH
2015 AUG 17 PM 2:45

1850

HAZARDOUS WASTE GENERATOR PERMIT APPLICATION

☐ First-Time Application
☐ New Owner
☒ Business Moved
☐ Change of Information

Business Name (DBA): Cupertino Bike Shop

Site Address: 10625 S. Foothill Blvd City: Cupertino Zip: 95014

Mailing Address: ______ (If different from site address) City: ______ State: ______ Zip: ______

Business Owner Name(s): Vance Sprock (If owner is a corporation, LP, or LLC, note the name exactly as it is registered with the California Secretary of State.)

Proprietor/Billing Contact Name: Vance Sprock (If different from owner.) eMail Address: sprocket@cupertinobike shop.com

Billing Address: ______ (If different from mailing address.) City: ______ State: ______ Zip: ______

Facility Phone No.: (408) 255-2217 Fax No.: ( ) ______ Days/Hours of Operation: 11-7 Tue-Fri

Contact Person: Vance Sprock Contact Phone No.: (408) 255-2217 ext.

Principal Type of Business (e.g., auto repair, photoprocessing): Bicycle Shop

☐ Owned by Individual
☐ Partnership
☒ Corporation or LLC
☐ Other

EPA ID Number: CAL000401644

Hazardous Waste Inventory Information:

The annual permit fee is determined by the total quantity of hazardous waste generated per year. Complete the table below for all hazardous waste inventory *(e.g., used oil, used parts cleaning solvent, waste paint, spent fixer, etc.)*.

Name of Hazardous Waste	Treatment/Disposal Method(s) *(Definitions provided on back of form.)*	Annual Quantity Generated*
Aqueous parts cleaner	☐ Recycled on-site. ☐ Treated on-site. ☒ Shipped off-site for recycling/treatment/disposal.	75to100 ☑ gal. ☐ lbs.
	☐ Recycled on-site. ☐ Treated on-site. ☐ Shipped off-site for recycling/treatment/disposal.	☐ gal. ☐ lbs.
	☐ Recycled on-site. ☐ Treated on-site. ☐ Shipped off-site for recycling/treatment/disposal.	☐ gal. ☐ lbs.
	☐ Recycled on-site. ☐ Treated on-site. ☐ Shipped off-site for recycling/treatment/disposal.	☐ gal. ☐ lbs.
	☐ Recycled on-site. ☐ Treated on-site. ☐ Shipped off-site for recycling/treatment/disposal.	☐ gal. ☐ lbs.
	☐ Recycled on-site. ☐ Treated on-site. ☐ Shipped off-site for recycling/treatment/disposal.	☐ gal. ☐ lbs.
	☐ Recycled on-site. ☐ Treated on-site. ☐ Shipped off-site for recycling/treatment/disposal.	☐ gal. ☐ lbs.

* *Solids must be reported in pounds. Liquids may be reported in either pounds or gallons.*

The undersigned hereby applies for a Hazardous Waste Generator Permit from the County of Santa Clara. I hereby certify that the submitted information is true, accurate, and complete. I understand that a new application will be required if this facility changes ownership, moves, or begins generating hazardous wastes which are not listed on this application.

Signature of Owner/Operator: Vance Sprock Title: ~~7/7/1~~ Owner Date: 8/7/15

HMCD-005 www.EHinfo.org/hazmat Rev. 08/30/10

County of Santa Clara

Department of Environmental Health
Hazardous Materials Compliance Division (HMCD)
1555 Berger Drive, Suite 300, San Jose, CA 95112-2716
Phone (408) 918-3400   Fax (408) 280-6479   www.EHinfo.org/hazmat

1850

OFFICIAL NOTICE OF INSPECTION

Facility ID: FA0279145
Inspection Date: 03/22/2017
Facility Name: CUPERTINO BIKE SHOP
Site Address: 10625 S FOOTHILL BL, CUPERTINO, CA 95014

HW Generator Type: <100 KG/MO.
Consent to Inspect Granted By: PAUL CLEVENGER, MANAGER

☐ **RCRA LQG**
☐ **Pictures Taken**
☐ **Samples Taken**

Summary of Violations & Notice to Comply

Program: PR0421230 - HAZARDOUS WASTE GENERATOR - 2202
Inspection Type: ROUTINE INSPECTION

VC	Class	Violation	Corrective Actions Taken
		No violations were observed during this inspection.	

Comments: On site to conduct a routine hazardous waste inspection.
Facility has 1 aqueous parts washer that is serviced by Safety Klean. Solvent remains in unit until service is requested.

No waste containers were observed on site.

Fire extinguishers have had annual maintenance
Rags are managed by Cintas
Container areas are inspected weekly
Employees are thoroughly familiar with hazardous waste management
Disposal records were reviewed and are in good order
EPA ID#CAL000401644 is active

The following violations were corrected on site:
Emergency information was not posted. Emergency Procedures template was provided and posted during inspection

Immediately correct any violation designated as a Class I or Class II violation. Correct all other violations no later than 04/21/2017, unless otherwise noted by the inspector.

Using the space provided, write a brief description of the actions taken by the facility to correct each violation. Attach additional pages if more space is needed. Within 5 days of achieving compliance or within 35 days of the inspection date, whichever comes first, sign the certification statement below and return a copy of this report to HMCD. Time granted for correction of violations does not preclude any enforcement action by HMCD or other agencies. This facility may be subject to reinspection at any time. [Authority: HSC 25185(c), 25187.8, 25404.1.2(c)]

Received By: vance sprock
owner

Inspected By: EE0010435 - LOREN LIM

Certification of Compliance

I certify under penalty of perjury that this facility has complied with directives specified in this Notice to Comply.

Signature of Owner/Operator
Date

Printed Name of Owner/Operator
Title

REVIEWED
By Mickey at 8:38 am, Apr 10, 2017

OFFICIAL NOTICE OF INSPECTION - SUPPLEMENTAL INFORMATION

This Official Notice of Inspection (NOI) documents the results of an inspection by HMCD, including a list of alleged violations, evidence in support of the alleged violations, corrective actions that must be taken by the facility, and general observations.

What am I supposed to do upon receiving a NOI?

- Correct the violations within 30 days of the inspection date, unless otherwise noted.
- In the "Corrective Actions Taken" column, write a brief description of the actions taken by the facility to correct each violation. Attach additional pages if more space is needed.
- Certify that the facility has returned to compliance by signing and dating the certification statement at the end of the report.
- Make a photocopy of the NOI and any attachments for your records.
- Within 5 days of achieving compliance or 35 days of the inspection date, whichever comes first, return the original copy of the report and any attachments to HMCD at 1555 Berger Drive, Suite 300, San Jose, CA 95112-2716.

What if there are violations that cannot be corrected within 30 days?

For each violation that cannot be corrected within 30 days, submit a written Compliance Plan describing the corrective actions you propose to take and the date by which the actions will be completed. State law grants up to 30 days to correct minor violations without penalty. Minor violations that are uncorrected after 30 days, and class I and II violations may be subject to enforcement action. To lessen the possibility of enforcement action, correct all violations as soon as possible.

What if I disagree with a violation on the NOI?

If you disagree with any violation listed in this NOI, you must submit a written Notice of Disagreement to HMCD within 30 days of the inspection date. Address such notices to the attention of the inspector who cited the violation. In your Notice of Disagreement, explain in detail why you believe the alleged violation was incorrectly cited.

What about photographs or samples taken during the inspection?

A co-located sample will be given to you upon request if adequate sample volume is available. Photographs and sample analytical results will not generally be available until after the inspection has been concluded. A copy of photographs and/or analytical results will be provided to you upon written request. Photographs and sample analytical results may be withheld in the event of a criminal investigation or other ongoing investigation.

Key to Acronyms and Regulatory Terms

XX CCR	California Code of Regulations, Title XX
XX CFR	Code of Federal Regulations, Title XX
Class	Violation classification: I = Class I violation, II = Class II violation, M = Minor violation, C = Corrected minor violation [HSC §25110.8.5, HSC §25117.6, CCR §66260.10]
DTSC	California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
HMCD	County of Santa Clara, Department of Environmental Health, Hazardous Materials Compliance Division
HSC	California Health and Safety Code
RCRA	Resource Conservation and Recovery Act
SCCO	Santa Clara County Ordinance Code
TSDF	Hazardous waste treatment, storage or disposal facility
UPCF	Unified Program Consolidated Form
UST	Underground storage tank
VC	HMCD violation code

Warning:

- It is a violation of State law to make a false statement that a facility has returned to compliance [HSC §25404.1.2(c)(2)].
- Making a false statement regarding a hazardous waste violation is punishable by a fine of not less than $2,000 or more than $25,000 and/or imprisonment in the county jail for up to one year [HSC §25191(b)].
- Making a false statement regarding an underground storage tank violation is punishable by a fine of not less than $500 or more than $5,000 [HSC § §25299(a)(8), 25299(b)(7)].
- HMCD has the right to require the submittal of reasonable and necessary documentation in support of any claim of compliance made by your facility [HSC §25187.8(i)].