December 2021 | Initial Study

4416 AZUSA CANYON ROAD

City of Irwindale

APPENDICES VOLUME I: A – D

Prepared for:

City of Irwindale
Contact: Brandi Jones, Senior Planner
5050 Irwindale Avenue
Irwindale, California 91706
626.430.2260

Prepared by:

PlaceWorks
Contact: JoAnn C. Hadfield, Principal
3 MacArthur Place, Suite 1100
Santa Ana, California 92707
714.966.9220
info@placeworks.com
www.placeworks.com

PLACEWORKS

Appendices

APPENDICES: Volume I

Appendices

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Appendix A Air Quality and GHG Background and Modeling

Appendix

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Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

SOUTH COAST AIR BASIN

The project site lies in the South Coast Air Basin (SoCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds.[1]

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The lowest average temperature for the City of Irwindale is 45°F in January, and the highest average temperature is 87°F in August.[2] Overall mean average temperature for the City is 76°F.[3]

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall historically averages 22.36 inches per year in the City.[4]

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the

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1 South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

2 USA.com. 2021. Irwindale, CA Weather. Accessed August 13. http://www.usa.com/irwindale-ca-weather.htm.

3 USA.com. 2021. Irwindale, CA Weather. Accessed August 13. http://www.usa.com/irwindale-ca-weather.htm.

4 USA.com. 2021. Irwindale, CA Weather. Accessed August 13. http://www.usa.com/irwindale-ca-weather.htm.

SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB. [5]

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions. [6]

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area. [7]

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (South Coast AQMD). However, South Coast AQMD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national

[5] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning..

[6] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[7] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US 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 (CCAA), 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.

These National AAQS 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. As shown in Table 1, these pollutants include 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[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	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.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
	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/m³	*	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/m³	150 µg/m³	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	Annual Arithmetic Mean	12 µg/m³	12 µg/m³	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/m³	
Lead (Pb)	30-Day Average	1.5 µg/m³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m³	
	Rolling 3-Month Average	*	0.15 µg/m³	
Sulfates (SO_4)[5]	24 hours	25 µg/m³	*	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.
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.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources

Source: California Air Resources Board (CARB). 2016, October 1. Ambient Air Quality Standards. https://ww2.arb.ca.gov/sites/default/files/2020-07/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.
1 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.
2 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.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 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.
5 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

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources and include CO, VOC, NO_2, SO_X, PM_{10}, $PM_{2.5}$, and Pb. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria 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 to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

[8,9] The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS.[10]

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of ozone (O_3), South Coast AQMD has established a significance threshold for this pollutant.[11]

Nitrogen Oxides (NO_x) are a byproduct of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). The principal form of NO_2 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 acts as an acute irritant and, in equal concentrations, is 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 part 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.[12,13] The SoCAB is designated as an attainment (maintenance) area under the National AAQS and attainment area under the California AAQS.[14]

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.[15,16] When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together

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8 South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

9 US Environmental Protection Agency (USEPA). 2021. Criteria Air Pollutants. Accessed July 29. https://www.epa.gov/criteria-air-pollutants.

10 California Air Resources Board (CARB). 2021, Area Designations Maps/State and National. Accessed July 29, 2021. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

11 South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

12 South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

13 US Environmental Protection Agency (USEPA). 2021. Criteria Air Pollutants. Accessed July 29. https://www.epa.gov/criteria-air-pollutants.

14 California Air Resources Board (CARB). 2021, Area Designations Maps/State and National. Accessed July 29, 2021. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

15 South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

16 US Environmental Protection Agency (USEPA). 2021. Criteria Air Pollutants. Accessed July 29. https://www.epa.gov/criteria-air-pollutants.

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. The SoCAB is designated as attainment under the California and National AAQS.[17]

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 (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). 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.[18]

The US Environmental Protection Agency's (EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. 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 individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.[19] There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs.[20] However, the EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen.[21] Particulate matter can also cause environmental effects such as visibility impairment,[22] environmental damage,[23]

[17] California Air Resources Board (CARB). 2021, Area Designations Maps/State and National. Accessed July 29, 2021. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

[18] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[19] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[20] South Coast Air Quality Management District (South Coast AQMD). 2013, February. 2012 Final Air Quality Management Plan. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.

[21] California Air Resources Board (CARB). 1998, April 22. The Report on Diesel Exhaust. http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm.

[22] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

[23] Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

and aesthetic damage.[24,25,26] The SoCAB is in nonattainment and serious nonattainment for $PM_{2.5}$ under the California and National AAQS, respectively. For PM_{10}, the SoCAB is nonattainment under the California AAQS and in attainment (serious maintenance) under the National AAQS.[27]

Ozone (O_3) is commonly referred to as "smog" and is a gas that is formed when VOCs 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 for 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. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season.[28,29] The SoCAB is designated as extreme nonattainment under the National AAQS (8-hour) and as nonattainment under the California AAQS (1-hour and 8-hour).[30]

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ.[31,32] The major sources of lead emissions have historically been mobile and

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[24] Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

[25] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[26] US Environmental Protection Agency (USEPA). 2019, June 11 (updated). Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

[27] CARB approved the South Coast AQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

[28] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[29] US Environmental Protection Agency (USEPA). 2021. Criteria Air Pollutants. Accessed July 29. https://www.epa.gov/criteria-air-pollutants.

[30] California Air Resources Board (CARB). 2021, Area Designations Maps/State and National. Accessed July 29, 2021. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

[31] South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[32] US Environmental Protection Agency (USEPA). 2021. Criteria Air Pollutants. Accessed July 29. https://www.epa.gov/criteria-air-pollutants.

industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted stricter lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[33] As a result of these violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead.[34] Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the project.

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as 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 to 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 (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §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 determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (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 forth 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, all of which are 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, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority

[33] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

[34] South Coast Air Quality Management District (South Coast AQMD). 2012, May 4. Final 2012 Lead State Implementation Plan: Los Angeles County. http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf.

facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the December 1999 update to the TAC list, CARB had designated 244 compounds as TACs.[35] Subsequently, the list was updated in 2007 to include Environmental Tobacco Smoke.[36] 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.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 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 lung.

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

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* [37] 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. 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

[35] California Air Resources Board (CARB). 1999. California Air Resources Board (CARB). Final Staff Report: Update to the Toxic Air Contaminant List. https://ww3.arb.ca.gov/toxics/id/finalstaffreport.htm.
[36] California Air Resources Board (CARB). 2021, July 29 (accessed). CARB Identified Toxic Air Contaminants. https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants.
[37] California Air Resources Board (CARB). 2005, April. Air Quality and Land Use Handbook: A Community Health Perspective. https://www.arb.ca.gov/ch/handbook.pdf.

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.

Multiple Airborne Toxics Exposure Study (MATES)

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and estimated the potential health risks from air toxics in the SoCAB. In 2008, the South Coast AQMD conducted its third update to the MATES study (MATES III). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for 84 percent of the cancer risk.[38]

The South Coast AQMD recently released the fourth update (MATES IV). The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources while 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, accounting for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basin-wide population-weighted risk decreased by approximately 57 percent compared to the analysis done for the MATES III time period.[39]

The Office of Environmental Health Hazard Assessment (OEHHA) updated the guidelines for estimating cancer risks on March 6, 2015. The new method utilizes higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates and length of residential exposures. When combined together, the South Coast AQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher using the proposed updated methods identified in MATES IV (e.g., 2.7 times higher than 418 in one million overall excess cancer risk).[40]

Air Quality Management Planning

The South Coast AQMD is the agency responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

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[38] South Coast Air Quality Management District (South Coast AQMD). 2008, September. Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III). https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-iii.
[39] South Coast Air Quality Management District (South Coast AQMD). 2015, October 3. Final Report Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV). http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf.
[40] South Coast Air Quality Management District (South Coast AQMD). 2015, October 3. Final Report Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV). http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf.

2016 AQMP

On March 3, 2017, the South Coast AQMD adopted the 2016 AQMP as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031,
- 2012 National annual $PM_{2.5}$ standard by 2025[41],
- 2006 National 24-hour $PM_{2.5}$ standard by 2019,
- 1997 National 8-hour ozone standard by 2023, and the
- 1979 National 1-hour ozone standard by year 2022.

It is projected that total NO_X emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022[42], which requires reducing NO_X emissions in the SoCAB to 250 tpd. This is approximately 45 percent additional reductions above existing regulations for the 2023 ozone standard and 55 percent additional reductions above existing regulations to meet the 2031 ozone standard.

Reducing NO_X emissions would also reduce $PM_{2.5}$ concentrations in the SoCAB. However, as the goal is to meet the 2012 federal annual $PM_{2.5}$ standard no later than year 2025, the South Coast AQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under this federal standard. A "moderate" non-attainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in the 2016 AQMP would be implemented in collaboration between CARB and the EPA. [43]

LEAD STATE IMPLEMENTATION PLAN

In 2008, EPA designated the Los Angeles County portion of the SoCAB nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard. The rest of the SoCAB, outside the Los Angeles County nonattainment area remains in attainment of the new standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

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[41] The 2016 AQMP requests a reclassification from moderate to serious non-attainment for the 2012 National $PM_{2.5}$ standard.

[42] South Coast Air Quality Management District (South Coast AQMD). 2017, March 4. Final 2016 Air Quality Management Plan. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15.

[43] South Coast Air Quality Management District (South Coast AQMD). 2017, March 4. Final 2016 Air Quality Management Plan. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15.

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified:** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment:** a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment:** a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- **Nonattainment/Transitional:** a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 2. The SoCAB is designated in attainment of the California AAQS for sulfates. The SoCAB is designated as nonattainment for lead (Los Angeles County only) under the National AAQS.

Table 2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	No Federal Standard
Ozone – 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment (Serious Maintenance)
$PM_{2.5}$	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment (Maintenance)
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2021a.
[1] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

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 taken by the South Coast AQMD. The project site is located within Source Receptor Area (SRA) 9 – East San Gabriel Valley. The air quality monitoring station closest to the project site is the Azusa Monitoring Station. The most current five years of data are included in Table 3, *Ambient Air Quality Monitoring Summary*. The data show regular violations of the state and federal O_3, state PM_{10}, and federal $PM_{2.5}$ standards in the last five years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2015	2016	2017	2018	2019
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	21	30	38	24	34
State 8-hour ≥ 0.07 ppm (days exceed threshold)	28	40	64	43	43
Federal 8-Hour > 0.075 ppm (days exceed threshold)	17	25	43	23	21
Max. 1-Hour Conc. (ppm)	0.122	0.146	0.152	0.139	0.123
Max. 8-Hour Conc. (ppm)	0.096	0.106	0.114	0.100	0.094
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0710	0.0742	0.0656	0.0708	0.0597
Coarse Particulates (PM_{10})[1]					
State 24-Hour > 50 μg/m^3 (days exceed threshold)	12	12	7	10	4
Federal 24-Hour > 150 μg/m^3 (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (μg/m^3)	101.0	74.0	83.9	78.3	82.0
Fine Particulates ($PM_{2.5}$)[1]					
Federal 24-Hour > 35 μg/m^3 (days exceed threshold)	2	0	0	1	1
Max. 24-Hour Conc. (μg/m^3)	70.3	32.1	24.9	41.8	70.3

Source: California Air Resources Board (CARB). 2021. Air Pollution Data Monitoring Cards (2015, 2016, 2017, 2018, and 2019). https://www.arb.ca.gov/adam/topfour/topfour1.php
Notes: ppm = parts per million; ppb = parts per billion; μg/m^3 = micrograms per cubic meter
[1] Data from the Azusa Monitoring Station in Azusa.

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 cardio-respiratory diseases.

Residential areas are also considered to be 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. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. 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 and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as 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 public. The nearest sensitive receptors to the proposed project site include a single family residence to the north near the railroad tracks and East Cypress Street. Other nearby sensitive receptors are the residences to the southwest, south, east, and northeast of the project site.

Methodology

Projected construction-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0.[44] CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only) use.

Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in South Coast AQMD's *CEQA Air Quality Handbook* and the significance thresholds on the South Coast AQMD's website.[45] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The South Coast AQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

REGIONAL SIGNIFICANCE THRESHOLDS

The South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 4 lists South Coast AQMD's regional significance thresholds that are applicable for all projects uniformly regardless of size or scope. There is growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, South Coast AQMD has not developed thresholds for them.

[44] California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model (CalEEMod). Version 2020.4.0. Prepared by: BREEZE Software, A Division of Trinity Consultants in collaboration with South Coast Air Quality Management District and the California Air Districts.

[45] South Coast Air Quality Management District (South Coast AQMD). 2019, April (revised). South Coast AQMD Air Quality Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

Table 4 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: South Coast AQMD. 2019. South Coast AQMD Air Quality Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) [46]

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB.[47]

Mass emissions in Table 4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact. The South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB.

[46] South Coast Air Quality Management District (South Coast AQMD). 2011a, December. The Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf.

[47] South Coast Air Quality Management District (South Coast AQMD). 2015, October. "Blueprint for Clean Air: 2016 AQMP White Paper." 2016 AQMP White Papers Web Page. https://www.aqmd.gov/docs/default-source/Agendas/aqmp/white-paper-working-groups/wp-blueprint-final.pdf?sfvrsn=2.

To achieve the health-based standards established by the EPA, the South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hot spot analysis conducted for the attainment by the South Coast AQMD for busiest intersections in Los Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards.[48] As identified in the South Coast AQMD's 2003 AQMP[49] and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.[50]

LOCALIZED SIGNIFICANCE THRESHOLDS

The South Coast AQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS and are shown in Table 5.

48 The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

49 South Coast Air Quality Management District (South Coast AQMD). 2003, August. 2003 Air Quality Management Plan. Appendix V. https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp.

50 Bay Area Air Quality Management District (BAAQMD). 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.

Table 5 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (South Coast AQMD)[1]	10.4 μg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (South Coast AQMD)[1]	10.4 μg/m^3
24-Hour PM_{10} Standard – Operation (South Coast AQMD)[1]	2.5 μg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (South Coast AQMD)[1]	2.5 μg/m^3

Source: South Coast Air Quality Management District (South Coast AQMD). 2019, April (revised). South Coast AQMD Air Quality Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf..
ppm – parts per million; μg/m^3 – micrograms per cubic meter
1 Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5 for projects under 5-acres. These "screening-level" LSTs tables are the localized significance thresholds for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.

In accordance with South Coast AQMD's LST methodology, the screening-level construction LSTs are based on the acreage disturbed per day based on equipment use while the screening-level operation LSTs are based on a 5-acre site. The screening-level LSTs for the project site in SRA 9 are shown in Table 6, *South Coast AQMD Screening-Level Localized Significance Thresholds,* for sensitive receptors within 82 feet (25 meters) for NO_x and CO and 550 feet (168 meters) for PM_{10} and $PM_{2.5}$. These distances represent residences at 550 feet, which are assumed to be exposed to project-related emissions 24 hours a day, and the offsite worker at 82 feet, who would not be exposed to project-related emissions for most of the day.

Table 6 South Coast AQMD Screening-Level Localized Significance Thresholds

	Threshold (lbs/day)			
Acreage Disturbed	Nitrogen Oxides (NO_X)[1]	Carbon Monoxide (CO)[1]	Coarse Particulates (PM_{10})[2]	Fine Particulates ($PM_{2.5}$)[2]
Construction				
1 Acre or Less Disturbed Per Day	89	623	62	18
5 Acres Disturbed Per Day	203	1,733	91	29
Operation				
5-Acre Site	203	1,733	23	8

Sources:
South Coast Air Quality Management District (South Coast AQMD). 2008, July. Final Localized Significance Threshold Methodology. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf;
South Coast Air Quality Management District (South Coast AQMD). 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf.
1 LSTs are based on receptors within 82 feet (25 meters) in SRA 9.
2 LSTs are based on receptors within 550 feet (168 meters) in SRA 9.

Health Risk

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 7, *Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. 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 CEQA-level environmental document to analyze the environmental effects of attracting development and people to an area. However, the environmental document must analyze the impacts of environmental hazards on future users, when a proposed project exacerbates an existing environmental hazard or condition. 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.

Table 7 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases

Source: South Coast AQMD 2019. South Coast AQMD Air Quality Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

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. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[51] carbon (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),

[51] 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, but part of the feedback loop rather than a primary cause of change.

hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[52, 53] 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.

    - ***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 as alternatives, along with HFCs, 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.

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[52] 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 (California Air Resources Board (CARB). 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

[53] Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/03/WGI_TAR_full_report.pdf.

- ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, 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.

- ***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.[54,55]

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 8. The GWP is used to convert GHGs to CO_2-equivalence (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, a project that generates 10 metric tons (MT) of CH_4 would be equivalent to 250 MT of CO_2.[56]

54 Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/03/WGI_TAR_full_report.pdf.
55 US Environmental Protection Agency (USEPA). 2019. Overview of Greenhouse Gases. http://www3.epa.gov/climatechange/ghgemissions/gases.html.
56 Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf

Table 8 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[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[2] (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 (IPCC). 1995. Second Assessment Report: Climate Change 1995 https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_sar_wg_I_full_report.pdf.
Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf.
Notes: The GWP values in the IPCC's Fifth Assessment Report (2013)[57] reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, South Coast AQMD uses the AR4 GWP values to maintain consistency in statewide GHG emissions modeling. In addition, the 2017 Scoping Plan Update was based on the AR4 GWP values.
1 Based on 100-year time horizon of the GWP of the air pollutant relative to CO_2.
2 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.

California's Greenhouse Gas Sources and Relative Contribution

In 2020, the statewide GHG emissions inventory was updated for 2000 to 2018 emissions using the GWPs in IPCC's AR4.[58] Based on these GWPs, California produced 425.3 $MMTCO_2e$ GHG emissions in 2018. California's transportation sector was the single largest generator of GHG emissions, producing 39.9 percent of the state's total emissions. Industrial sector emissions made up 21.0 percent, and electric power generation made up 14.8 percent of the state's emissions inventory. Other major sectors of GHG emissions include

[57] Intergovernmental Panel on Climate Change (IPCC). 2013. Fifth Assessment Report: Climate Change 2013. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf.
[58] 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).

commercial and residential (9.7 percent), agriculture and forestry (7.7 percent) high GWP (4.8 percent), and recycling and waste (2.1 percent).[59]

Since the peak level in 2004, California statewide GHG emissions dropped below the 2020 GHG limit of 431 $MMCO_2e$ in 2016 and have remained below the 2020 GHG limit since then. In 2018, emissions from routine GHG emitting activities statewide were 6 $MMTCO_2e$ lower than the 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.0 $MTCO_2e$ per person to 10.7 $MTCO_2e$ per person in 2018, a 24 percent decrease. Transportation emissions decreased in 2018 compared to the previous year, which is the first year over year decrease since 2013. Since 2008, California's electricity sector has followed an overall downward trend in emissions. In 2018, solar power generation has continued its rapid growth since 2013. Emissions from high-GWP gases increased 2.3 percent in 2018 (2000-2018 average year-over-year increase is 6.8 percent), continuing the increasing trend as they replace Ozone Depleting Substances (ODS) being phased out under the 1987 Montreal Protocol. 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 43 percent decline since the 2001 peak, while the state's GDP has grown 59 percent during this period.[60]

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The 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. [61]

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies 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 project's GHG emissions inventory because they constitute the majority of GHG emissions and, per South Coast AQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

[59] California Air Resources Board (CARB). 2020. 2020 California Greenhouse Gas 2000-2018 Emissions Trends and Indicators Report. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf.

[60] California Air Resources Board (CARB). 2020. 2020 California Greenhouse Gas 2000-2018 Emissions Trends and Indicators Report. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf.

[61] US Environmental Protection Agency (USEPA). 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.

US Mandatory Report Rule for GHGs (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 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2021 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon (mpg) and 163 grams per mile (g/mi) of CO_2 emissions for model year 2025. However, on March 30, 2020, the EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg and 202 g/mi of CO_2 emissions for model year 2026 vehicles.[62] However, 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 the CAFE standards established in 2012 for model years 2017 to 2025.[63] In addition, per Executive Order 13990 (EO 13990) issued by President Biden on January 20, 2021, the EPA is reconsidering SAFE for the purpose of rescinding the rule. The reconsideration process is ongoing with a planned public hearing occurring on June 2, 2021, which also started the public comment period that ended July 6, 2021. On August 5, 2021, the National Highway Traffic Safety Administration announced new proposed fuel standards in response to EO 13990. Fuel efficiency under the standards proposed would increase 8 percent annually for model years 2024 to 2026 and increase estimate fleetwide average by 12 mpg for model year 2026 relative to model year 2021.[64]

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule which became effective on August 19, 2019. The ACE rule was crafted under the direction of President Trump's Energy Independence Executive

[62] The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84 (April 30, 2020).

[63] California Air Resources Board. 2021, May 6 (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.

[64] National Highway Traffic Safety Administration. 2021, August 5. USDOT Proposes Improved Fuel Economy Standards for MY 2024-2026 Passenger Cars and Light Trucks. https://www.nhtsa.gov/press-releases/fuel-economy-standards-2024-2026-proposal

Order. It officially rescinds the Clean Power Plan rule issued during the Obama Administration and sets emissions guidelines for states in developing plans to limit CO_2 emissions from coal-fired power plants.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32) and Senate Bill 375 (SB 375).

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

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

Assembly Bill 32, the Global Warming Solutions Act (2006)

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.

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 approximately 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state.[65] 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.

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 was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and

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

the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 $MMTCO_2e$.[66]

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 within 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 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.[67] 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.[68]

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in 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.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 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 24, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197

[66] California Air Resources Board (CARB). 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm.

[67] California Air Resources Board (CARB). 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm.

[68] California Air Resources Board (CARB). 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm.

requirements, 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.[69]

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 other lands. Requirements for GHG reductions at stationary sources complement local air pollution control 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, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- 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

[69] California Air Resources Board (CARB). 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.

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 discretion to develop evidenced-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 VMT, and direct investments in GHG reductions within 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.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 9. It includes the existing renewables requirements, advanced clean cars, the "10 percent" Low Carbon Fuel Standard (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. Also shown in the table, the known commitments are expected to result in emissions that are 60 $MMTCO_2e$ 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 9 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions $MMTCO_2e$
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	**260**
Gap to 2030 Target	**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 10 provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

Table 10 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% 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%

Table 10 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 MMTCO2e	2030 Proposed Plan Ranges MMTCO2e	% Change from 1990
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink[1]	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	**431**	**260**	**-40%**

Source: California Air Resources Board (CARB). 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.
1 Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

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.[70] In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. The South Coast AQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these char broilers by over 80 percent.[71] Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the SoCAB.

Senate Bill 375

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

70 California Air Resources Board (CARB). 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm.
71 California Air Resources Board (CARB). 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm.

18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035.[72] The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met.[73]

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and recently released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and 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 SCSs. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 $MMTCO_2e$ in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent).[74] CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018 are subject to these new targets.

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[72] California Air Resources Board (CARB). 2010, September. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375. https://ww3.arb.ca.gov/cc/sb375/staffreport_sb375080910.pdf.
[73] California Air Resources Board (CARB). 2010, September. Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375. https://ww3.arb.ca.gov/board/res/2010/res10-31.pdf.
[74] California Air Resources Board (CARB). 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. https://www.arb.ca.gov/cc/inventory/data/data.htm.

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. For the SCAG region, the 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) (Connect SoCal) was adopted on September 3, 2020, and is an update to the 2016-2040 RTP/SCS.[75] In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land uses strategies in development of the SCAG region through horizon year 2045.[76] Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. Additionally, Connect SoCal also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together, and increasing investments in transit and complete streets.[77]

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 was 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 emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy 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. However, as discussed above, under SAFE Rule, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg and 202 g/mi of CO_2 emissions for model year 2026 vehicles.[78] Additionally, the EPA also published the final rule for the One National Program Rule, which clarifies that

[75] Southern California Association of Governments (SCAG). 2020, September 3. Connect SoCal Plan: The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy of The Southern California Association of Governments. https://www.connectsocal.org/Pages/Connect-SoCal-Final-Plan.aspx

[76] Southern California Association of Governments (SCAG). 2020, September 3. Connect SoCal Plan: The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy of The Southern California Association of Governments. https://www.connectsocal.org/Pages/Connect-SoCal-Final-Plan.aspx

[77] Southern California Association of Governments (SCAG). 2020, September 3. Connect SoCal Plan: The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy of The Southern California Association of Governments. https://www.connectsocal.org/Pages/Connect-SoCal-Final-Plan.aspx

[78] The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84 (April 30, 2020).

federal law preempts state and local tailpipe GHG emissions standards as well as ZE vehicle mandates. Additionally, this rule revokes the waiver granted to California in 2013 for the ACC program as it relates to GHG and ZE vehicle standards.[79] In November 2019, California, joined by 22 other states, the District of Columbia, and the Cities of Los Angeles and New York filed a lawsuit with the U.S. Court of Appeals for the District of Columbia Circuit challenging the One National Program Rule. To date, a ruling has not been made on the lawsuit. Additionally, as stated, the USEPA is reconsidering SAFE for the purpose of rescinding the rule under the direction of Executive Order 13990 issued by President Biden.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 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 standard 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.

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the 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 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law in 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.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December

[79] The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. Vol. 84 Federal Register, No. 188 (September 27, 2019).

31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

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.

Executive Order N-79-20

On September 23, 2020 Governor Newsom signed Executive Order N-79-20 which identifies a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. Additionally, this Executive Order identified fleet goals for trucks of 100 percent of drayage trucks be zero emissions by 2035 and 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045, for all operations where feasible. Additionally, the Executive Order identifies a goal for the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

California Building 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 2019 (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. The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, went into effect on January 1, 2020.

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.[80] 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.[81] 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.[82]

On August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which will be considered for approval by the California Building Standards Commission in December 2021. If approved, the 2022 standards would become effective and replace the existing 2019 standards on January 1, 2023. The 2022 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high rise multi-family buildings (i.e., more than three stories) and non-commercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.[83]

California Building 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 (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. 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.[84] The mandatory provisions of CALGreen became effective January 1, 2011. The CEC adopted the voluntary standards of the 2019 CALGreen on October 3, 2018. The 2019 CALGreen standards become effective January 1, 2020.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC 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.

[80] California Energy Commission (CEC). 2018. News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first.

[81] California Energy Commission (CEC). 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf.

[82] California Energy Commission (CEC). 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf.

[83] California Energy Commission. 2021, May 19. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

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

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. Section 5.408 of the 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.

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 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 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.

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.

Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[85]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, South Coast AQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency[86]:

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. South Coast AQMD is proposing a screening-

[85] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

[86] South Coast Air Quality Management District (South Coast AQMD). 2010, September 28. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 15. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf.

level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. These bright-line thresholds are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions. [87]

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

  The South Coast AQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan level projects (e.g., program-level projects such as general plans) for the year 2020.[88] The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.[89]

For purposes of this analysis, because the proposed project has an anticipated opening year post-2020, the bright-line screening-level criterion of 3,000 $MTCO_2e$/yr is used as the significance threshold for this project. Therefore, if the project operation-phase emissions exceed the 3,000 $MTCO_2e$/yr threshold, GHG emissions would be considered potentially significant in the absence of mitigation measures.

[87] South Coast Air Quality Management District (South Coast AQMD). 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf.

[88] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

[89] South Coast AQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

Regional Construction Emissions Worksheet - Unmitigated

*CalEEMod, Version 2020.4.0

Building Demolition

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Fugitive Dust					0.0953	0.0144
	Off-Road	0.3456	3.2204	3.7849	0.0125	0.1119	0.103
	Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**0.2072**	**0.1174**
Offsite							
	Hauling	2.56E-03	0.078	0.0249	2.60E-04	6.77E-03	2.20E-03
	Vendor	3.94E-03	0.098	0.0336	3.90E-04	0.0129	4.38E-03
	Worker	0.0173	0.0126	0.1968	5.10E-04	0.0519	0.0141
	Total	**0.0238**	**0.1886**	**0.2552**	**1.16E-03**	**0.0716**	**0.0207**
TOTAL		***0.37***	***3.41***	***4.04***	***0.01***	***0.28***	***0.14***
Onsite	**2022 Winter**						
	Fugitive Dust					0.0953	0.0144
	Off-Road	0.3456	3.2204	3.7849	0.0125	0.1119	0.103
	Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**0.2072**	**0.1174**
Offsite							
	Hauling	2.44E-03	0.0813	0.0256	2.60E-04	6.77E-03	2.21E-03
	Vendor	3.89E-03	0.102	0.0348	3.90E-04	0.0129	4.38E-03
	Worker	0.0185	0.014	0.1807	4.80E-04	0.0519	0.0141
	Total	**0.0249**	**0.1973**	**0.2411**	**1.13E-03**	**0.0716**	**0.0207**
TOTAL		***0.37***	***3.42***	***4.03***	***0.01***	***0.28***	***0.13***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.10	0.01
	Off-Road	0.35	3.22	3.78	0.01	0.11	0.10
	Total	**0.35**	**3.22**	**3.78**	**0.01**	**0.21**	**0.12**
Offsite							
	Hauling	0.00	0.08	0.03	0.00	0.01	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.02	0.01	0.20	0.00	0.05	0.01
	Total	**0.02**	**0.20**	**0.26**	**0.00**	**0.07**	**0.02**
TOTAL		***0.37***	***3.42***	***4.04***	***0.01***	***0.28***	***0.14***

Asphalt Demolition

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Fugitive Dust					1.2922	0.1957
	Off-Road	0.3456	3.2204	3.7849	0.0125	0.1119	0.103
	Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**1.4041**	**0.2986**
Offsite							
	Hauling	0.0868	3.2426	0.7027	0.0122	0.3502	0.1136
	Vendor	3.94E-03	0.098	0.0336	3.90E-04	0.0129	4.38E-03
	Worker	0.0173	0.0126	0.1968	5.10E-04	0.0519	0.0141
	Total	**0.108**	**3.3532**	**0.9331**	**0.0131**	**0.4149**	**0.1321**
TOTAL		***0.45***	***6.57***	***4.72***	***0.03***	***1.82***	***0.43***
Onsite	**2022 Winter**						
	Fugitive Dust					1.2922	0.1957
	Off-Road	0.3456	3.2204	3.7849	0.0125	0.1119	0.103
	Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**1.4041**	**0.2986**
Offsite							
	Hauling	0.0852	3.3727	0.7123	0.0123	0.3502	0.1136

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Vendor	3.89E-03	0.102	0.0348	3.90E-04	0.0129	4.38E-03
	Worker	0.0185	0.014	0.1807	4.80E-04	0.0519	0.0141
	Total	**0.1076**	**3.4887**	**0.9277**	**0.0131**	**0.415**	**0.1321**
TOTAL		***0.45***	***6.71***	***4.71***	***0.03***	***1.82***	***0.31***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	1.29	0.20
	Off-Road	0.35	3.22	3.78	0.01	0.11	0.10
	Total	**0.35**	**3.22**	**3.78**	**0.01**	**1.40**	**0.30**
Offsite							
	Hauling	0.09	3.37	0.71	0.01	0.35	0.11
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.02	0.01	0.20	0.00	0.05	0.01
	Total	**0.11**	**3.49**	**0.93**	**0.01**	**0.42**	**0.13**
TOTAL		***0.45***	***6.71***	***4.72***	***0.03***	***1.82***	***0.43***

Site Preparation

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Fugitive Dust					0.2267	0.0245
	Off-Road	0.3826	3.7621	3.2089	4.79E-03	0.2101	0.1933
	Total	**0.3826**	**3.7621**	**3.2089**	**4.79E-03**	**0.4367**	**0.2177**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	3.94E-03	0.098	0.0336	3.90E-04	0.0129	4.38E-03
	Worker	0.0104	7.58E-03	0.1181	3.10E-04	0.0311	8.45E-03
	Total	**0.0143**	**0.1056**	**0.1517**	**7.00E-04**	**0.044**	**0.0128**
TOTAL		***0.40***	***3.87***	***3.36***	***0.01***	***0.48***	***0.23***
Onsite	**2022 Winter**						
	Fugitive Dust					0.2267	0.0245
	Off-Road	0.3826	3.7621	3.2089	4.79E-03	0.2101	0.1933
	Total	**0.3826**	**3.7621**	**3.2089**	**4.79E-03**	**0.4367**	**0.2177**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	3.89E-03	0.102	0.0348	3.90E-04	0.0129	4.38E-03
	Worker	0.0111	8.37E-03	0.1084	2.90E-04	0.0311	8.45E-03
	Total	**0.015**	**0.1104**	**0.1432**	**6.80E-04**	**0.0441**	**0.0128**
TOTAL		***0.40***	***3.87***	***3.35***	***0.01***	***0.48***	***0.23***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.23	0.02
	Off-Road	0.38	3.76	3.21	0.00	0.21	0.19
	Total	**0.38**	**3.76**	**3.21**	**0.00**	**0.44**	**0.22**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.01	0.01	0.12	0.00	0.03	0.01
	Total	**0.02**	**0.11**	**0.15**	**0.00**	**0.04**	**0.01**
TOTAL		***0.40***	***3.87***	***3.36***	***0.01***	***0.48***	***0.23***

Building Construction

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Off-Road	0.6259	6.5142	9.7087	0.0149	0.279	0.2567
	Total	**0.6259**	**6.5142**	**9.7087**	**0.0149**	**0.279**	**0.2567**
Offsite							

	Hauling	0	0	0	0	0	0
	Vendor	0.0767	1.9104	0.655	7.64E-03	0.252	0.0854
	Worker	0.346	0.2526	3.9358	0.0102	1.0375	0.2816
	Total	**0.4227**	**2.163**	**4.5908**	**0.0179**	**1.2895**	**0.367**
TOTAL		***1.05***	***8.68***	***14.30***	***0.03***	***1.57***	***0.62***
Onsite	**2022 Winter**						
	Off-Road	0.6259	6.5142	9.7087	0.0149	0.279	0.2567
	Total	**0.6259**	**6.5142**	**9.7087**	**0.0149**	**0.279**	**0.2567**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.0758	1.9891	0.6776	7.64E-03	0.2521	0.0855
	Worker	0.3704	0.2791	3.6137	9.68E-03	1.0375	0.2816
	Total	**0.4462**	**2.2682**	**4.2913**	**0.0173**	**1.2895**	**0.367**
TOTAL		***1.07***	***8.78***	***14.00***	***0.03***	***1.57***	***0.62***
Onsite	**2022**						
	Off-Road	0.63	6.51	9.71	0.01	0.28	0.26
	Total	**0.63**	**6.51**	**9.71**	**0.01**	**0.28**	**0.26**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.08	1.99	0.68	0.01	0.25	0.09
	Worker	0.37	0.28	3.94	0.01	1.04	0.28
	Total	**0.45**	**2.27**	**4.59**	**0.02**	**1.29**	**0.37**
TOTAL		***1.07***	***8.78***	***14.30***	***0.03***	***1.57***	***0.62***

Rough Grading

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Fugitive Dust					1.1662	0.1274
	Off-Road	4.295	47.4838	32.7612	0.0786	1.8373	1.6903
	Total	**4.295**	**47.4838**	**32.7612**	**0.0786**	**3.0036**	**1.8177**
Offsite							
	Hauling	0.754	27.8603	6.1783	0.1046	2.9793	0.9668
	Vendor	3.94E-03	0.098	0.0336	3.90E-04	0.0129	4.38E-03
	Worker	0.0519	0.0379	0.5904	1.53E-03	0.1556	0.0422
	Total	**0.8099**	**27.9962**	**6.8023**	**0.1065**	**3.1478**	**1.0134**
TOTAL		***5.10***	***75.48***	***39.56***	***0.19***	***6.15***	***2.83***
Onsite	**2022 Winter**						
	Fugitive Dust					1.1662	0.1274
	Off-Road	4.295	47.4838	32.7612	0.0786	1.8373	1.6903
	Total	**4.295**	**47.4838**	**32.7612**	**0.0786**	**3.0036**	**1.8177**
Offsite							
	Hauling	0.7388	28.9822	6.2707	0.1046	2.9796	0.9671
	Vendor	3.89E-03	0.102	0.0348	3.90E-04	0.0129	4.38E-03
	Worker	0.0556	0.0419	0.5421	1.45E-03	0.1556	0.0422
	Total	**0.7983**	**29.1261**	**6.8475**	**0.1064**	**3.1482**	**1.0137**
TOTAL		***5.09***	***76.61***	***39.61***	***0.19***	***6.15***	***1.86***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	1.17	0.13
	Off-Road	4.30	47.48	32.76	0.08	1.84	1.69
	Total	**4.30**	**47.48**	**32.76**	**0.08**	**3.00**	**1.82**
Offsite							
	Hauling	0.75	28.98	6.27	0.10	2.98	0.97
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Worker	0.06	0.04	0.59	0.00	0.16	0.04
	Total	**0.81**	**29.13**	**6.85**	**0.11**	**3.15**	**1.01**
TOTAL		***5.10***	***76.61***	***39.61***	***0.19***	***6.15***	***2.83***

Utility Trenching

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**					
	Off-Road	0.2368	2.4086	3.2169	4.47E-03	0.1295	0.1192
	Total	**0.2368**	**2.4086**	**3.2169**	**4.47E-03**	**0.1295**	**0.1192**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0173	0.0126	0.1968	5.10E-04	0.0519	0.0141
	Total	**0.0173**	**0.0126**	**0.1968**	**5.10E-04**	**0.0519**	**0.0141**
TOTAL		***0.25***	***2.42***	***3.41***	***0.00***	***0.18***	***0.13***
Onsite		**2022 Winter**					
	Off-Road	0.2368	2.4086	3.2169	4.47E-03	0.1295	0.1192
	Total	**0.2368**	**2.4086**	**3.2169**	**4.47E-03**	**0.1295**	**0.1192**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0185	0.014	0.1807	4.80E-04	0.0519	0.0141
	Total	**0.0185**	**0.014**	**0.1807**	**4.80E-04**	**0.0519**	**0.0141**
TOTAL		***0.26***	***2.42***	***3.40***	***0.00***	***0.18***	***0.13***
Onsite		**2022**					
	Off-Road	0.24	2.41	3.22	0.00	0.13	0.12
	Total	**0.24**	**2.41**	**3.22**	**0.00**	**0.13**	**0.12**
Offsite							
	Hauling	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
	Worker	0.02	0.01	0.20	0.00	0.05	0.01
	Total	**0.02**	**0.01**	**0.20**	**0.00**	**0.05**	**0.01**
TOTAL		***0.26***	***2.42***	***3.41***	***0.00***	***0.18***	***0.13***

Fine Grading

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**					
	Fugitive Dust					0	0
	Off-Road	0.3123	2.3606	2.8848	3.84E-03	0.1337	0.123
	Total	**0.3123**	**2.3606**	**2.8848**	**3.84E-03**	**0.1337**	**0.123**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	3.94E-03	0.098	0.0336	3.90E-04	0.0129	4.38E-03
	Worker	0.0173	0.0126	0.1968	5.10E-04	0.0519	0.0141
	Total	**0.0212**	**0.1106**	**0.2304**	**9.00E-04**	**0.0648**	**0.0185**
TOTAL		***0.33***	***2.47***	***3.12***	***0.00***	***0.20***	***0.14***
Onsite		**2022 Winter**					
	Fugitive Dust					0	0
	Off-Road	0.3123	2.3606	2.8848	3.84E-03	0.1337	0.123
	Total	**0.3123**	**2.3606**	**2.8848**	**3.84E-03**	**0.1337**	**0.123**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	3.89E-03	0.102	0.0348	3.90E-04	0.0129	4.38E-03
	Worker	0.0185	0.014	0.1807	4.80E-04	0.0519	0.0141

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Total	0.0224	0.116	0.2154	8.70E-04	0.0648	0.0185
TOTAL		***0.33***	***2.48***	***3.10***	***0.00***	***0.20***	***0.14***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
	Off-Road	0.31	2.36	2.88	0.00	0.13	0.12
	Total	**0.31**	**2.36**	**2.88**	**0.00**	**0.13**	**0.12**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.02	0.01	0.20	0.00	0.05	0.01
	Total	**0.02**	**0.12**	**0.23**	**0.00**	**0.06**	**0.02**
TOTAL		***0.33***	***2.48***	***3.12***	***0.00***	***0.20***	***0.14***

Architectural Coating

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Archit. Coating	58.7508				0	0
	Off-Road	0.3316	3.3828	5.6686	8.89E-03	0.1184	0.1154
	Total	**59.0825**	**3.3828**	**5.6686**	**8.89E-03**	**0.1184**	**0.1154**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0692	0.0505	0.7872	2.04E-03	0.2075	0.0563
	Total	**0.0692**	**0.0505**	**0.7872**	**2.04E-03**	**0.2075**	**0.0563**
TOTAL		***59.15***	***3.43***	***6.46***	***0.01***	***0.33***	***0.17***
Onsite	**2022 Winter**						
	Archit. Coating	58.7508				0	0
	Off-Road	0.3316	3.3828	5.6686	8.89E-03	0.1184	0.1154
	Total	**59.0825**	**3.3828**	**5.6686**	**8.89E-03**	**0.1184**	**0.1154**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0741	0.0558	0.7227	1.94E-03	0.2075	0.0563
	Total	**0.0741**	**0.0558**	**0.7227**	**1.94E-03**	**0.2075**	**0.0563**
TOTAL		***59.16***	***3.44***	***6.39***	***0.01***	***0.33***	***0.17***
Onsite	**2022**						
	Archit. Coating	58.75	0.00	0.00	0.00	0.00	0.00
	Off-Road	0.33	3.38	5.67	0.01	0.12	0.12
	Total	**59.08**	**3.38**	**5.67**	**0.01**	**0.12**	**0.12**
Offsite							
	Hauling	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
	Worker	0.07	0.06	0.79	0.00	0.21	0.06
	Total	**0.07**	**0.06**	**0.79**	**0.00**	**0.21**	**0.06**
TOTAL		***59.16***	***3.44***	***6.46***	***0.01***	***0.33***	***0.17***

Finishing/Landscaping

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Off-Road	0.1341	1.3647	1.8227	2.53E-03	0.0734	0.0675
	Total	**0.1341**	**1.3647**	**1.8227**	**2.53E-03**	**0.0734**	**0.0675**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0

	Worker	0.0104	7.58E-03	0.1181	3.10E-04	0.0311	8.45E-03
	Total	**0.0104**	**7.58E-03**	**0.1181**	**3.10E-04**	**0.0311**	**8.45E-03**
TOTAL		***0.14***	***1.37***	***1.94***	***0.00***	***0.10***	***0.08***
Onsite	**2022 Winter**						
	Off-Road	0.1341	1.3647	1.8227	2.53E-03	0.0734	0.0675
	Total	**0.1341**	**1.3647**	**1.8227**	**2.53E-03**	**0.0734**	**0.0675**
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0111	8.37E-03	0.1084	2.90E-04	0.0311	8.45E-03
	Total	**0.0111**	**8.37E-03**	**0.1084**	**2.90E-04**	**0.0311**	**8.45E-03**
TOTAL		***0.15***	***1.37***	***1.93***	***0.00***	***0.10***	***0.08***
Onsite	**2022**						
	Off-Road	0.13	1.36	1.82	0.00	0.07	0.07
	Total	**0.13**	**1.36**	**1.82**	**0.00**	**0.07**	**0.07**
Offsite							
	Hauling	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
	Worker	0.01	0.01	0.12	0.00	0.03	0.01
	Total	**0.01**	**0.01**	**0.12**	**0.00**	**0.03**	**0.01**
TOTAL		***0.15***	***1.37***	***1.94***	***0.00***	***0.10***	***0.08***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Building Demolition	0.37	3.42	4.04	0.01	0.28	0.14
Building Demolition & Asphalt Demolition	0.82	10.13	8.76	0.04	2.10	0.57
Building Demolition	0.37	3.42	4.04	0.01	0.28	0.14
Site Preparation	0.40	3.87	3.36	0.01	0.48	0.23
Site Preparation & Building Construction	1.47	12.65	17.66	0.04	2.05	0.85
Site Preparation, Building Construction, & Rough Grading	6.57	89.26	57.27	0.22	8.20	3.69
Building Construction & Rough Grading	6.18	85.39	53.91	0.22	7.72	3.45
Building Construction, Rough Grading, & Utility Trenching	6.43	87.81	57.32	0.22	7.90	3.59
Building Construction & Utility Trenching	1.33	11.21	17.71	0.04	1.75	0.76
Building Construction	1.07	8.78	14.30	0.03	1.57	0.62
Building Construction & Fine Grading	1.41	11.26	17.41	0.04	1.77	0.77
Building Construction & Architectural Coating	60.23	12.22	20.76	0.04	1.89	0.80
Building Construction & Finishing/Landscaping	1.22	10.16	16.24	0.04	1.67	0.70
Finishing/Landscaping	0.15	1.37	1.94	0.00	0.10	0.08
MAX DAILY	**60**	**89**	**57**	**0**	**8**	**4**
Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Localized Construction Emissions Worksheet - Unmitigated

*CalEEMod, Version 2020.4.0

Building Demolition

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**				
	Fugitive Dust			0.0953	0.0144
	Off-Road	3.2204	3.7849	0.1119	0.103
	Total	**3.2204**	**3.7849**	**0.2072**	**0.1174**
TOTAL		***3.22***	***3.78***	***0.21***	***0.12***
Onsite	**2022 Winter**				
	Fugitive Dust			0.0953	0.0144
	Off-Road	3.2204	3.7849	0.1119	0.103
	Total	**3.2204**	**3.7849**	**0.2072**	**0.1174**
TOTAL		***3.22***	***3.78***	***0.21***	***0.12***
Onsite	**2022**				
	Fugitive Dust	0.00	0.00	0.10	0.01
	Off-Road	3.22	3.78	0.11	0.10
	Total	**3.22**	**3.78**	**0.21**	**0.12**
TOTAL		***3.22***	***3.78***	***0.21***	***0.12***

Asphalt Demolition

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**				
	Fugitive Dust			1.2922	0.1957
	Off-Road	3.2204	3.7849	0.1119	0.103
	Total	**3.2204**	**3.7849**	**1.4041**	**0.2986**
TOTAL		***3.22***	***3.78***	***1.40***	***0.30***
Onsite	**2022 Winter**				
	Fugitive Dust			1.2922	0.1957
	Off-Road	3.2204	3.7849	0.1119	0.103
	Total	**3.2204**	**3.7849**	**1.4041**	**0.2986**
TOTAL		***3.22***	***3.78***	***1.40***	***0.30***
Onsite	**2022**				
	Fugitive Dust	0.00	0.00	1.29	0.20
	Off-Road	3.22	3.78	0.11	0.10
	Total	**3.22**	**3.78**	**1.40**	**0.30**
TOTAL		***3.22***	***3.78***	***1.40***	***0.30***

Site Preparation

		NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**			
	Fugitive Dust			0.2267	0.0245
	Off-Road	3.7621	3.2089	0.2101	0.1933
	Total	**3.7621**	**3.2089**	**0.4367**	**0.2177**
TOTAL		***3.76***	***3.21***	***0.44***	***0.22***
Onsite		**2022 Winter**			
	Fugitive Dust			0.2267	0.0245
	Off-Road	3.7621	3.2089	0.2101	0.1933
	Total	**3.7621**	**3.2089**	**0.4367**	**0.2177**
TOTAL		***3.76***	***3.21***	***0.44***	***0.22***
Onsite		**2022**			
	Fugitive Dust	0.00	0.00	0.23	0.02
	Off-Road	3.76	3.21	0.21	0.19
	Total	**3.76**	**3.21**	**0.44**	**0.22**
TOTAL		***3.76***	***3.21***	***0.44***	***0.22***

Building Construction

		NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**			
	Off-Road	6.5142	9.7087	0.279	0.2567
	Total	**6.5142**	**9.7087**	**0.279**	**0.2567**
TOTAL		***6.51***	***9.71***	***0.28***	***0.26***
Onsite		**2022 Winter**			
	Off-Road	6.5142	9.7087	0.279	0.2567
	Total	**6.5142**	**9.7087**	**0.279**	**0.2567**
TOTAL		***6.51***	***9.71***	***0.28***	***0.26***
Onsite		**2022**			
	Off-Road	6.51	9.71	0.28	0.26
	Total	**6.51**	**9.71**	**0.28**	**0.26**
TOTAL		***6.51***	***9.71***	***0.28***	***0.26***

Rough Grading

		NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**			
	Fugitive Dust			1.1662	0.1274
	Off-Road	47.4838	32.7612	1.8373	1.6903
	Total	**47.4838**	**32.7612**	**3.0036**	**1.8177**
TOTAL		***47.48***	***32.76***	***3.00***	***1.82***

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2022 Winter				
	Fugitive Dust				1.1662	0.1274
	Off-Road		47.4838	32.7612	1.8373	1.6903
	Total		**47.4838**	**32.7612**	**3.0036**	**1.8177**
TOTAL			***47.48***	***32.76***	***3.00***	***1.82***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	1.17	0.13
	Off-Road		47.48	32.76	1.84	1.69
	Total		**47.48**	**32.76**	**3.00**	**1.82**
TOTAL			***47.48***	***32.76***	***3.00***	***1.82***

Utility Trenching

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**				
	Off-Road		2.4086	3.2169	0.1295	0.1192
	Total		**2.4086**	**3.2169**	**0.1295**	**0.1192**
TOTAL			***2.41***	***3.22***	***0.13***	***0.12***
Onsite		**2022 Winter**				
	Off-Road		2.4086	3.2169	0.1295	0.1192
	Total		**2.4086**	**3.2169**	**0.1295**	**0.1192**
TOTAL			***2.41***	***3.22***	***0.13***	***0.12***
Onsite		**2022**				
	Off-Road		2.41	3.22	0.13	0.12
	Total		**2.41**	**3.22**	**0.13**	**0.12**
TOTAL			***2.41***	***3.22***	***0.13***	***0.12***

Fine Grading

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**				
	Fugitive Dust				0	0
	Off-Road		2.3606	2.8848	0.1337	0.123
	Total		**2.3606**	**2.8848**	**0.1337**	**0.123**
TOTAL			***2.36***	***2.88***	***0.13***	***0.12***
Onsite		**2022 Winter**				
	Fugitive Dust				0	0
	Off-Road		2.3606	2.8848	0.1337	0.123
	Total		**2.3606**	**2.8848**	**0.1337**	**0.123**
TOTAL			***2.36***	***2.88***	***0.13***	***0.12***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	0.00	0.00
	Off-Road		2.36	2.88	0.13	0.12
	Total		**2.36**	**2.88**	**0.13**	**0.12**
TOTAL			***2.36***	***2.88***	***0.13***	***0.12***

Architectural Coating

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**				
	Archit. Coating			0	0
	Off-Road	3.3828	5.6686	0.1184	0.1154
	Total	**3.3828**	**5.6686**	**0.1184**	**0.1154**
TOTAL		***3.38***	***5.67***	***0.12***	***0.12***
Onsite	**2022 Winter**				
	Archit. Coating			0	0
	Off-Road	3.3828	5.6686	0.1184	0.1154
	Total	**3.3828**	**5.6686**	**0.1184**	**0.1154**
TOTAL		***3.38***	***5.67***	***0.12***	***0.12***
Onsite	**2022**				
	Archit. Coating	0.00	0.00	0.00	0.00
	Off-Road	3.38	5.67	0.12	0.12
	Total	**3.38**	**5.67**	**0.12**	**0.12**
TOTAL		***3.38***	***5.67***	***0.12***	***0.12***

Finishing/Landscaping

		NOx	CO	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**				
	Off-Road	1.3647	1.8227	0.0734	0.0675
	Total	**1.3647**	**1.8227**	**0.0734**	**0.0675**
TOTAL		***1.36***	***1.82***	***0.07***	***0.07***
Onsite	**2022 Winter**				
	Off-Road	1.3647	1.8227	0.0734	0.0675
	Total	**1.3647**	**1.8227**	**0.0734**	**0.0675**
TOTAL		***1.36***	***1.82***	***0.07***	***0.07***
Onsite	**2022**				
	Off-Road	1.36	1.82	0.07	0.07
	Total	**1.36**	**1.82**	**0.07**	**0.07**
TOTAL		***1.36***	***1.82***	***0.07***	***0.07***

	NOx	CO	PM10 Total	PM2.5 Total
Building Demolition	3.22	3.78	0.21	0.12
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Building Demolition & Asphalt Demolition	6.44	7.57	1.61	0.42
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No

Building Demolition	3.22	3.78	0.21	0.12
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Site Preparation	3.76	3.21	0.44	0.22
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Site Preparation & Building Construction	10.28	12.92	0.72	0.47
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Site Preparation, Building Construction, & Rough Grading	57.76	45.68	3.72	2.29
5-Acre LST	**203**	**1,733**	**91.41**	**29.18**
Exceed Threshold?	No	No	No	No
Building Construction & Rough Grading	54.00	42.47	3.28	2.07
5-Acre LST	**203**	**1,733**	**91.41**	**29.18**
Exceed Threshold?	No	No	No	No
Building Construction, Rough Grading, & Utility Trenching	56.41	45.69	3.41	2.19
5-Acre LST	**203**	**1,733**	**91.41**	**29.18**
Exceed Threshold?	No	No	No	No
Building Construction & Utility Trenching	8.92	12.93	0.41	0.38
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Building Construction	6.51	9.71	0.28	0.26
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Building Construction & Fine Grading	8.87	12.59	0.41	0.38
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Building Construction & Architectural Coating	9.90	15.38	0.40	0.37
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Building Construction & Finishing/Landscaping	7.88	11.53	0.35	0.32
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No
Finishing/Landscaping	1.36	1.82	0.07	0.07
1-acre or Less LST	**89**	**623**	**61.73**	**17.79**
Exceed Threshold?	No	No	No	No

Regional Operation Emissions Worksheet*

*CalEEMod, Version 2020.4.0

Existing Land Use - 2022

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.46	0.00	0.02	0.00	0.00	0.00
Energy	0.00	0.02	0.01	0.00	0.00	0.00
Mobile - Passenger	0.33	0.27	3.64	0.01	0.80	0.21
Mobile - Trucks	0.16	5.03	1.22	0.02	0.87	0.29
Total	**1.94**	**5.31**	**4.89**	**0.03**	**1.67**	**0.51**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.46	0.00	0.02	0.00	0.00	0.00
Energy	0.00	0.02	0.01	0.00	0.00	0.00
Mobile - Passenger	0.32	0.29	3.51	0.01	0.80	0.21
Mobile - Trucks	0.15	5.23	1.22	0.02	0.87	0.29
Total	**1.94**	**5.54**	**4.77**	**0.03**	**1.67**	**0.51**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.46180	0.00020	0.02210	0	0.00008	0.00008
Energy	0.00193	0.01750	0.01470	0.00011	0.00133	0.00133
Mobile - Passenger	0.32610	0.29210	3.63890	0.00756	0.79590	0.21460
Mobile - Trucks	0.15500	5.23000	1.22210	0.02340	0.87440	0.29050
Total	**1.94**	**5.54**	**4.89**	**0.03**	**1.67**	**0.51**

Proposed Project

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	2.95	0.00	0.03	0.00	0.00	0.00
Energy	0.01	0.11	0.09	0.00	0.01	0.01
Mobile - Passenger	0.73	0.60	8.21	0.02	1.80	0.48
Mobile - Trucks	0.47	15.65	3.68	0.07	2.56	0.85
Offroad Equipment	1.00	6.22	35.85	0.05	0.36	0.33
Total	**5.17**	**22.58**	**47.85**	**0.14**	**4.73**	**1.67**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	2.95	0.00	0.03	0.00	0.00	0.00
Energy	0.01	0.11	0.09	0.00	0.01	0.01
Mobile - Passenger	0.72	0.66	7.92	0.02	1.80	0.48
Mobile - Trucks	0.46	16.28	3.70	0.07	2.56	0.85
Offroad Equipment	1.00	6.22	35.85	0.05	0.36	0.33
Total	**5.15**	**23.27**	**47.58**	**0.14**	**4.73**	**1.67**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	2.94990	0.00026	0.02890	0	0.00010	0.00010
Energy	0.01190	0.10810	0.09080	0.00065	0.00821	0.00821
Mobile - Passenger	0.73360	0.65860	8.20620	0.01710	1.79650	0.48440
Mobile - Trucks	0.46840	16.27840	3.69770	0.07040	2.56340	0.84710
Offroad Equipment	1.00456	6.22223	35.84559	0.05275	0.35907	0.33034
Total	**5.17**	**23.27**	**47.85**	**0.14**	**4.73**	**1.67**
Regional Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Net Change

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.49	0.00	0.01	0.00	0.00	0.00
Energy	0.01	0.09	0.08	0.00	0.01	0.01
Mobile - Passenger	0.41	0.33	4.57	0.01	1.00	0.27
Mobile - Trucks	0.31	10.62	2.46	0.05	1.69	0.56
Offroad Equipment	1.00	6.22	35.85	0.05	0.36	0.33
Total	**3.22**	**17.27**	**42.96**	**0.11**	**3.06**	**1.16**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.49	0.00	0.01	0.00	0.00	0.00
Energy	0.01	0.09	0.08	0.00	0.01	0.01
Mobile - Passenger	0.40	0.37	4.40	0.01	1.00	0.27
Mobile - Trucks	0.31	11.05	2.48	0.05	1.69	0.56
Offroad Equipment	1.00	6.22	35.85	0.05	0.36	0.33
Total	**3.22**	**17.73**	**42.81**	**0.11**	**3.06**	**1.16**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.48810	0.00006	0.00680	0	0.00002	0.00002
Energy	0.00997	0.09060	0.07610	0.00054	0.00688	0.00688
Mobile - Passenger	0.40750	0.36650	4.56730	0.00954	1.00060	0.26980
Mobile - Trucks	0.31340	11.04840	2.47560	0.04700	1.68900	0.55660
Offroad Equipment	1.00456	6.22223	35.84559	0.05275	0.35907	0.33034
Total	**3.22**	**17.73**	**42.96**	**0.11**	**3.06**	**1.16**
Regional Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Localized Operation Emissions Worksheet*

*CalEEMod, Version 2020.4.0 and EMFAC2017, Version 1.0.3

Unmitigated

Summer

	NOx	CO	PM10 Total	PM2.5 Total
Area	0.00026	0.03	0.00010	0.00010
Truck Idling	1.10	0.40	0.00	0.00
Offroad Equipment	6.22	35.85	0.36	0.33
Total	**7.33**	**36.27**	**0.36**	**0.33**

Winter

	NOx	CO	PM10 Total	PM2.5 Total
Area	0.00	0.03	0.00	0.00
Truck Idling	1.10	0.40	0.00	0.00
Offroad Equipment	6.22	35.85	0.36	0.33
Total	**7.33**	**36.27**	**0.36**	**0.33**

Max Daily

	NOx	CO	PM10 Total	PM2.5 Total
Area	0.00	0.03	0.00	0.00
Truck Idling	1.10	0.40	0.003	0.00
Offroad Equipment	6.222	35.85	0.36	0.33
Total	**7.33**	**36.27**	**0.36**	**0.33**
5-Acre-LST	**202.99**	**1,732.86**	**22.76**	**7.71**
Exceeds Thresholds?	No	No	No	No

GHG Emissions Inventory

Existing Project - 2021

Area	**5.72E-03**	$MTCO_2e$/Year**	0.001%
Energy	**76**	$MTCO_2e$/Year	10.432%
Mobile - Passenger	**127**	$MTCO_2e$/Year	17.424%
Mobile - Trucks	**445**	$MTCO_2e$/Year	60.803%
Solid Waste	**82**	$MTCO_2e$/Year	11.179%
Water	**1**	$MTCO_2e$/Year	0.161%
Total	**731**	**$MTCO_2e$/Year**	100%

*CalEEMod, Version 2020.4.0

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

***EMFAC2017, Version 1.0.3

Proposed Project

Construction

	$MTCO_2e$ Total*
2022	447.9612

**CalEEMod, Version 2020.4.0*

Operation*

Area	**7.48E-03**	$MTCO_2e$/Year**	0%
Energy	**166**	$MTCO_2e$/Year	6%
Mobile - Passenger	**280**	$MTCO_2e$/Year	9%
Mobile - Trucks	**1,306**	$MTCO_2e$/Year	44%
Diesel Offroad Equipment	**945**	$MTCO_2e$/Year	32%
Electric Offroad Equipment	**78**	$MTCO_2e$/Year	3%
Solid Waste	**162**	$MTCO_2e$/Year	5%
Water	**2**	$MTCO_2e$/Year	0%
Amortized Construction Emissions****	**15**	$MTCO_2e$/Year	1%
Total	**2,954**	**$MTCO_2e$/Year**	100%
SCAQMD Bright-Line Screening Threshold	3,000	$MTCO_2e$/Year	
Exceed Threshold?	**No**		

*CalEEMod, Version 2020.4.0

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

***EMFAC2017, Version 1.0.3

**** Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2009, November 19. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 14. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2.

Net Change

Area	**1.76E-03**	$MTCO_2e$/Year**	0%
Energy	**90**	$MTCO_2e$/Year	3%
Mobile - Passenger	**152**	$MTCO_2e$/Year	5%
Mobile - Trucks	**862**	$MTCO_2e$/Year	29%
Diesel Offroad Equipment	**945**	$MTCO_2e$/Year	32%
Electric Offroad Equipment	**78**	$MTCO_2e$/Year	3%
Solid Waste	**81**	$MTCO_2e$/Year	3%
Water	**0.49**	$MTCO_2e$/Year	0%
Amortized Construction Emissions****	**15**	$MTCO_2e$/Year	1%
Total	**2,223**	**$MTCO_2e$/Year**	75%
SCAQMD Bright-Line Screening Threshold	3,000	$MTCO_2e$/Year	
Exceed Threshold?	**No**		

Electric-Powered Off-Road Equipment Worksheet

Electric Forklifts

Number of Forklifts:[1]	5	
Daily Hours of Operation:[1]	7	hr/unit/day
Total Daily Hours of Operation:	35	hours/day
Operation Days Per Year:[1]	365	Days
Total Annual Hours of Operation:	12,775	hours/year
Power Consumption:[2]	8.7	kilowatt hour/hour/unit
Total Annual Power Consumption:	111,143	kWh/yr
SoCal Edison CO2e Intensity Factor:[3]	512	pounds/megawatt hour
Total Annual GHG Emissions:	25.81	$MTCO_2e$/yr

[1] *Based on information provided by the applicant.*

[2] *EPRI. 2021, August 10 (accessed). Forklift (Lift Truck) Comparison with Capital Costs. https://et.epri.com/ForkliftCalculator.html?ver=1.0*

[3] *Based on CO_2e intensity factor of 512 pounds per megawatt hour; Southern California Edison. 2020. 2020 Sustainability Report. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf*

Electric Yard Truck

Number of Yard Hostlers:[1]	10	
Daily Hours of Operation:[1]	7	hr/unit/day
Total Daily Hours of Operation:	70	hours/day
Operation Days Per Year:[1]	365	Days
Total Annual Hours of Operation:	25,550	hours/year
Power Consumption:[2]	8.75	kilowatt hour/hour/unit
Total Annual Power Consumption:	223,563	kWh/yr
SoCal Edison CO2e Intensity Factor:[3]	512	pounds/megawatt hour
Total Annual GHG Emissions:	51.92	$MTCO_2e$/yr

[1] *Based on information provided by the applicant.*

[2] *Transpower. 2015, July 21. Electric Yard Tractor Demonstration Project: Final Report for San Joaquin Valley Air Pollution Constol District (SJVAPCD) Technology Advancement Program Agreement Number C-21516-A Electric Yard Tracot Demonstration ("EYTD") Project. http://valleyair.org/grants/documents/technologyadvancement/C-21516_TransPower_FinalReport.pdf*

[3] *Based on CO_2e intensity factor of 512 pounds per megawatt hour; Southern California Edison. 2020. 2020 Sustainability Report. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf*

Truck Idling Emissions

Source: California Air Resources Board. EMFAC2017 Project Analysis, Version 1.0.3. https://arb.ca.gov/emfac/project-analysis (Los Angeles County - South Coast Air Basin, year 2022, aggregated emission rates for diesel vehicles)

Vehicle Type	Truck Trips	Trucks	Minutes of Idling per Truck	Minutes per hour
MHDT	37	19	30	0.5
HHDT	0	0	30	0.5

Criteria Air Pollutants, Maximum Summer/Winter

			lbs/day			
Truck Idling	ROG	NOx	CO	SO2	PM10	PM2.5
MHDT	0.01532	1.10380	0.39693	0.00130	0.00250	0.00239
HHDT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	0.01532	1.10380	0.39693	0.00130	0.00250	0.00239

Truck Idling Emissions Factors

Source: California Air Resources Board. EMFAC2017 Project Analysis, Version 1.0.3. https://arb.ca.gov/emfac/project-analysis (Los Angeles County - South Coast Air Basin, year 2022, aggregated emission rates for diesel vehicles)

Annual — g/hour

Region	Calendar Year	Vehicle Category	ROG_IDLEX	CO_IDLEX	NOx_IDLEX	CO2_IDLEX	CH4_IDLEX	PM10_IDLEX	PM2_5_IDLEX	SOx_IDLEX
Los Angeles (SC)	2022	MHDT	0.73153861	18.95193367	52.70260851	6483.531035	0.033978074	0.1194626	0.1142947	0.06185592
Los Angeles (SC)	2022	HHDT	2.36809514	32.09748951	32.49062413	5976.699392	0.109991886	0.0183329	0.01753986	0.05702051

Max Rate — lbs/hour

Region	Calendar Year	Vehicle Category	ROG_IDLEX	CO_IDLEX	NOx_IDLEX	CO2_IDLEX	CH4_IDLEX	PM10_IDLEX	PM2_5_IDLEX	SOx_IDLEX
Los Angeles (SC)	2022	MHDT	0.002	0.042	0.116	14.294	0.000	0.000	0.000	0.000
Los Angeles (SC)	2022	HHDT	0.005	0.071	0.072	13.176	0.000	0.000	0.000	0.000

Annual — g/sec

Region	Calendar Year	Vehicle Category	ROG_IDLEX	CO_IDLEX	NOx_IDLEX	CO2_IDLEX	CH4_IDLEX	PM10_IDLEX	PM2_5_IDLEX	SOx_IDLEX
Los Angeles (SC)	2022	MHDT	0.00020321	0.005264426	0.014639613	1.800980843	9.43835E-06	3.318E-05	3.1749E-05	1.7182E-05
Los Angeles (SC)	2022	HHDT	0.0006578	0.008915969	0.009025173	1.660194276	3.05533E-05	5.092E-06	4.8722E-06	1.5839E-05

Off-Road Equipment Emissions Worksheet: Forklifts (Diesel)

OFFROAD2017*

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	Fuel_gpy	Total_Activity_hpy	Total_Population
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	100	Diesel	0.046704858	0.436140326	0.485819151	0.000645805	0.028701942	0.026405787	69.97602956	2270295.214	2652818.911	3480.237342

**OFFROAD2017, Version 1.0.1., https://www.arb.ca.gov/orion/*

Calculated Emission Rates

Total Annual Hours	2652818.911	**Conversion Rate**	
Total Population	3480.237342	Grams/Pound	453.592
Total Hours/Unit	762.2522976		
Hours/Unit/Day	2.088362459		

	VOC	NOx	CO	SOx	PM10	PM2.5	CO2
Tons/Day	0.046704858	0.436140326	0.485819151	0.000645805	0.028701942	0.026405787	69.97602956
Pounds/Day	93.40971578	872.2806527	971.6383028	1.291610248	57.4038846	52.81157383	139952.0591
lbs/Day/Unit	***0.026840042***	***0.250638266***	***0.279187368***	***0.000371127***	***0.016494244***	***0.015174705***	***40.21336632***
lbs/hour/unit	0.012852195	0.12001665	0.133687218	0.000177712	0.007898171	0.007266317	19.25593239
lbs/min/unit	0.000214203	0.002000277	0.00222812	2.96187E-06	0.000131636	0.000121105	0.320932206
grams/min/unit	0.097160881	0.90730987	1.010657545	0.001343479	0.059709121	0.054932391	145.5722814
grams/sec/unit	0.001619348	0.015121831	0.016844292	2.23913E-05	0.000995152	0.00091554	2.42620469

Project Emissions

Number of Forklifts[1]

Fuel Type	# of Forklifts			
				4.19 kwh
				146.65 kWh/day
Diesel Powered	5			53527.25 kWh/yr
				53.52725 MWh/yr
Daily Hours of Operation	7	hr/unit/day		509 lbs/MWh
Total Daily Op Hours	35	hours/day	146.65	12.35829561 MTCO2e/yr
Days Per Year	365	days/year (Mon-Sun workweek)		

	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	
				Pound Per Day				
Emission Rate (lb/hour/unit)	**0.012852195**	**0.12001665**	**0.133687218**	**0.000177712**	**0.007898171**	**0.007266317**	**19.25593239**	
Total Emissions (lb)	0.450	4.201	4.679	0.006	0.276	0.254	673.958	
				Tons Per Year				**CO2/MT/yr**
	0.082	0.767	0.854	0.001	0.050	0.046	122.997	111.581

(1) Based on information provided by the applicant.

Off-Road Equipment Emissions Worksheet: Yard Trucks (Diesel)

OFFROAD2017*

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	Fuel_gpy	Total_Activity_hpy	Total_Population
Los Angeles (SC)	2022	CHE - Rail Yard Tractor	Aggregate	175	Diesel	0.015721987	0.057296166	0.883301036	0.001318661	0.002341823	0.002154478	142.6695358	4628755.966	1448241.899	337.3412772

**OFFROAD2017, Version 1.0.1., https://www.arb.ca.gov/orion/*

Calculated Emission Rates

Total Annual Hours	1448241.899	**Conversion Rate**	
Total Population	337.3412772	Grams/Pound	453.592
Total Hours/Unit	4293.106113		
Hours/Unit/Day	11.76193456		

	VOC	NOx	CO	SOx	PM10	PM2.5	CO2
Tons/Day	0.015721987	0.057296166	0.883301036	0.001318661	0.002341823	0.002154478	142.6695358
Pounds/Day	31.44397357	114.5923329	1766.602073	2.637321618	4.683646916	4.308955163	285339.0716
lbs/Day/Unit	***0.093211165***	***0.339692592***	***5.236839344***	***0.007817963***	***0.013884002***	***0.012773282***	***845.8468942***
lbs/hour/unit	0.007924816	0.028880674	0.445236225	0.000664683	0.001180418	0.001085985	71.91392625
lbs/min/unit	0.00013208	0.000481345	0.007420604	1.10781E-05	1.96736E-05	1.80997E-05	1.198565437
grams/min/unit	0.059910551	0.218334041	3.365926499	0.005024918	0.008923804	0.0082099	543.6596939
grams/sec/unit	0.000998509	0.003638901	0.056098775	8.37486E-05	0.00014873	0.000136832	9.060994899

Project Emissions

Number of Yard Trucks[1]

Truck Type	Trucks/Day
Diesel Powered	10

Daily Hours of Operation	7	hr/unit/day
Total Daily Op Hours	70	hours/day
Days Per Year	365	days/year

8.75	kwh
612.5	kWh/day
223562.5	kWh/yr
223.5625	MWh/yr
509	lbs/MWh
51.6157931	MTCO2e/yr

	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	
				Pound Per Day				
Emission Rate (lb/hour/unit)	**0.007924816**	**0.028880674**	**0.445236225**	**0.000664683**	**0.001180418**	**0.001085985**	**71.91392625**	
Total Emissions (lb)	0.555	2.022	31.167	0.047	0.083	0.076	5033.975	
				Tons Per Year				**CO2/MT/yr**
	0.101	0.369	5.688	0.008	0.015	0.014	918.700	833.431

(1) Based on information provided by the applicant.

Construction-Related Fuel/Energy Usage

CONSTRUCTION WORKER COMMUTE

Year	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
2022	310,553	10,953	2,276	52	4,813	1,583
Total	**310,553**	**10,953**	**2,276**	**52**	**4,813**	**1,583**

CONSTRUCTION VENDOR TRIPS

Year	Gas		Diesel	
	VMT	Gallons	VMT	Gallons
2022	2,957	587	33,079	4,148
Total	**2,957**	**587**	**33,079**	**4,148**

CONSTRUCTION TRUCK HAUL TRIPS

Year	Gas		Diesel	
	VMT	Gallons	VMT	Gallons
2022	66	16	76,903	11,665
Total	**66**	**16**	**76,903**	**11,665**

CONSTRUCTION OFF-ROAD EQUIPMENT

Year	Gasoline gallons	Diesel gallons
2022	475	20,606
Total	**475**	**20,606**

CONSTRUCTION TOTAL

Year	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
2022	313,576	12,031	112,258	36,470	4,813	1,583
Total	**313,576**	**12,031**	**112,258**	**36,470**	**4,813**	**1,583**

Operation-Related Vehicle Fuel/Energy Usage

Existing Land Use

EXISTING LAND USE COMMUTE

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Passenger Vehicles	363,903	13,900	8,698	342	0	0	5,584	1,836
Trucks	0	0	321,294	39,637	0	0	0	0
Total	**363,903**	**13,900**	**329,992**	**39,979**	**0**	**0**	**5,584**	**1,836**

Proposed Project

PROPOSED COMMUTE

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Passenger Vehicles	821,437	31,377	19,634	771	0	0	12,606	4,112
Trucks	0	0	949,175	120,819	0	0	0	0
Offroad Equipment	0	0	0	99,173	0	0	0	334,705
Total	**821,437**	**31,377**	**968,809**	**220,763**	**0**	**0**	**12,606**	**338,817**

Net Change

NET CHANGE COMMUTE

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Passenger Vehicles	457,534	17,476	10,936	429	0	0	7,021	2,276
Trucks	0	0	627,881	81,182	0	0	0	0
Offroad Equipment	0	0	0	99,173	0	0	0	334,705
Total	**457,534**	**17,476**	**638,817**	**180,785**	**0**	**0**	**7,021**	**336,981**

OPERATION OFF-ROAD EQUIPMENT

Year	Diesel gallons	Electricity kWh
2022	99,173	334,705
Total	**99,173**	**334,705**

Construction Worker Trips Fuel Usage Worksheet

Note: Per CalEEMod methodology, worker vehicles are "LD_Mix", which is 50% LDA, 25% LDT1, and 25% LDT2

Activity[1]	Daily trips[1,2]	Trip miles[2]	Trip days[1]	Annual VMT
				0
	2022			
Building Demolition	5	14.7	31	2,279
Asphalt Demolition	5	14.7	8	588
Site Preparation	3	14.7	5	221
Building Construction	100	14.7	132	194,040
Rough Grading	15	14.7	22	4,851
Utility Trenching	5	14.7	21	1,544
Fine Grading	5	14.7	12	882
Architectural Coating	20	14.7	21	6,174
Finishing/Landscaping	3	14.7	34	1,499
				0
				0

[1] *Based on information provided.*
[2] *Based on CalEEMod defaults.*

Year	LDA VMT	LDT1 VMT	LDT2 VMT	Gasoline[1]						Diesel[1]						Electricity[1]			
				LDA mpg	LDA gallons	LDT1 mpg	LDT1 gallons	LDT2 mpg	LDT2 gallons	LDA mpg	LDA gallons	LDT1 mpg	LDT1 gallons	LDT2 mpg	LDT2 gallons	LDA m/kWh	LDA kWh	LDT1 m/kWh	LDT1 kWh
2022	212,077	53,019	53,019	30.28	6,797	26.12	2,012	24.33	2,144	47.29	40	21.78	1	34.76	11	3.04	1,436	3.04	147

Gasoline		Diesel		Electricity	
VMT	Gallons	VMT	Gallons	VMT	kWh
310,553	10,953	2,276	52	4,813	1,583
310,553	**10,953**	**2,276**	**52**	**4,813**	**1,583**

[1] *EMFAC2017 v1.0.3.*

Year	VMT from gasoline			VMT from diesel			VMT from electricity	
	LDA	LDT1	LDT2	LDA	LDT1	LDT2	LDA	LDT1
2021	97.06%	99.12%	98.39%	0.88%	0.04%	0.72%	2.06%	0.84%
2022	97.06%	99.12%	98.39%	0.88%	0.04%	0.72%	2.06%	0.84%

Appendix C: Evidence Used to Define the Average Number of KWH Required to Displace a Gallong of Gasoline

Table A 3: Evidence from U.S. Department of Energy and U.S. Environmental Protection Agency's fuel economy website[32]

Vehicle	Model year	Electric consumption	Gasoline fuel economy	Number of kWh that are equivalent to 1 gallon
Ford Fusion Energi & Ford C-Max Energi	2013	0.34 kWh per mile	43 mpg	14.6
Chevrolet Volt	2013	0.35 kWh per mile	37 mpg	12.9
Chevrolet Volt	2012	0.36 kWh per mile	37 mpg	13.3
Fisker Karma	2012	0.62 kWh per mile	20 mpg	12.4
Toyota Prius	2013	0.29 kWh per mile & 0.2 gal	50 mpg	13.1
Average for five models	-	-	-	13.3 +/- 0.8

Table A 5: Average power consumption per mile traveled over time for different PEV categories

Year range	**2012- 2020**	**2020-2030**	**2030-2040**	**2040-2050**	**2050**
Efficiency improvement per year	0.3%	0.8%	0.9%	0.9%	
Year	2012	2020	2030	2040	2050
Relative energy efficiency	1.000	0.976	0.901	0.823	0.752

https://www.fhwa.dot.gov/environment/climate_change/mitigation/publications_and_tools/ev_deployment/page08.cfm

0.34	14.6
0.35	12.9
0.36	13.3
0.34	13.3

Year	Estimated Electric Consumption
2013	0.34
2014	0.34
2015	0.34
2016	0.34
2017	0.34
2018	0.34
2019	0.34
2020	0.33
2021	0.33
2022	0.33
2023	0.33
2024	0.32
2025	0.32
2026	0.32
2027	0.32
2028	0.31
2029	0.31
2030	0.31
2031	0.31
2032	0.30
2033	0.30
2034	0.30
2035	0.29

Vendor Trips Fuel Usage Worksheet

Note: Based on CalEEMod methodology, vendor vehicles HHDT (T7).

Activity[1]	Daily trips[1,2]	Trip miles[2]	Trip days[1]	Annual VMT
2022				
Building Demolition	2	6.9	31	428
Asphalt Demolition	2	6.9	8	110
Site Preparation	2	6.9	5	69
Building Construction	39	6.9	132	35,521
Rough Grading	2	6.9	22	304
Utility Trenching	0	6.9	21	0
Fine Grading	2	6.9	12	166
Architectural Coating	0	6.9	21	0
Finishing/Landscaping	0	6.9	34	0

[1] Based on information provided.
[2] Based on CalEEMod defaults.

Year	HHDT (T7) VMT	MHDT (T6) VMT	Gasoline[1]				Diesel[1]			
			HHDT (T7) mpg	HHDT (T7) gallons	MHDT (T6) mpg	MHDT (T6) gallons	HHDT (T7) mpg	HHDT (T7) gallons	MHDT (T6) mpg	MHDT (T6) gallons
2022	18,299	18,299	4.10	4	5.04	583	6.59	2,688	10.52	1,460

VENDOR

Gasoline		Diesel	
VMT	Gallons	VMT	Gallons
2,956.69	586.87	33,079	4,148
2,956.69	**586.87**	**33,079**	**4,148**

[1] EMFAC2017 v1.0.3.

Year	VMT from gasoline		VMT from diesel	
	HHDT (T7)	MHDT (T6)	HHDT (T7)	MHDT (T6)
2022	0.08%	16.07%	96.85%	83.93%

Truck Haul Trips Fuel Usage Worksheet

Note: Hauling vehicles are HHDT (T7)

Activity	Total Trips[1]	Mi/Trip[1]	Annual VMT
2022			
Building Demolition	34	7	238
Asphalt Demolition	117	28	3,276
Rough Grading	2987	25	74,675

[1] *Based on information provided by the District.*

Year	VMT	Gasoline[1]		Diesel[1]	
		HHDT (T7) mpg	HHDT (T7) gallons	HHDT (T7) mpg	HHDT (T7) gallons
2022	78,189	4.10	16	6.59	11,665

Gasoline		Diesel	
VMT	Gallons	VMT	Gallons
66	16	76,903	11,665
66	**16**	**76,903**	**11,665**

[1] *EMFAC2017 v1.0.3.*

Year	VMT from gasoline	VMT from diesel
2022	0.08%	98.36%

Off-Road Construction Equipment Fuel Usage Worksheet

Year	Total Gasoline	Total Diesel Gallons	Total Natural Gas
2022	475	20,606	0
Total	**475**	**20,606**	**0**

Equipment Type[1]	Number of Equipment[1]	Horsepower	OFFROAD2017 Horsepower Category	Fuel Type	Working days[1]	Hours Per Day	Total Hours of Operation	Gasoline Gal/Hr[2]	Total Gasoline gallons	Diesel Gal/Hr[2]	Total Diesel gallons	Natural Gas Gal/Hr[2]	Total Natural Gas gallons
						2022							
Building Demolition													
Excavators	1	311	*600*	*Diesel*	31	8	248	0.00	0	6.68	1,656	0.00	0
Skid Steer Loaders	1	74.3	*75*	*Diesel*	31	8	248	0.00	0	1.34	334	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	31			0.00	0	0.00	0	0.00	0
Tractors/Loaders/Backhoes			*25*	*Select Fuel Type*	31			0.00	0	0.00	0	0.00	0
Welders			*25*	*Select Fuel Type*	31			0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	31		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	31		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	31		0	0.00	0	0.00	0	0.00	0
Asphalt Demolition													
Excavators	1	311	*600*	*Diesel*	8	8	64	0.00	0	6.68	427	0.00	0
Skid Steer Loaders	1	74.3	*75*	*Diesel*	8	8	64	0.00	0	1.34	86	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	8		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	8		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	8		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	8		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	8		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	8		0	0.00	0	0.00	0	0.00	0
Site Preparation													
Crawler Tractors	1	130	*175*	*Diesel*	5	8	40	0.00	0	3.31	132	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	5		0	0.00	0	0.00	0	0.00	0
Building Construction													
Aerial Lifts	3	74	*75*	*Diesel*	132	6	2,376	0.00	0	1.15	2,739	0.00	0
Forklifts	3	173	*175*	*Diesel*	132	8	3,168	0.00	0	1.58	5,015	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	132		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	132		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	132		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	132		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	132		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	132		0	0.00	0	0.00	0	0.00	0
Rough Grading													
Graders	1	179	*300*	*Diesel*	22	8	176	0.00	0	4.58	806	0.00	0
Scrapers	2	365	*600*	*Diesel*	22	8	352	0.00	0	10.55	3,715	0.00	0
Scrapers	2	478	*600*	*Diesel*	22	8	352	0.00	0	10.55	3,715	0.00	0
Tractors/Loaders/Backhoes	1	79	*100*	*Diesel*	22	8	176	0.00	0	1.59	280	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	22		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	22		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	22		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	22		0	0.00	0	0.00	0	0.00	0
Utility Trenching													
Tractors/Loaders/Backhoes	2	70	*75*	*Diesel*	21	8	336	0.00	0	1.37	459	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Fine Grading													
Rollers	1	36	*50*	*Diesel*	12	8	96	0.00	0	0.77	74	0.00	0
Tractors/Loaders/Backhoes	1	79	*100*	*Diesel*	12	8	96	0.00	0	1.59	153	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	12		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	12		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	12		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	12		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	12		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	12		0	0.00	0	0.00	0	0.00	0
Architectural Coating													
Aerial Lifts	3	74	*75*	*Diesel*	21	8	504	0.00	0	1.15	581	0.00	0
Air Compressors	1	78	*100*	*Gasoline*	21	6	126	3.77	475	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	21		0	0.00	0	0.00	0	0.00	0
Finishing/Landscaping													
Tractors/Loaders/Backhoes	1	79	*100*	*Diesel*	34	8	272	0.00	0	1.59	433	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	34		0	0.00	0	0.00	0	0.00	0
Retail Architectural Coatings													
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	0		0	0.00	0	0.00	0	0.00	0
							TOTAL		**475**		**20,606**		**0**

[1] Based on information provided.

[2] OFFROAD2017 v.1.0.1

Off-Road Operation Equipment Fuel Usage Worksheet

Year	Total Gasoline	Total Diesel	Total Natural Gas
	Gallons		
Year 1	0	99,173	0

Equipment Type[1]	Number of Equipment[1]	Horsepower	OFFROAD2017 Horsepower Category	Fuel Type	Working days[1]	Hours Per Day	Total Hours of Operation	Gasoline Gal/Hr[2]	Total Gasoline gallons	Diesel Gal/Hr[2]	Total Diesel gallons	Natural Gas Gal/Hr[2]	Total Natural Gas gallons
Activity 1 *(rename to actual)*													
Forklifts	5	100	*100*	*Diesel*	365	7.00	12,775	0.00	0	0.982	12,543	0.00	0
Yard Tractor	10	175	*175*	*Diesel*	365	7.00	25,550	0.00	0	3.391	86,630	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Activity 2 *(rename to actual)*													
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
Select Equipment Type			*25*	*Select Fuel Type*	365		0	0.00	0	0.00	0	0.00	0
							TOTAL		**0**		**99,173**		**0**

[1] Based on information provided.

[2] OFFROAD2017 v.1.0.1

OFFROAD 2022

		Equipment Type	Horsepower	Gas				Diesel				Natural Gas			
			HP	Fuel (Gal/Yr)	Population	Hrs/Yr	Gal/Hr	Fuel (Gal/Yr)	Population	Hrs/Yr	Gal/Hr	Fuel (Gal/Yr)	Population	Hrs/Yr	Gal/Hr
Air Compressors25	Air Compressors25	Air Compressors	25	425546.2	2891.18	1397595.95	0.304484426	20294	45.5	37040.2	0.54789121	0	0	0	0
Air Compressors50	Air Compressors50	Air Compressors	50	129761.15	119.78	57896.3	2.24126844	228632.35	274.81	223693.9	1.02207682	0	0	0	0
Air Compressors75	Air Compressors75	Air Compressors	75	0	0	0	0	0	0	0	0	0	0	0	0
Air Compressors100	Air Compressors100	Air Compressors	100	707183.85	388.45	187770.6	3.766211803	0	0	0	0	0	0	0	0
Air Compressors175	Air Compressors175	Air Compressors	175	86563.4	26.12	12629	6.85433526	0	0	0	0	0	0	0	0
Air Compressors300	Air Compressors300	Air Compressors	300	0	0	0	0	0	0	0	0	0	0	0	0
Air Compressors600	Air Compressors600	Air Compressors	600	0	0	0	0	0	0	0	0	0	0	0	0
Air Compressors750	Air Compressors750	Air Compressors	750	0	0	0	0	0	0	0	0	0	0	0	0
Air Compressors9999	Air Compressors9999	Air Compressors	9999	0	0	0	0	0	0	0	0	0	0	0	0
Aerial Lifts25	Aerial Lifts25	Aerial Lifts	25	99207	302.95	113701.15	0.872524157	83201.75	453.6	181138.55	0.459326576	183598.65	413.89	155347.65	1.181856629
Aerial Lifts50	Aerial Lifts50	Aerial Lifts	50	207874.8	361.73	130706.5	1.590393745	282188.7887	1140.475579	345146.8993	0.817590392	0	0	0	0
Aerial Lifts75	Aerial Lifts75	Aerial Lifts	75	0	0	0	0	347969.5943	1000.001711	301851.1379	1.152785432	0	0	0	0
Aerial Lifts100	Aerial Lifts100	Aerial Lifts	100	372745.3	361.73	130706.5	2.851773248	144416.4648	381.5937638	115340.597	1.252087024	0	0	0	0
Aerial Lifts175	Aerial Lifts175	Aerial Lifts	175	0	0	0	0	30092.65612	47.90105074	14474.13824	2.079063749	0	0	0	0
Aerial Lifts300	Aerial Lifts300	Aerial Lifts	300	0	0	0	0	1798.270451	1.61464216	490.6279125	3.665242856	0	0	0	0
Aerial Lifts600	Aerial Lifts600	Aerial Lifts	600	0	0	0	0	1277.032639	0.538214053	163.5426375	7.808560865	0	0	0	0
Bore/Drill rigs25	Bore/Drill rigs25	Bore/Drill rigs	25	7099.25	43.41	5380.1	1.31953867	6832.8	12.68	10300.3	0.66335932	0	0	0	0
Bore/Drill rigs50	Bore/Drill rigs50	Bore/Drill rigs	50	1361.45	4.91	529.25	2.572413793	7223.272208	17.74363412	6315.673619	1.143705746	0	0	0	0
Bore/Drill rigs75	Bore/Drill rigs75	Bore/Drill rigs	75	0	0	0	0	11259.9836	13.63458201	6175.496005	1.823332667	0	0	0	0
Bore/Drill rigs100	Bore/Drill rigs100	Bore/Drill rigs	100	15457.75	22.49	2401.7	6.436170213	33992.15644	40.53019582	15471.81083	2.197038008	0	0	0	0
Bore/Drill rigs175	Bore/Drill rigs175	Bore/Drill rigs	175	5383.75	5.57	594.95	9.049079755	52719.1283	42.77149698	13539.40801	3.89375431	0	0	0	0
Bore/Drill rigs300	Bore/Drill rigs300	Bore/Drill rigs	300	0	0	0	0	75652.99323	43.51859736	14079.84926	5.37313943	0	0	0	0
Bore/Drill rigs600	Bore/Drill rigs600	Bore/Drill rigs	600	0	0	0	0	127419.845	36.04759352	12172.40957	10.46792291	0	0	0	0
Bore/Drill rigs750	Bore/Drill rigs750	Bore/Drill rigs	750	0	0	0	0	68967.7292	7.284228743	4109.103011	16.78413245	0	0	0	0
Bore/Drill rigs9999	Bore/Drill rigs9999	Bore/Drill rigs	9999	0	0	0	0	39472.5925	1.120650576	817.3827113	48.29144531	0	0	0	0
Cement and Mortar Mixers25	Cement and Mortar Mixers25	Cement and Mortar Mixers	25	234194.95	6545.81	602731.8	0.388555822	17534.6	176.7	53041.8	0.330580787	0	0	0	0
Cement and Mortar Mixers50	Cement and Mortar Mixers50	Cement and Mortar Mixers	50	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers75	Cement and Mortar Mixers75	Cement and Mortar Mixers	75	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers100	Cement and Mortar Mixers100	Cement and Mortar Mixers	100	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers175	Cement and Mortar Mixers175	Cement and Mortar Mixers	175	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers300	Cement and Mortar Mixers300	Cement and Mortar Mixers	300	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers600	Cement and Mortar Mixers600	Cement and Mortar Mixers	600	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers750	Cement and Mortar Mixers750	Cement and Mortar Mixers	750	0	0	0	0	0	0	0	0	0	0	0	0
Cement and Mortar Mixers9999	Cement and Mortar Mixers9999	Cement and Mortar Mixers	9999	0	0	0	0	0	0	0	0	0	0	0	0
Concrete/Industrial Saws25	Concrete/Industrial Saws25	Concrete/Industrial Saws	25	209710.75	921.34	261821.8	0.80096749	558.45	1.26	755.55	0.739130435	0	0	0	0
Concrete/Industrial Saws50	Concrete/Industrial Saws50	Concrete/Industrial Saws	50	30966.6	18.29	11165.35	2.773455378	8913.3	11.1	6449.55	1.382003396	0	0	0	0
Concrete/Industrial Saws75	Concrete/Industrial Saws75	Concrete/Industrial Saws	75	0	0	0	0	0	0	0	0	0	0	0	0
Concrete/Industrial Saws100	Concrete/Industrial Saws100	Concrete/Industrial Saws	100	30167.25	10.48	6398.45	4.714774672	0	0	0	0	0	0	0	0
Concrete/Industrial Saws175	Concrete/Industrial Saws175	Concrete/Industrial Saws	175	0	0	0	0	0	0	0	0	0	0	0	0
Concrete/Industrial Saws300	Concrete/Industrial Saws300	Concrete/Industrial Saws	300	0	0	0	0	0	0	0	0	0	0	0	0
Concrete/Industrial Saws600	Concrete/Industrial Saws600	Concrete/Industrial Saws	600	0	0	0	0	0	0	0	0	0	0	0	0
Concrete/Industrial Saws750	Concrete/Industrial Saws750	Concrete/Industrial Saws	750	0	0	0	0	0	0	0	0	0	0	0	0
Concrete/Industrial Saws9999	Concrete/Industrial Saws9999	Concrete/Industrial Saws	9999	0	0	0	0	0	0	0	0	0	0	0	0
Cranes25	Cranes25	Cranes	25	0	0	0	0	139.5500519	0.703722276	337.097097	0.413975834	0	0	0	0
Cranes50	Cranes50	Cranes	50	4485.85	5.57	2303.15	1.94770206	2260.93939	7.506370945	3279.327721	0.689452102	0	0	0	0
Cranes75	Cranes75	Cranes	75	0	0	0	0	912.0081716	2.34574092	874.6303057	1.042735617	0	0	0	0
Cranes100	Cranes100	Cranes	100	15351.9	11.14	4628.2	3.3170347	51092.59028	88.19985861	39145.3334	1.305202583	0	0	0	0
Cranes175	Cranes175	Cranes	175	1000.1	0.45	189.8	5.269230769	156451.227	156.9300676	71689.13731	2.182356112	0	0	0	0
Cranes300	Cranes300	Cranes	300	0	0	0	0	269770.6591	174.2885504	82158.17267	3.283552328	0	0	0	0
Cranes600	Cranes600	Cranes	600	0	0	0	0	470359.9588	173.5848281	86061.3176	5.465405038	0	0	0	0
Cranes750	Cranes750	Cranes	750	0	0	0	0	9439.022408	2.34574092	1001.912596	9.421003834	0	0	0	0
Cranes9999	Cranes9999	Cranes	9999	0	0	0	0	25984.121	3.753185473	1860.465139	13.96646487	0	0	0	0
Crawler Tractors25	Crawler Tractors25	Crawler Tractors	25	0	0	0	0	0	0	0	0	0	0	0	0
Crawler Tractors50	Crawler Tractors50	Crawler Tractors	50	0	0	0	0	7322.68925	20.81908657	7104.759396	1.030673784	0	0	0	0
Crawler Tractors75	Crawler Tractors75	Crawler Tractors	75	0	0	0	0	788.120844	2.498290388	507.0411405	1.554352854	0	0	0	0
Crawler Tractors100	Crawler Tractors100	Crawler Tractors	100	0	0	0	0	322614.1304	355.1736168	166072.3834	1.942611552	0	0	0	0
Crawler Tractors175	Crawler Tractors175	Crawler Tractors	175	0	0	0	0	352855.5615	235.0474873	106568.0614	3.311081734	0	0	0	0
Crawler Tractors300	Crawler Tractors300	Crawler Tractors	300	0	0	0	0	370164.2176	182.1670075	81293.53505	4.553427494	0	0	0	0
Crawler Tractors600	Crawler Tractors600	Crawler Tractors	600	0	0	0	0	1294398.697	318.7402153	151368.1903	8.551325707	0	0	0	0
Crawler Tractors750	Crawler Tractors750	Crawler Tractors	750	0	0	0	0	13294.01599	2.290099522	967.4687428	13.74102894	0	0	0	0
Crawler Tractors9999	Crawler Tractors9999	Crawler Tractors	9999	0	0	0	0	74650.66314	6.24572597	3457.9635	21.58804254	0	0	0	0
Crushing/Proc. Equipment25	Crushing/Proc. Equipment25	Crushing/Proc. Equipment	25	3135.35	10.92	3149.95	0.995365006	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment50	Crushing/Proc. Equipment50	Crushing/Proc. Equipment	50	0	0	0	0	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment75	Crushing/Proc. Equipment75	Crushing/Proc. Equipment	75	0	0	0	0	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment100	Crushing/Proc. Equipment100	Crushing/Proc. Equipment	100	11906.3	6.44	1554.9	7.657276995	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment175	Crushing/Proc. Equipment175	Crushing/Proc. Equipment	175	0	0	0	0	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment300	Crushing/Proc. Equipment300	Crushing/Proc. Equipment	300	0	0	0	0	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment600	Crushing/Proc. Equipment600	Crushing/Proc. Equipment	600	0	0	0	0	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment750	Crushing/Proc. Equipment750	Crushing/Proc. Equipment	750	0	0	0	0	0	0	0	0	0	0	0	0
Crushing/Proc. Equipment9999	Crushing/Proc. Equipment9999	Crushing/Proc. Equipment	9999	0	0	0	0	0	0	0	0	0	0	0	0
Dumpers/Tenders25	Dumpers/Tenders25	Dumpers/Tenders	25	22385.45	436.26	65046.65	0.344144549	1744.7	7.62	5037	0.346376812	0	0	0	0
Dumpers/Tenders100	Dumpers/Tenders100	Dumpers/Tenders	100	1281.15	4.02	511	2.507142857	0	0	0	0	0	0	0	0
Excavators25	Excavators25	Excavators	25	0	0	0	0	12357.30299	12.36582151	16566.57362	0.745917851	0	0	0	0
Excavators50	Excavators50	Excavators	50	0	0	0	0	292797.4646	509.0014941	372468.2039	0.786100563	0	0	0	0
Excavators75	Excavators75	Excavators	75	0	0	0	0	68.99993976	0.20860717	66.0090264	1.045310672	0	0	0	0
Excavators100	Excavators100	Excavators	100	0	0	0	0	380018.9542	366.7314043	237525.2602	1.599909643	0	0	0	0
Excavators175	Excavators175	Excavators	175	0	0	0	0	802090.9179	469.9919533	278005.7126	2.885159842	0	0	0	0
Excavators300	Excavators300	Excavators	300	0	0	0	0	1024027.992	406.5753737	236932.3704	4.322026536	0	0	0	0
Excavators600	Excavators600	Excavators	600	0	0	0	0	1821199.805	424.098376	272666.6071	6.679218348	0	0	0	0
Excavators750	Excavators750	Excavators	750	0	0	0	0	14503.33389	2.294678867	1125.966245	12.88078924	0	0	0	0
Excavators9999	Excavators9999	Excavators	9999	0	0	0	0	50563.86261	3.129107545	2123.965532	23.80634801	0	0	0	0
Forklifts25	Forklifts25	Forklifts	25	4310.65	6.94	6252.45	0.689433742	86.20029709	0.483312357	149.0685375	0.578259494	4869.1	3.98	4967.65	0.980161646
Forklifts50	Forklifts50	Forklifts	50	3486976.4	1208.73	2174509.4	1.603569246	198567.5427	556.9788404	395097.3182	0.502578817	6468471.6	2689.41	4845123.15	1.335047923
Forklifts75	Forklifts75	Forklifts	75	0	0	0	0	17534.02907	48.39462601	23067.4757	0.760119109	0	0	0	0
Forklifts100	Forklifts100	Forklifts	100	16104325.6	4265.67	7640873.5	2.107655048	2926261.835	4639.234726	2980270.519	0.981877926	40482310.6	9438.97	17004860.9	2.380631682
Forklifts175	Forklifts175	Forklifts	175	1126594.4	155.89	279235.95	4.034560736	867307.5243	859.1842592	547900.9423	1.582964104	3038296.5	345.41	622284.85	4.882485087
Forklifts300	Forklifts300	Forklifts	300	0	0	0	0	168204.4643	105.79333	74521.76038	2.257118772	0	0	0	0
Forklifts600	Forklifts600	Forklifts	600	0	0	0	0	43590.34931	16.78925315	11226.07402	3.882955806	0	0	0	0
Forklifts750	Forklifts750	Forklifts	750	0	0	0	0	677.4028394	0.241656178	52.17398811	12.98353574	0	0	0	0
Forklifts9999	Forklifts9999	Forklifts	9999	0	0	0	0	3149.397788	0.436941286	344.4026628	9.144522178	0	0	0	0
Generator Sets25	Generator Sets25	Generator Sets	25	6184899.45	75938.47	8725135.2	0.708860013	530735.55	2585.49	872813.55	0.608074371	0	0	0	0
Generator Sets50	Generator Sets50	Generator Sets	50	1008286.95	3941.99	452764.25	2.226957959	629690.7	1333.85	450289.55	1.398412866	0	0	0	0
Generator Sets75	Generator Sets75	Generator Sets	75	0	0	0	0	0	0	0	0	0	0	0	0
Generator Sets100	Generator Sets100	Generator Sets	100	454943.3	761.3	87446.7	5.202521079	0	0	0	0	40730.35	56.63	6515.25	6.251540616
Generator Sets175	Generator Sets175	Generator Sets	175	74288.45	71.93	8267.25	8.985871965	0	0	0	0	58878.15	46.98	5391.05	10.92146242
Generator Sets300	Generator Sets300	Generator Sets	300	0	0	0	0	0	0	0	0	0	0	0	0
Generator Sets600	Generator Sets600	Generator Sets	600	0	0	0	0	0	0	0	0	0	0	0	0
Generator Sets750	Generator Sets750	Generator Sets	750	0	0	0	0	0	0	0	0	0	0	0	0
Generator Sets9999	Generator Sets9999	Generator Sets	9999	0	0	0	0	0	0	0	0	0	0	0	0
Graders25	Graders25	Graders	25	0	0	0	0	56.29162018	0.419259876	95.7872322	0.587673523	0	0	0	0
Graders50	Graders50	Graders	50	0	0	0	0	1880.479361	6.079268199	2142.520916	0.877694751	0	0	0	0
Graders75	Graders75	Graders	75	0	0	0	0	811.1768655	1.677039503	533.7743515	1.519699969	0	0	0	0
Graders100	Graders100	Graders	100	0	0	0	0	43083.52342	61.63120175	23068.91807	1.867600522	0	0	0	0
Graders175	Graders175	Graders	175	0	0	0	0	489889.8789	329.5382624	155476.0881	3.150901755	0	0	0	0
Graders300	Graders300	Graders	300	0	0	0	0	1033169.492	297.255252	225712.7945	4.577363433	0	0	0	0
Graders600	Graders600	Graders	600	0	0	0	0	44405.5389	7.756307703	5944.076694	7.470552819	0	0	0	0
Graders750	Graders750	Graders	750	0	0	0	0	0	0	0	0	0	0	0	0
Graders9999	Graders9999	Graders	9999	0	0	0	0	35066.52632	1.257779627	916.6838122	38.25367684	0	0	0	0
Off-Highway Tractors25	Off-Highway Tractors25	Off-Highway Tractors	25	0	0	0	0	0	0	0	0	0	0	0	0
Off-Highway Tractors50	Off-Highway Tractors50	Off-Highway Tractors	50	0	0	0	0	121434.6118	195.3332512	128751.3736	0.943171388	0	0	0	0
Off-Highway Tractors75	Off-Highway Tractors75	Off-Highway Tractors	75	0	0	0	0	69787.75283	72.04071435	43903.56474	1.589569167	0	0	0	0
Off-Highway Tractors100	Off-Highway Tractors100	Off-Highway Tractors	100	0	0	0	0	84571.77254	69.77657762	47525.00573	1.779521564	0	0	0	0
Off-Highway Tractors175	Off-Highway Tractors175	Off-Highway Tractors	175	0	0	0	0	132123.2517	54.13345107	37095.19925	3.56173452	0	0	0	0
Off-Highway Tractors300	Off-Highway Tractors300	Off-Highway Tractors	300	0	0	0	0	111319.8201	35.60869595	23142.94067	4.810098323	0	0	0	0
Off-Highway Tractors600	Off-Highway Tractors600	Off-Highway Tractors	600	0	0	0	0	372285.5898	67.30661027	46328.67462	8.035748764	0	0	0	0
Off-Highway Tractors750	Off-Highway Tractors750	Off-Highway Tractors	750	0	0	0	0	16327.02192	1.6466449	1156.359355	14.11933224	0	0	0	0
Off-Highway Tractors9999	Off-Highway Tractors9999	Off-Highway Tractors	9999	0	0	0	0	20541.79607	1.029153062	557.488416	36.8470366	0	0	0	0
Off-Highway Trucks25	Off-Highway Trucks25	Off-Highway Trucks	25	0	0	0	0	478.4202804	0.611817466	871.9965583	0.548649276	0	0	0	0
Off-Highway Trucks50	Off-Highway Trucks50	Off-Highway Trucks	50	0	0	0	0	11233.62635	11.01271439	17830.15137	0.630035389	0	0	0	0
Off-Highway Trucks75	Off-Highway Trucks75	Off-Highway Trucks	75	0	0	0	0	3364.676557	1.631513243	2391.642177	1.406847809	0	0	0	0
Off-Highway Trucks100	Off-Highway Trucks100	Off-Highway Trucks	100	0	0	0	0	8301.610574	3.670904797	4801.921736	1.728810054	0	0	0	0
Off-Highway Trucks175	Off-Highway Trucks175	Off-Highway Trucks	175	0	0	0	0	277867.6585	63.62901648	89312.20319	3.111194759	0	0	0	0
Off-Highway Trucks300	Off-Highway Trucks300	Off-Highway Trucks	300	0	0	0	0	566527.0532	107.2719957	136617.6088	4.14680844	0	0	0	0
Off-Highway Trucks600	Off-Highway Trucks600	Off-Highway Trucks	600	0	0	0	0	2423109.69	239.6285076	326191.7107	7.428483344	0	0	0	0
Off-Highway Trucks750	Off-Highway Trucks750	Off-Highway Trucks	750	0	0	0	0	824752.4427	51.59660631	63078.92175	13.07492931	0	0	0	0
Off-Highway Trucks9999	Off-Highway Trucks9999	Off-Highway Trucks	9999	0	0	0	0	1456829.184	40.99177023	57992.77992	25.1208717	0	0	0	0
Pavers25	Pavers25	Pavers	25	19126	42.51	16844.75	1.135427952	3317.85	4.75	3912.8	0.847947761	0	0	0	0
Pavers50	Pavers50	Pavers	50	14464.95	15.85	6212.3	2.328437133	8031.548898	24.42914185	8668.167471	0.926556729	0	0	0	0
Pavers75	Pavers75	Pavers	75	0	0	0	0	12268.53505	23.61483712	7984.230128	1.536595871	0	0	0	0
Pavers100	Pavers100	Pavers	100	12997.65	8.68	3416.4	3.804487179	65216.53329	94.45934847	37551.43914	1.73672527	0	0	0	0
Pavers175	Pavers175	Pavers	175	0	0	0	0	106034.6808	80.81974427	31195.54266	3.399033059	0	0	0	0
Pavers300	Pavers300	Pavers	300	0	0	0	0	82805.88655	38.88305077	17492.61032	4.73376386	0	0	0	0
Pavers600	Pavers600	Pavers	600	0	0	0	0	15059.38712	4.275099823	1860.421199	8.094611655	0	0	0	0
Pavers750	Pavers750	Pavers	750	0	0	0	0	3106.322473	0.407152364	192.7861467	16.11278884	0	0	0	0
Pavers9999	Pavers9999	Pavers	9999	0	0	0	0	0	0	0	0	0	0	0	0
Paving Equipment25	Paving Equipment25	Paving Equipment	25	405606.25	4653.79	880358.1	0.460728708	3927.4	8.24	6840.1	0.574172892	0	0	0	0
Paving Equipment50	Paving Equipment50	Paving Equipment	50	16914.1	43.24	7570.1	2.234329797	9999.692597	30.08082237	14172.41813	0.705574201	0	0	0	0
Paving Equipment75	Paving Equipment75	Paving Equipment	75	0	0	0	0	1547.978119	3.048731997	1221.491977	1.267284721	0	0	0	0
Paving Equipment100	Paving Equipment100	Paving Equipment	100	6978.8	11.15	1945.45	3.587242026	41578.81811	55.08042475	25401.2751	1.63687917	0	0	0	0
Paving Equipment175	Paving Equipment175	Paving Equipment	175	0	0	0	0	45072.23222	36.78803277	16932.09379	2.661940855	0	0	0	0
Paving Equipment300	Paving Equipment300	Paving Equipment	300	0	0	0	0	30249.93797	15.24365999	7133.921782	4.240295716	0	0	0	0
Paving Equipment600	Paving Equipment600	Paving Equipment	600	0	0	0	0	32397.66168	9.552693591	4444.828439	7.288844131	0	0	0	0
Paving Equipment750	Paving Equipment750	Paving Equipment	750	0	0	0	0	6466.590168	1.016243999	549.7990881	11.76173316	0	0	0	0
Paving Equipment9999	Paving Equipment9999	Paving Equipment	9999	0	0	0	0	2934.636621	0.4064976	189.4577939	15.48965899	0	0	0	0
Rollers25	Rollers25	Rollers	25	94553.25	503.55	125395.75	0.754038713	72390.45	272.14	189314.55	0.382381861	0	0	0	0
Rollers50	Rollers50	Rollers	50	18790.2	11.14	6927.7	2.712328767	164688.3147	617.3209126	213769.2814	0.770402153	0	0	0	0
Rollers75	Rollers75	Rollers	75	0	0	0	0	1827.242138	5.86329225	1349.139761	1.354375722	0	0	0	0
Rollers100	Rollers100	Rollers	100	58973.05	20.97	13030.5	4.525770308	255880.2178	455.2427626	151062.27	1.693872453	0	0	0	0
Rollers175	Rollers175	Rollers	175	0	0	0	0	266342.9136	266.3609908	95537.27497	2.787842899	0	0	0	0
Rollers300	Rollers300	Rollers	300	0	0	0	0	44111.51497	34.13273703	10510.37284	4.19695054	0	0	0	0
Rollers600	Rollers600	Rollers	600	0	0	0	0	25854.2926	12.35479438	3794.335973	6.813917582	0	0	0	0
Rollers750	Rollers750	Rollers	750	0	0	0	0	0	0	0	0	0	0	0	0
Rollers9999	Rollers9999	Rollers	9999	0	0	0	0	0	0	0	0	0	0	0	0
Rough Terrain Forklifts25	Rough Terrain Forklifts25	Rough Terrain Forklifts	25	0	0	0	0	86.20029709	0.483312357	149.0685375	0.578259494	0	0	0	0
Rough Terrain Forklifts50	Rough Terrain Forklifts50	Rough Terrain Forklifts	50	3044.1	2.23	927.1	3.283464567	8302.767049	27.54880435	7522.99219	1.103652222	0	0	0	0
Rough Terrain Forklifts75	Rough Terrain Forklifts75	Rough Terrain Forklifts	75	0	0	0	0	228.8860252	0.724968535	165.9077611	1.379598059	0	0	0	0
Rough Terrain Forklifts100	Rough Terrain Forklifts100	Rough Terrain Forklifts	100	66758.5	31.68	13096.2	5.09754738	655944.8031	1158.983032	327439.5325	2.003254763	0	0	0	0
Rough Terrain Forklifts175	Rough Terrain Forklifts175	Rough Terrain Forklifts	175	3763.15	1.13	459.9	8.182539683	144272.8707	202.0245652	55355.22112	2.606310078	0	0	0	0
Rough Terrain Forklifts300	Rough Terrain Forklifts300	Rough Terrain Forklifts	300	0	0	0	0	10588.81417	9.666247139	2421.811628	4.372269935	0	0	0	0
Rough Terrain Forklifts600	Rough Terrain Forklifts600	Rough Terrain Forklifts	600	0	0	0	0	3936.757727	1.933249428	494.6867021	7.958082783	0	0	0	0
Rough Terrain Forklifts750	Rough Terrain Forklifts750	Rough Terrain Forklifts	750	0	0	0	0	677.4028394	0.241656178	52.17398811	12.98353574	0	0	0	0
Rough Terrain Forklifts9999	Rough Terrain Forklifts9999	Rough Terrain Forklifts	9999	0	0	0	0	0	0	0	0	0	0	0	0
Rubber Tired Dozers25	Rubber Tired Dozers25	Rubber Tired Dozers	25	0	0	0	0	0	0	0	0	0	0	0	0
Rubber Tired Dozers50	Rubber Tired Dozers50	Rubber Tired Dozers	50	0	0	0	0	7315.859953	8.16832542	7759.963377	0.942769907	0	0	0	0
Rubber Tired Dozers75	Rubber Tired Dozers75	Rubber Tired Dozers	75	0	0	0	0	7354.833538	6.972960725	5225.805176	1.407406761	0	0	0	0
Rubber Tired Dozers100	Rubber Tired Dozers100	Rubber Tired Dozers	100	0	0	0	0	23334.42838	15.53974104	13407.9386	1.740344215	0	0	0	0
Rubber Tired Dozers175	Rubber Tired Dozers175	Rubber Tired Dozers	175	0	0	0	0	32858.02555	14.34437635	11272.28161	2.914940088	0	0	0	0
Rubber Tired Dozers300	Rubber Tired Dozers300	Rubber Tired Dozers	300	0	0	0	0	35526.72911	11.15673716	7828.466442	4.538146695	0	0	0	0
Rubber Tired Dozers600	Rubber Tired Dozers600	Rubber Tired Dozers	600	0	0	0	0	369656.1513	66.94042296	48639.45136	7.599924361	0	0	0	0
Rubber Tired Dozers750	Rubber Tired Dozers750	Rubber Tired Dozers	750	0	0	0	0	10568.69103	0.796909797	794.7265775	13.29852471	0	0	0	0
Rubber Tired Dozers9999	Rubber Tired Dozers9999	Rubber Tired Dozers	9999	0	0	0	0	0	0	0	0	0	0	0	0
Scrapers25	Scrapers25	Scrapers	25	0	0	0	0	58.56335263	0.205317872	84.43520914	0.693589241	0	0	0	0
Scrapers50	Scrapers50	Scrapers	50	0	0	0	0	466.1193715	1.231907234	441.1739677	1.056543236	0	0	0	0
Scrapers75	Scrapers75	Scrapers	75	0	0	0	0	4113.375203	5.543582555	2429.388601	1.693173007	0	0	0	0
Scrapers100	Scrapers100	Scrapers	100	0	0	0	0	18538.72607	13.55097958	8195.609758	2.262031334	0	0	0	0
Scrapers175	Scrapers175	Scrapers	175	0	0	0	0	250103.4026	133.6619349	59699.21099	4.189392095	0	0	0	0
Scrapers300	Scrapers300	Scrapers	300	0	0	0	0	294776.7383	130.5821669	53032.34761	5.55843276	0	0	0	0
Scrapers600	Scrapers600	Scrapers	600	0	0	0	0	3652877.582	720.6657322	346083.9734	10.55488801	0	0	0	0
Scrapers750	Scrapers750	Scrapers	750	0	0	0	0	56125.42179	9.855257876	3598.816247	15.59552307	0	0	0	0
Scrapers9999	Scrapers9999	Scrapers	9999	0	0	0	0	84412.75304	5.338264683	2118.854665	39.83885938	0	0	0	0
Skid Steer Loaders25	Skid Steer Loaders25	Skid Steer Loaders	25	309676.95	879.3	280736.1	1.103089165	319104.9	609.03	508357.4	0.627717625	0	0	0	0
Skid Steer Loaders50	Skid Steer Loaders50	Skid Steer Loaders	50	90268.15	152.11	47194.5	1.912683681	124648.2657	427.5717884	134624.1737	0.925898093	0	0	0	0
Skid Steer Loaders75	Skid Steer Loaders75	Skid Steer Loaders	75	0	0	0	0	652894.6906	1359.2416	485436.1672	1.344965074	0	0	0	0
Skid Steer Loaders100	Skid Steer Loaders100	Skid Steer Loaders	100	120552.2	90.99	28236.4	4.269389866	9512.441212	20.5624509	6662.956663	1.427660676	0	0	0	0
Skid Steer Loaders175	Skid Steer Loaders175	Skid Steer Loaders	175	0	0	0	0	4472.84324	5.723568808	1545.447553	2.89420578	0	0	0	0
Skid Steer Loaders300	Skid Steer Loaders300	Skid Steer Loaders	300	0	0	0	0	4156.636498	3.603728509	1063.554631	3.908249164	0	0	0	0
Skid Steer Loaders600	Skid Steer Loaders600	Skid Steer Loaders	600	0	0	0	0	1201.696559	0.42396806	133.1864861	9.022661339	0	0	0	0
Skid Steer Loaders750	Skid Steer Loaders750	Skid Steer Loaders	750	0	0	0	0	0	0	0	0	0	0	0	0
Skid Steer Loaders9999	Skid Steer Loaders9999	Skid Steer Loaders	9999	0	0	0	0	1626.662009	0.42396806	85.48150834	19.02940227	0	0	0	0
Surfacing Equipment25	Surfacing Equipment25	Surfacing Equipment	25	198052.65	1255.97	537371.25	0.368558329	0	0	0	0	0	0	0	0
Surfacing Equipment50	Surfacing Equipment50	Surfacing Equipment	50	0	0	0	0	1155.306637	7.50022009	1829.111308	0.631621833	0	0	0	0
Surfacing Equipment75	Surfacing Equipment75	Surfacing Equipment	75	0	0	0	0	696.6271679	2.692386699	669.6050043	1.040355379	0	0	0	0
Surfacing Equipment100	Surfacing Equipment100	Surfacing Equipment	100	0	0	0	0	7147.395687	18.46208022	5124.631212	1.394714154	0	0	0	0
Surfacing Equipment175	Surfacing Equipment175	Surfacing Equipment	175	0	0	0	0	5867.117516	10.96186013	2723.89516	2.153943956	0	0	0	0
Surfacing Equipment300	Surfacing Equipment300	Surfacing Equipment	300	0	0	0	0	11897.01945	13.65424683	3360.766849	3.539971674	0	0	0	0
Surfacing Equipment600	Surfacing Equipment600	Surfacing Equipment	600	0	0	0	0	41719.66887	22.6929736	6493.498923	6.424836496	0	0	0	0
Surfacing Equipment750	Surfacing Equipment750	Surfacing Equipment	750	0	0	0	0	16154.28643	5.577086733	1621.507394	9.962511728	0	0	0	0
Surfacing Equipment9999	Surfacing Equipment9999	Surfacing Equipment	9999	0	0	0	0	6893.753691	1.923133356	511.2109072	13.48514594	0	0	0	0
Tractors/Loaders/Backhoes25	Tractors/Loaders/Backhoes25	Tractors/Loaders/Backhoes	25	0	0	0	0	60871.05	89.44	84333.25	0.72179182	0	0	0	0
Tractors/Loaders/Backhoes50	Tractors/Loaders/Backhoes50	Tractors/Loaders/Backhoes	50	0	0	0	0	246171.6444	598.3998931	309366.2746	0.795728768	0	0	0	0
Tractors/Loaders/Backhoes75	Tractors/Loaders/Backhoes75	Tractors/Loaders/Backhoes	75	0	0	0	0	36252.16783	115.7184462	26526.97668	1.366615136	0	0	0	0
Tractors/Loaders/Backhoes100	Tractors/Loaders/Backhoes100	Tractors/Loaders/Backhoes	100	50026.9	19.6	17092.95	2.926756353	3931683.53	3947.354277	2471598.783	1.59074505	0	0	0	0
Tractors/Loaders/Backhoes175	Tractors/Loaders/Backhoes175	Tractors/Loaders/Backhoes	175	0	0	0	0	686041.4525	454.5337167	252326.3914	2.718865231	0	0	0	0
Tractors/Loaders/Backhoes300	Tractors/Loaders/Backhoes300	Tractors/Loaders/Backhoes	300	0	0	0	0	432492.0443	193.0725788	108790.7579	3.975448399	0	0	0	0
Tractors/Loaders/Backhoes600	Tractors/Loaders/Backhoes600	Tractors/Loaders/Backhoes	600	0	0	0	0	564553.9997	162.4228281	88040.81909	6.412411942	0	0	0	0
Tractors/Loaders/Backhoes750	Tractors/Loaders/Backhoes750	Tractors/Loaders/Backhoes	750	0	0	0	0	10684.07897	1.876515344	890.5522455	11.99713888	0	0	0	0
Tractors/Loaders/Backhoes9999	Tractors/Loaders/Backhoes9999	Tractors/Loaders/Backhoes	9999	0	0	0	0	192783.9487	8.757071606	5465.499433	35.27288788	0	0	0	0
Trenchers25	Trenchers25	Trenchers	25	190650.45	451.47	196107.2	0.972174658	28904.35	48.84	30214.7	0.956632037	0	0	0	0
Trenchers50	Trenchers50	Trenchers	50	89899.5	101.5	40825.25	2.202056325	87281.88315	196.2209796	75591.19967	1.154656673	0	0	0	0
Trenchers75	Trenchers75	Trenchers	75	0	0	0	0	5210.681916	10.47998414	2838.815499	1.835512705	0	0	0	0
Trenchers100	Trenchers100	Trenchers	100	56147.95	33.68	13548.8	4.144127155	57538.27014	80.04924055	26419.19637	2.177896304	0	0	0	0
Trenchers175	Trenchers175	Trenchers	175	0	0	0	0	13450.09483	12.48678961	3685.747893	3.649217261	0	0	0	0
Trenchers300	Trenchers300	Trenchers	300	0	0	0	0	29044.29595	16.05444379	4950.670079	5.866740358	0	0	0	0
Trenchers600	Trenchers600	Trenchers	600	0	0	0	0	44069.78149	12.04083284	4437.671029	9.930835612	0	0	0	0
Trenchers750	Trenchers750	Trenchers	750	0	0	0	0	14156.1557	1.783827087	841.0739144	16.83104833	0	0	0	0
Trenchers9999	Trenchers9999	Trenchers	9999	0	0	0	0	1138.987576	0.222978386	50.9433019	22.35794567	0	0	0	0
Welders25	Welders25	Welders	25	1544924.55	9279.76	1927805.9	0.801390093	239582.35	953.34	612229.1	0.391327936	0	0	0	0
Welders50	Welders50	Welders	50	314166.45	625.96	130038.55	2.415948578	1049451.65	1373.5	882073.6	1.189755197	0	0	0	0
Welders75	Welders75	Welders	75	0	0	0	0	0	0	0	0	0	0	0	0
Welders100	Welders100	Welders	100	441522.25	638.91	132721.3	3.326687201	0	0	0	0	0	0	0	0
Welders175	Welders175	Welders	175	55067.55	44.05	9150.55	6.017949741	0	0	0	0	0	0	0	0
Welders300	Welders300	Welders	300	0	0	0	0	0	0	0	0	0	0	0	0
Welders600	Welders600	Welders	600	0	0	0	0	0	0	0	0	0	0	0	0
Welders750	Welders750	Welders	750	0	0	0	0	0	0	0	0	0	0	0	0
Welders9999	Welders9999	Welders	9999	0	0	0	0	0	0	0	0	0	0	0	0
Yard Tractor175	Yard Tractor175	Yard Tractor	175	0	0	0	0	14047747.52	1460.985384	4143153.486	3.390593074	0	0	0	0
Yard Tractor300	Yard Tractor300	Yard Tractor	300	0	0	0	0	10918494.49	912.8058089	2506466.84	4.356129636	0	0	0	0

Model Output: OFFROAD2017 (v1.0.1) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2022
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2017 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bi	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumptio	Total_Activity_	Total_Population	Horsepower_Hours_hl	Horsepower_Hours_hhpy
Los Angeles (SC)	2022	Agricultural - Agricultural Tractors	Aggregate	50	Diesel	0.00415234	0.005024331	0.00597937	0.013260138	0.012004766	0.169079291	0.001115266	0.001026044	1.44914E-06	1.38926E-06	39173.77432	35097.62866	109.3946977	1432061.464	2088751
Los Angeles (SC)	2022	Agricultural - Agricultural Tractors	Aggregate	75	Diesel	0.004017591	0.004861286	0.005785332	0.016359606	0.030047605	0.317243969	0.002336336	0.00214943	2.83222E-06	2.60667E-06	73501.8676	41590.28735	117.9832372	2623340.163	3738643
Los Angeles (SC)	2022	Agricultural - Agricultural Tractors	Aggregate	100	Diesel	0.004578695	0.005540221	0.006593321	0.031677858	0.037440062	0.706976603	0.003034553	0.002791789	6.44283E-06	5.80895E-06	163798.5452	68455.86576	123.5844156	5865293.682	8714042
Los Angeles (SC)	2022	Agricultural - Agricultural Tractors	Aggregate	175	Diesel	0.002868233	0.003470562	0.004130255	0.018736989	0.026306176	0.406861299	0.001527502	0.001405302	3.70082E-06	3.34302E-06	94265.1973	30186.20791	46.35430285	3658246.81	5688313
Los Angeles (SC)	2022	Agricultural - Agricultural Tractors	Aggregate	300	Diesel	0.002278164	0.002756578	0.003280556	0.008547679	0.023681061	0.417431406	0.001009034	0.000928311	3.81606E-06	3.42913E-06	96693.32032	17522.08851	21.15976872	3796919.567	5614662
Los Angeles (SC)	2022	Agricultural - Agricultural Tractors	Aggregate	600	Diesel	0.00122769	0.001485505	0.001767874	0.005511126	0.010786115	0.345975009	0.000490549	0.000451305	3.18333E-06	2.84274E-06	80158.52703	8693.503559	7.774536087	3195743.712	4210965
Los Angeles (SC)	2022	Agricultural - Bale Wagons (Self Propelled)	Aggregate	50	Diesel	1.6802E-06	2.03305E-06	2.41949E-06	1.15519E-05	1.19582E-05	0.000205348	6.21334E-07	5.71627E-07	1.86087E-09	1.68727E-09	47.57686859	46.64398981	0.072960484	1632.539643	4958.396
Los Angeles (SC)	2022	Agricultural - Bale Wagons (Self Propelled)	Aggregate	100	Diesel	1.20396E-05	0.000014568	1.73371E-05	0.000122526	0.000107782	0.002850321	9.00587E-06	8.2854E-06	2.61682E-08	2.342E-08	660.3873438	270.330082	0.435358426	22654.75569	47541.38
Los Angeles (SC)	2022	Agricultural - Bale Wagons (Self Propelled)	Aggregate	175	Diesel	3.09794E-05	3.74851E-05	4.46104E-05	0.000335795	0.000293051	0.008075809	1.80863E-05	1.66394E-05	7.42363E-08	6.63558E-08	1871.074328	559.021453	0.896676891	71934.18473	105499.1
Los Angeles (SC)	2022	Agricultural - Bale Wagons (Self Propelled)	Aggregate	300	Diesel	8.05893E-06	9.7513E-06	1.16049E-05	3.61382E-05	8.69724E-05	0.002455558	3.52247E-06	3.24067E-06	2.26134E-08	2.01764E-08	568.9251926	112.1818207	0.181095311	21702.86696	25562.82
Los Angeles (SC)	2022	Agricultural - Balers (Self Propelled)	Aggregate	50	Diesel	2.88581E-05	3.49183E-05	4.15557E-05	0.00013533	0.000149816	0.002499162	9.43918E-06	8.68405E-06	2.23952E-08	2.05346E-08	579.0278523	429.7745036	1.324629313	19800.6674	36192.31
Los Angeles (SC)	2022	Agricultural - Balers (Self Propelled)	Aggregate	75	Diesel	1.34218E-05	1.62404E-05	1.93274E-05	9.72912E-05	0.000132097	0.002290366	8.18867E-06	7.53358E-06	2.0915E-08	1.8819E-08	530.6521843	281.2568501	0.859782051	18254.74996	27218.75
Los Angeles (SC)	2022	Agricultural - Balers (Self Propelled)	Aggregate	100	Diesel	2.88417E-06	3.48984E-06	4.1532E-06	2.13456E-05	2.61093E-05	0.000502503	1.93916E-06	1.78403E-06	4.59053E-09	4.12887E-09	116.4243008	50.49813284	0.155388989	4001.50804	4044.185
Los Angeles (SC)	2022	Agricultural - Balers (Self Propelled)	Aggregate	175	Diesel	1.16328E-06	1.40757E-06	1.67513E-06	1.01381E-05	1.27997E-05	0.000249889	6.67303E-07	6.13919E-07	2.29094E-09	2.05324E-09	57.89639812	21.10288997	0.065061031	2221.322127	5917.722
Los Angeles (SC)	2022	Agricultural - Combine Harvesters	Aggregate	75	Diesel	2.61323E-06	3.16201E-06	3.76305E-06	1.64649E-05	2.29808E-05	0.000374963	1.67752E-06	1.54331E-06	3.41157E-09	3.08092E-09	86.8747009	60.3508206	0.165712142	3359.016725	6552.796
Los Angeles (SC)	2022	Agricultural - Combine Harvesters	Aggregate	100	Diesel	2.06237E-05	2.49547E-05	2.96981E-05	0.000130497	0.000176892	0.002968177	1.42347E-05	1.30959E-05	2.70076E-08	2.43884E-08	687.693222	305.8377297	0.848422998	25973.14208	41176.82
Los Angeles (SC)	2022	Agricultural - Combine Harvesters	Aggregate	175	Diesel	3.03575E-05	3.67326E-05	4.37148E-05	0.000227084	0.000318998	0.005503528	1.73122E-05	1.59272E-05	5.03134E-08	4.52203E-08	1275.105596	400.7773243	1.125691145	55984.70454	89317.9
Los Angeles (SC)	2022	Agricultural - Combine Harvesters	Aggregate	300	Diesel	0.000151884	0.000183779	0.000218712	0.000659237	0.001977835	0.039877641	7.29937E-05	6.71542E-05	3.66605E-07	3.27659E-07	9239.20181	1699.792102	4.54606255	393194.9679	704643.2

Los Angeles (SC)	2022	Agricultural - Combine Harvesters	Aggregate	600	Diesel	3.26886E-05	3.95533E-05	4.70716E-05	0.000237859	0.00040444	0.015221702	1.69324E-05	1.55778E-05	1.40695E-07	1.25071E-07	3526.697551	442.0093845	0.97866324	146243.6298	193996.3
Los Angeles (SC)	2022	Agricultural - Construction Equipment	Aggregate	50	Diesel	0.000293256	0.000354839	0.000422288	0.001048416	0.000974939	0.014428996	8.23729E-05	0.000075783	1.255E-07	1.18557E-07	3343.03638	3232.606056	8.369733738	143163.9683	218786.8
Los Angeles (SC)	2022	Agricultural - Construction Equipment	Aggregate	75	Diesel	0.000202849	0.000245447	0.000292102	0.001077321	0.001686739	0.023132044	0.000120754	0.000111093	2.09216E-07	1.90067E-07	5359.434962	3627.096735	10.00863438	228473.4724	343479.6
Los Angeles (SC)	2022	Agricultural - Construction Equipment	Aggregate	100	Diesel	0.000392983	0.000475509	0.000565895	0.002488141	0.003178839	0.05468155	0.00026081	0.000239946	4.9716E-07	4.49297E-07	12669.10148	6432.067538	13.25172434	542427.3388	830117.9
Los Angeles (SC)	2022	Agricultural - Construction Equipment	Aggregate	175	Diesel	0.000778175	0.000941591	0.001120572	0.005544894	0.007070145	0.123389699	0.000420877	0.000387207	1.12511E-06	1.01385E-06	28588.00848	11140.00153	17.98666807	1364602.385	1965072
Los Angeles (SC)	2022	Agricultural - Construction Equipment	Aggregate	300	Diesel	0.00042121	0.000509664	0.000606543	0.001648434	0.004600858	0.081465581	0.000195022	0.00017942	7.45605E-07	6.69371E-07	18874.66083	4558.502318	8.173767992	897144.6097	1292927
Los Angeles (SC)	2022	Agricultural - Construction Equipment	Aggregate	600	Diesel	5.94983E-05	7.19929E-05	8.56775E-05	0.000268493	0.000581514	0.009837446	2.50612E-05	2.30563E-05	8.97772E-08	8.08305E-08	2279.225958	311.1949317	0.352486404	109915.8896	134649.2
Los Angeles (SC)	2022	Agricultural - Cotton Pickers	Aggregate	100	Diesel	5.28189E-06	6.39109E-06	7.60593E-06	0.000068248	5.67746E-05	0.001684483	4.25665E-06	3.91611E-06	1.55199E-08	1.38407E-08	390.2758486	167.6671611	0.371600924	15090.04449	25235.4
Los Angeles (SC)	2022	Agricultural - Cotton Pickers	Aggregate	175	Diesel	1.17737E-05	1.42461E-05	1.69541E-05	0.000161243	0.000132592	0.004100096	7.50032E-06	6.9003E-06	3.78085E-08	3.36889E-08	949.9463081	330.2353119	0.72279698	40083.5726	75901.77
Los Angeles (SC)	2022	Agricultural - Cotton Pickers	Aggregate	300	Diesel	1.05955E-05	1.28206E-05	1.52575E-05	5.85388E-05	0.000136318	0.004304969	5.22089E-06	4.80322E-06	3.97507E-08	3.53723E-08	997.4130245	173.4728482	0.375770372	42868.68406	91087.3
Los Angeles (SC)	2022	Agricultural - Cotton Pickers	Aggregate	600	Diesel	3.08257E-05	3.72991E-05	0.000044389	0.000171591	0.000386103	0.012894029	1.53973E-05	1.41656E-05	1.19087E-07	1.05945E-07	2987.401808	393.7766539	0.861878526	127956.4944	112274.9
Los Angeles (SC)	2022	Agricultural - Forage & Silage Harvesters	Aggregate	100	Diesel	1.06003E-06	1.28263E-06	1.52644E-06	6.71717E-06	9.10932E-06	0.000152973	7.32729E-07	6.7411E-07	1.392E-09	1.25692E-09	35.44215471	17.12966907	0.046837522	1370.373526	2288.145
Los Angeles (SC)	2022	Agricultural - Forage & Silage Harvesters	Aggregate	300	Diesel	1.03721E-06	1.25503E-06	1.49359E-06	4.19203E-06	0.000013603	0.000244003	4.9308E-07	4.53633E-07	2.23994E-09	2.00487E-09	56.53265418	11.04560765	0.031121947	2430.033683	3962.774
Los Angeles (SC)	2022	Agricultural - Forage & Silage Harvesters	Aggregate	600	Diesel	1.12531E-05	1.36162E-05	1.62044E-05	6.18766E-05	0.000143298	0.003664958	5.56353E-06	5.11845E-06	3.3774E-08	3.01135E-08	849.1295886	90.01318084	0.222970244	37665.92203	44791.85
Los Angeles (SC)	2022	Agricultural - Forage & Silage Harvesters	Aggregate	750	Diesel	2.09027E-05	2.52923E-05	3.00999E-05	0.000148313	0.000259947	0.009444581	1.07687E-05	9.90722E-06	8.72784E-08	7.76024E-08	2188.203508	154.6091812	0.338952434	93499.55909	66999.09
Los Angeles (SC)	2022	Agricultural - Forage & Silage Harvesters	Aggregate	9999	Diesel	1.28142E-05	1.55051E-05	1.84524E-05	8.92975E-05	0.000285143	0.005630295	6.71609E-06	6.1788E-06	5.20196E-08	4.62619E-08	1304.476271	65.20045812	0.141727356	56072.39398	43414.91
Los Angeles (SC)	2022	Agricultural - Forklifts	Aggregate	50	Diesel	0.000024623	2.97938E-05	3.54571E-05	0.000100448	9.39102E-05	0.00146915	7.07339E-06	6.50752E-06	1.29354E-08	1.20714E-08	340.385641	440.7762972	0.731080016	14599.87462	21258.5
Los Angeles (SC)	2022	Agricultural - Forklifts	Aggregate	75	Diesel	2.01214E-06	2.43469E-06	2.89749E-06	1.13664E-05	1.65202E-05	0.000236946	1.16486E-06	1.07167E-06	2.14502E-09	1.9469E-09	54.8978234	36.22594005	0.043057306	2354.686103	3428.598
Los Angeles (SC)	2022	Agricultural - Forklifts	Aggregate	100	Diesel	7.84187E-07	9.48867E-07	1.12923E-06	4.51741E-06	5.94193E-06	0.000094171	4.92038E-07	4.52675E-07	8.52972E-10	7.73767E-10	21.81836604	12.07531346	0.014352436	935.8367931	1362.648
Los Angeles (SC)	2022	Agricultural - Hay Squeeze/Stack retriever	Aggregate	75	Diesel	1.4824E-06	1.7937E-06	2.13465E-06	6.57347E-06	1.07507E-05	0.000127579	8.96014E-07	8.24333E-07	1.14297E-09	1.04827E-09	29.55867732	19.22045305	0.032549457	1207.462328	1104.486
Los Angeles (SC)	2022	Agricultural - Hay Squeeze/Stack retriever	Aggregate	100	Diesel	1.64151E-06	1.98623E-06	2.36377E-06	7.31536E-06	1.16574E-05	0.000141978	1.03604E-06	9.53154E-07	1.27222E-09	1.16658E-09	32.89471062	17.33855731	0.029342136	1343.738192	3297.07
Los Angeles (SC)	2022	Agricultural - Hay Squeeze/Stack retriever	Aggregate	175	Diesel	3.53903E-05	4.28223E-05	5.09621E-05	0.000187305	0.000315572	0.003895103	1.86248E-05	1.71348E-05	3.5192E-08	3.20045E-08	902.4516837	313.9389822	0.530195372	37841.2248	60194.32
Los Angeles (SC)	2022	Agricultural - Hay Squeeze/Stack retriever	Aggregate	300	Diesel	8.31391E-05	0.000100598	0.00011972	0.000286518	0.000867933	0.011080121	3.74671E-05	3.44698E-05	1.00634E-07	9.1041E-08	2567.139751	490.6870373	0.825749067	116516.6365	163132.3
Los Angeles (SC)	2022	Agricultural - Hay Squeeze/Stack retriever	Aggregate	600	Diesel	2.29142E-05	2.77262E-05	3.29965E-05	0.000118613	0.000237935	0.003317167	1.01422E-05	9.33085E-06	3.01871E-08	2.72559E-08	768.5503974	107.6378322	0.182661106	34232.82585	33182.11
Los Angeles (SC)	2022	Agricultural - Nut Harvester	Aggregate	50	Diesel	5.73016E-05	0.000069335	8.25143E-05	0.000644699	0.000793768	0.015712518	2.65874E-05	2.44604E-05	1.44525E-07	1.29104E-07	3640.414194	3522.459702	8.974924833	141095.6643	205665.2
Los Angeles (SC)	2022	Agricultural - Nut Harvester	Aggregate	75	Diesel	3.40186E-05	4.11625E-05	4.89867E-05	0.000553508	0.000542971	0.014226086	2.11023E-05	1.94141E-05	1.31389E-07	1.1689E-07	3296.024481	1967.352646	4.992759107	128413.5705	201730.2
Los Angeles (SC)	2022	Agricultural - Nut Harvester	Aggregate	100	Diesel	7.51636E-05	0.000090948	0.000108236	0.001919579	0.000983338	0.049653741	6.73882E-05	6.19972E-05	4.59898E-07	4.07985E-07	11504.21461	5440.990586	9.718681527	447648.8176	606675.1
Los Angeles (SC)	2022	Agricultural - Nut Harvester	Aggregate	175	Diesel	8.26275E-05	9.99793E-05	0.000118984	0.001519011	0.000965423	0.039382539	5.42035E-05	4.98672E-05	3.64075E-07	3.23591E-07	9124.492418	3107.540021	6.294991741	382473.9619	641490.6
Los Angeles (SC)	2022	Agricultural - Nut Harvester	Aggregate	300	Diesel	6.30433E-06	7.62824E-06	9.07824E-06	4.31816E-05	7.71576E-05	0.003198337	3.2211E-06	2.96341E-06	2.95794E-08	2.62795E-08	741.0187686	161.5134723	0.331594282	31999.62752	31081.21
Los Angeles (SC)	2022	Agricultural - Nut Harvester	Aggregate	600	Diesel	4.40579E-05	5.33101E-05	6.34434E-05	0.000351858	0.000577564	0.027597517	2.41827E-05	2.22481E-05	2.55542E-07	2.26758E-07	6394.034922	845.6770782	1.984648872	274845.0504	368362.3
Los Angeles (SC)	2022	Agricultural - Other Harvesters	Aggregate	50	Diesel	3.04419E-05	3.68347E-05	4.38364E-05	0.000188924	0.000176171	0.002930534	9.88796E-06	9.09692E-06	2.63627E-08	2.40791E-08	678.971901	688.7303064	0.546347887	26252.49854	37012.8
Los Angeles (SC)	2022	Agricultural - Other Harvesters	Aggregate	75	Diesel	3.66021E-05	4.42885E-05	0.000052707	0.000336617	0.000341611	0.007501586	2.03972E-05	1.87654E-05	6.8723E-08	6.16376E-08	1738.033344	1006.043111	0.71743871	67852.66591	125570
Los Angeles (SC)	2022	Agricultural - Other Harvesters	Aggregate	100	Diesel	0.000128936	0.000156012	0.000185667	0.001150825	0.000997909	0.025407951	8.81044E-05	8.10561E-05	2.32617E-07	2.08767E-07	5886.73707	2656.847352	2.14084152	227648.658	271775.1
Los Angeles (SC)	2022	Agricultural - Other Harvesters	Aggregate	175	Diesel	0.000093116	0.00011267	0.000134087	0.000729331	0.000867991	0.016816246	5.18033E-05	4.76591E-05	1.53724E-07	1.38173E-07	3896.135395	1283.995529	1.894175295	170524.1571	204824.9
Los Angeles (SC)	2022	Agricultural - Other Harvesters	Aggregate	300	Diesel	7.88885E-05	9.54551E-05	0.000113599	0.000310865	0.000859897	0.016862171	3.54736E-05	3.26357E-05	1.54578E-07	1.3855E-07	3906.77589	778.0129336	1.171866959	166032.3724	227252.3
Los Angeles (SC)	2022	Agricultural - Other Harvesters	Aggregate	600	Diesel	2.09106E-05	2.53018E-05	3.01113E-05	0.000110743	0.000225976	0.004209798	9.47856E-06	8.72027E-06	3.85554E-08	3.45903E-08	975.3630301	109.3783566	0.182738339	42099.53684	92695.82
Los Angeles (SC)	2022	Agricultural - Others	Aggregate	50	Diesel	2.11365E-05	2.55752E-05	3.04366E-05	8.87387E-05	8.59165E-05	0.001361464	6.25427E-06	5.75393E-06	1.20377E-08	1.11866E-08	315.4359625	300.660646	0.572829153	13529.72907	19700.29
Los Angeles (SC)	2022	Agricultural - Others	Aggregate	75	Diesel	3.94519E-06	4.77368E-06	5.68108E-06	2.52788E-05	3.49851E-05	0.000561362	2.39458E-06	2.20301E-06	5.10652E-09	4.61249E-09	130.0612071	85.82470442	0.17383289	5578.605787	8122.865
Los Angeles (SC)	2022	Agricultural - Others	Aggregate	100	Diesel	1.60126E-05	1.93753E-05	2.30582E-05	0.000104127	0.000131471	0.002308763	1.05931E-05	9.74565E-06	2.10085E-08	1.89702E-08	534.9145259	263.5117819	0.528674867	22943.638	33407.64
Los Angeles (SC)	2022	Agricultural - Others	Aggregate	175	Diesel	4.50488E-05	0.000054509	6.48702E-05	0.00034113	0.000446301	0.007929058	0.000025205	2.31886E-05	7.24483E-08	6.515E-08	1837.073858	687.0591409	1.39121158	87598.88679	127550.5
Los Angeles (SC)	2022	Agricultural - Others	Aggregate	300	Diesel	5.05254E-05	6.11357E-05	7.27566E-05	0.000208666	0.000571278	0.010384904	2.42874E-05	2.23444E-05	9.51418E-08	8.53287E-08	2406.065828	527.0235294	1.057349722	114730.6556	167056.4
Los Angeles (SC)	2022	Agricultural - Others	Aggregate	600	Diesel	0.000234225	0.000283413	0.000337285	0.001411241	0.002677747	0.052542648	0.000112064	0.000103099	4.82014E-07	4.31722E-07	12173.54188	1553.67422	3.146875676	580482.2123	845225.2
Los Angeles (SC)	2022	Agricultural - Sprayers/Spray rigs	Aggregate	50	Diesel	0.000052906	6.40163E-05	7.61847E-05	0.000213999	0.000206552	0.003264793	1.53882E-05	1.41571E-05	2.87999E-08	2.68255E-08	756.4159638	818.8874546	1.462933369	30761.04604	42692.44
Los Angeles (SC)	2022	Agricultural - Sprayers/Spray rigs	Aggregate	75	Diesel	1.12168E-05	1.35723E-05	1.61522E-05	6.84968E-05	9.79157E-05	0.001504338	6.74904E-06	6.20912E-06	1.36651E-08	1.23606E-08	348.5381241	235.8295143	0.4230389	14235.26327	28474.5
Los Angeles (SC)	2022	Agricultural - Sprayers/Spray rigs	Aggregate	100	Diesel	3.65709E-05	4.42508E-05	5.26621E-05	0.000226819	0.000295937	0.004975974	2.38125E-05	2.19075E-05	4.52168E-08	4.08856E-08	1152.877253	536.1108723	0.955012484	47426.98263	67109.81
Los Angeles (SC)	2022	Agricultural - Sprayers/Spray rigs	Aggregate	175	Diesel	4.74844E-05	5.74562E-05	6.83776E-05	0.000349063	0.00047121	0.008028868	2.63906E-05	2.42794E-05	7.33042E-08	6.59701E-08	1860.198706	692.6990153	1.239410714	82605.47473	144090.6
Los Angeles (SC)	2022	Agricultural - Sprayers/Spray rigs	Aggregate	300	Diesel	1.99277E-05	2.41125E-05	2.86959E-05	8.31165E-05	0.000224832	0.003928412	9.66017E-06	8.88735E-06	3.59659E-08	3.22782E-08	910.1689086	187.0667835	0.33736746	40978.37226	63691.55
Los Angeles (SC)	2022	Agricultural - Sprayers/Spray rigs	Aggregate	600	Diesel	1.21696E-06	1.47253E-06	1.75243E-06	7.7458E-06	1.39057E-05	0.000261136	5.85209E-07	5.38393E-07	2.39402E-09	2.14565E-09	60.50226313	8.3260756	0.015236128	2747.604948	1068.224
Los Angeles (SC)	2022	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	50	Diesel	9.79144E-06	1.18476E-05	1.40997E-05	7.21288E-05	8.12168E-05	0.00147366	3.76025E-06	3.45943E-06	1.34224E-08	1.21085E-08	341.4303842	280.890355	0.643271364	12437.29977	17263.22
Los Angeles (SC)	2022	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	75	Diesel	2.26527E-05	2.74098E-05	3.26199E-05	0.000273255	0.000283825	0.006723914	1.39254E-05	1.28114E-05	6.19033E-08	5.52478E-08	1557.855464	866.1247964	1.873938685	55767.51564	90306.5
Los Angeles (SC)	2022	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	100	Diesel	4.46027E-05	5.39693E-05	6.42279E-05	0.000571775	0.000459415	0.014058247	3.44658E-05	3.17085E-05	1.29509E-07	1.15511E-07	3257.138177	1377.926427	2.990828805	118067.9006	204915.9
Los Angeles (SC)	2022	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	175	Diesel	2.44289E-05	2.95589E-05	3.51776E-05	0.000362185	0.00027038	0.009223101	1.53322E-05	1.41057E-05	8.51112E-08	7.57826E-08	2136.888922	695.5173163	1.44977716	82376.05213	111969.2
Los Angeles (SC)	2022	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	300	Diesel	1.16563E-05	1.41041E-05	1.67851E-05	6.87286E-05	0.000141453	0.004951447	5.69656E-06	5.24084E-06	4.57359E-08	4.06841E-08	1147.19462	220.7229973	0.456670334	45373.82296	38190.15
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	50	Diesel	0.0002815	0.000340615	0.000405361	0.001186355	0.001008689	0.099969246	0.000107875	9.92449E-05	9.1582E-07	8.15936E-07	3243.392078	2441.784094	7.712762499	105336.4032	12636.11
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	75	Diesel	4.33777E-06	5.24871E-06	6.24639E-06	0.000105878	0.000090909	0.016727433	6.23349E-06	5.73481E-06	1.54523E-07	1.36527E-07	542.7031454	340.819389	1.028368333	19597.11487	2350.862
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	100	Diesel	0.000687503	0.000831878	0.000990004	0.006488888	0.00759093	0.946566021	0.000508148	0.000467496	8.73085E-06	7.72574E-06	30710.29208	12553.13673	38.04962833	1108343.804	132956.5
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	175	Diesel	0.001150254	0.001391807	0.001656365	0.017392845	0.016243151	2.933663451	0.000893607	0.000822118	2.70887E-05	2.39442E-05	95179.4798	26127.59934	79.69854583	3436840.269	412281.9
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	300	Diesel	0.000415097	0.000502267	0.00059774	0.00292716	0.007532067	1.530778314	0.000212206	0.00019523	1.41404E-05	0.000012494	49664.41654	8009.255642	24.16665583	1793391.625	215134.5
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Narrow Body	Aggregate	750	Diesel	0.000123093	0.000148943	0.000177254	0.000610573	0.001677752	0.101819158	7.72059E-05	7.10295E-05	9.37676E-07	8.31034E-07	3303.41045	170.4096945	0.514184167	119286.7862	14309.59
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	50	Diesel	3.17536E-06	3.84218E-06	4.57252E-06	0.000066816	5.29988E-05	0.010521523	2.19623E-07	2.02053E-07	9.71814E-08	8.58753E-08	341.3592404	235.504762	0.586000148	11068.72381	1327.8
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	75	Diesel	0.000017301	2.09342E-05	2.49135E-05	0.000240723	0.000235998	0.036766623	1.19612E-05	1.10043E-05	3.39407E-07	3.00084E-07	1192.852594	706.5142859	1.758000443	41684.34287	5000.436
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	100	Diesel	8.69713E-05	0.000105235	0.000125239	0.000946691	0.001215048	0.138741342	7.36495E-05	6.77575E-05	1.28012E-06	1.13239E-06	4501.310055	1884.038096	4.688001182	162262.781	19464.98
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	175	Diesel	9.95262E-05	0.000120427	0.000143318	0.002080741	0.001314181	0.369507058	6.04498E-05	5.56138E-05	3.41329E-06	3.01587E-06	11988.24956	2826.057144	7.032001773	432151.2382	51840.68
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	300	Diesel	0.000658331	0.00079658	0.000947997	0.0064983	0.008848547	3.480809192	0.000269728	0.00024815	3.21621E-05	2.84099E-05	112931.0208	16849.8818	42.19201064	4070938.541	488348.1
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	600	Diesel	0.000636544	0.000770218	0.000916624	0.004625085	0.011045701	1.711003235	0.000365178	0.000335964	0.0000158	0.000013965	55511.61562	5439.192173	14.06400355	2001119.449	240053.5
Los Angeles (SC)	2022	AirGrSupp - A/C Tug Wide Body	Aggregate	750	Diesel	7.88527E-05	9.54118E-05	0.000113548	0.000283246	0.001782112	0.138974942	4.59654E-05	4.22881E-05	1.28253E-06	1.13429E-06	4508.88894	258.0874104	1.172000296	162595.0685	19504.84
Los Angeles (SC)	2022	AirGrSupp - Baggage Tug	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2022	AirGrSupp - Baggage Tug	Aggregate	50	Diesel	0.000439521	0.00053182	0.00063291	0.002354503	0.001856616	0.219384339	0.000176925	0.000162771	2.01513E-06	1.79059E-06	7117.683267	7470.481302	10.32740147	335586.4874	40256.82
Los Angeles (SC)	2022	AirGrSupp - Baggage Tug	Aggregate	75	Diesel	0.000602439	0.000728951	0.000867512	0.010694223	0.008182704	1.570615012	0.00039404	0.000362517	0.000014503	1.28191E-05	50956.87434	40181.75436	54.54986417	2670916.322	320402
Los Angeles (SC)	2022	AirGrSupp - Baggage Tug	Aggregate	100	Diesel	0.000559757	0.000677306	0.00080605	0.010776555	0.00805022	1.578468129	0.00025433	0.000233984	1.45769E-05	1.28832E-05	51211.66007	30018.66925	41.30960587	2687358.7	322374.4
Los Angeles (SC)	2022	AirGrSupp - Baggage Tug	Aggregate	175	Diesel	1.28381E-06	1.5534E-06	1.84868E-06	7.59108E-05	7.0795E-06	0.014337755	2.46837E-07	2.2709E-07	1.32521E-07	1.17023E-07	465.1726643	195.05706	0.264805166	24382.1325	2924.87
Los Angeles (SC)	2022	AirGrSupp - Baggage Tug	Aggregate	300	Diesel	5.60355E-05	0.000067803	8.06912E-05	0.0001895	0.001184693	0.082585468	3.07204E-05	2.82628E-05	7.61863E-07	6.74051E-07	2679.394546	780.22824	1.059220663	140441.0832	16847.25
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	25	Diesel	7.44228E-07	9.00516E-07	1.07169E-06	2.35116E-05	2.25049E-05	0.004736415	7.45417E-08	6.85784E-08	4.37682E-08	3.8658E-08	153.6677691	318.7123401	0.618506008	7967.808502	955.815
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	50	Diesel	0.000218648	0.000264564	0.000314853	0.001273979	0.001028474	0.136124568	7.99865E-05	7.35875E-05	1.25198E-06	1.11103E-06	4416.411684	4940.041271	9.58684313	228994.8163	27470.12
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	75	Diesel	0.000646696	0.000782502	0.000931242	0.005809633	0.007379754	0.82022217	0.000527818	0.000485593	7.56396E-06	6.69454E-06	26611.205	24381.49402	47.31570964	1533962.493	184013.5
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	100	Diesel	0.000555762	0.000672472	0.000800298	0.005426285	0.006036111	0.759407563	0.0005078	0.000467176	7.00443E-06	6.19818E-06	24638.14204	16549.88737	32.47156544	1420239.392	170371.3
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	175	Diesel	2.16071E-05	2.61446E-05	3.11142E-05	0.000311548	0.000225035	0.05100177	1.51793E-05	1.39649E-05	4.70888E-07	4.1627E-07	1654.696257	705.5256075	1.546265021	95388.96896	11442.82
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	300	Diesel	1.06513E-05	1.28881E-05	1.53379E-05	8.54485E-05	0.000124347	0.044905161	5.65541E-06	5.20297E-06	4.14851E-07	3.6651E-07	1456.898507	318.7123401	0.618506008	83980.70161	10074.29
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	600	Diesel	2.93305E-06	3.54899E-06	4.22359E-06	0.000068177	1.89161E-05	0.038770111	6.3657E-07	5.85645E-07	3.58361E-07	3.16436E-07	1257.85355	159.35617	0.309253004	72507.05737	8697.916
Los Angeles (SC)	2022	AirGrSupp - Belt Loader	Aggregate	750	Diesel	3.95863E-05	4.78994E-05	5.70042E-05	0.000610784	0.000528463	0.022737473	2.68869E-05	0.000024736	2.09032E-07	1.8558E-07	737.6922644	68.10092737	0.309253004	42563.0796	5105.849
Los Angeles (SC)	2022	AirGrSupp - Bobtail	Aggregate	25	Diesel	1.68841E-06	2.04298E-06	2.43131E-06	3.28617E-05	4.10022E-05	0.00482366	1.50954E-06	1.38877E-06	4.45465E-08	3.93701E-08	156.4983446	295.1374014	0.636697362	7378.435035	885.114
Los Angeles (SC)	2022	AirGrSupp - Bobtail	Aggregate	50	Diesel	2.31675E-05	2.80326E-05	3.33612E-05	0.000209058	0.000174667	0.03043453	6.67543E-06	6.1414E-06	2.80687E-07	2.48403E-07	987.4148116	1025.619996	2.546789446	46558.80137	5585.174
Los Angeles (SC)	2022	AirGrSupp - Bobtail	Aggregate	75	Diesel	6.72657E-06	8.13915E-06	9.68626E-06	8.94613E-05	0.000127826	0.012843232	7.12291E-06	6.55308E-06	1.1854E-07	1.04825E-07	416.684514	295.1374014	0.636697362	21840.1677	2619.937
Los Angeles (SC)	2022	AirGrSupp - Bobtail	Aggregate	100	Diesel	1.68989E-05	2.04476E-05	2.43344E-05	0.000384561	0.000297781	0.059183001	1.38103E-05	1.27055E-05	5.46669E-07	4.83044E-07	1920.127288	1180.549606	2.546789446	100641.8539	12072.95
Los Angeles (SC)	2022	AirGrSupp - Bobtail	Aggregate	175	Diesel	5.35666E-05	6.48156E-05	7.71359E-05	0.000611386	0.000585512	0.094503699	3.80973E-05	3.50495E-05	8.72127E-07	7.71326E-07	3066.068445	1320.757397	3.183486808	160719.4905	19279.84
Los Angeles (SC)	2022	AirGrSupp - Bobtail	Aggregate	300	Diesel	0.000141727	0.00017149	0.000204087	0.001218602	0.001679434	0.516773133	7.08887E-05	6.52176E-05	4.77357E-06	4.21783E-06	16766.13517	4272.131411	9.550460423	878804.912	105421.1
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	25	Diesel	1.15493E-05	1.39746E-05	0.000016631	0.000140265	0.000133252	0.020192981	6.92531E-06	6.37128E-06	1.86348E-07	1.64812E-07	655.1390258	1360.883532	2.834819205	34022.0883	4081.276
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	50	Diesel	3.32527E-05	4.02358E-05	4.78839E-05	0.000329069	0.000312274	0.04506261	1.24027E-05	1.14104E-05	4.15629E-07	3.67795E-07	1462.006755	2030.088645	4.535710728	75919.82184	9107.31
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	100	Diesel	0.000626345	0.000757877	0.000901937	0.013295549	0.010125751	2.051521154	0.000393494	0.000362015	1.89485E-05	1.67442E-05	66559.3445	44524.61332	95.81688913	3840906.241	460753.5
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	175	Diesel	0.00051136	0.000618746	0.000736358	0.017228724	0.006533609	3.026491052	0.000204591	0.000188224	2.79661E-05	2.47018E-05	98191.16911	43128.77131	90.14725072	5668829.02	680030.4
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	300	Diesel	5.29858E-05	6.41128E-05	7.62995E-05	0.00056107	0.00056252	0.293254574	2.09227E-05	1.92489E-05	2.70969E-06	2.3935E-06	9514.321683	2574.442058	5.66963841	549272.5697	65890.51
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	600	Diesel	2.65549E-05	3.21314E-05	0.000038239	0.000496821	0.000136833	0.27550828	4.74024E-06	4.36102E-06	2.54641E-06	2.24866E-06	8938.562718	1633.060238	3.401783046	516047.0353	61904.79
Los Angeles (SC)	2022	AirGrSupp - Cargo Loader	Aggregate	750	Diesel	3.18388E-05	3.85249E-05	4.58479E-05	0.00055181	0.000151519	0.302826611	5.31081E-06	4.88594E-06	2.79883E-06	2.47163E-06	9824.875899	816.5301191	1.700891523	567216.2561	68043.03
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	25	Diesel	7.08312E-06	8.57058E-06	1.01997E-05	0.000137014	0.000102773	0.019991331	4.54561E-07	4.18196E-07	1.84617E-07	1.63167E-07	648.5967165	1247.616442	1.798586946	31190.41106	3741.589
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	50	Diesel	0.000138283	0.000167322	0.000199127	0.000926988	0.00075127	0.103356449	5.19189E-05	4.77654E-05	9.51433E-07	8.43581E-07	3353.286157	4762.72626	8.093641259	161244.5234	19342.83
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	75	Diesel	0.001667065	0.002017148	0.002400573	0.013834051	0.016107571	1.901640062	0.001308572	0.001203887	1.75316E-05	1.55209E-05	61696.61753	54127.74033	80.48676585	3303726.708	396313.7
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	100	Diesel	0.000395922	0.000479066	0.000570128	0.004585698	0.004501404	0.690624569	0.000300406	0.000276373	6.37329E-06	5.63678E-06	22406.55356	13298.007	19.78445641	1197875.163	143696.6
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	175	Diesel	0.000211541	0.000255965	0.000304619	0.003287064	0.002261285	0.551392122	0.000129895	0.000119503	5.09155E-06	4.50039E-06	17889.31015	6649.0035	9.892228205	956377.2167	114726.6
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	300	Diesel	0.000425129	0.000514406	0.000612186	0.002432285	0.006134158	0.805476677	0.000238717	0.000219619	7.43428E-06	6.57419E-06	26132.80371	6436.116567	9.892228205	1397068.02	167591.7
Los Angeles (SC)	2022	AirGrSupp - Cargo Tractor	Aggregate	600	Diesel	0.000288376	0.000348934	0.000415261	0.001684524	0.003391721	0.835282396	0.000112734	0.000103715	7.71395E-06	6.81746E-06	27099.81744	3742.849327	5.395760839	1448794.594	173796.8
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	25	Diesel	4.38217E-07	5.30243E-07	6.31033E-07	9.96368E-06	8.26794E-06	0.001666795	3.24912E-08	2.98919E-08	1.53972E-08	1.36042E-08	54.0773166	186.9271918	0.475548879	4673.179795	560.5927
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	50	Diesel	0.000149824	0.000181287	0.000215747	0.000755651	0.000668121	0.074732556	6.23386E-05	5.73515E-05	6.86445E-07	6.09957E-07	2424.615468	5443.403602	14.26646637	209532.8155	25135.47
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	75	Diesel	5.80385E-05	7.02266E-05	8.35755E-05	0.000370294	0.000628473	0.044135605	4.65826E-05	0.000042856	4.06314E-07	3.60229E-07	1431.931097	1996.508074	5.70658655	137751.203	16524.58
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	100	Diesel	0.000621653	0.000752201	0.000895181	0.006050616	0.006906988	0.881864766	0.000505421	0.000464988	8.13463E-06	7.19766E-06	28611.13113	31105.31304	82.26995609	2745208.45	329314.1
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	175	Diesel	0.000356098	0.000430879	0.000512781	0.003006007	0.004288231	0.475032547	0.000259347	0.000238599	4.38123E-06	3.87715E-06	15411.90784	11283.17663	29.95957939	1479754.048	177510.7
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	300	Diesel	9.73778E-05	0.000117827	0.000140224	0.000873619	0.00123642	0.398710069	0.000043698	4.02022E-05	3.68335E-06	3.25422E-06	12935.70909	5256.47641	13.7909175	1242783.078	149083.7
Los Angeles (SC)	2022	AirGrSupp - Forklift	Aggregate	600	Diesel	0.000038232	4.62608E-05	5.50542E-05	0.000136353	0.00085645	0.066089061	2.24382E-05	2.06432E-05	6.09879E-07	5.3941E-07	2144.18681	560.7815754	1.426646637	205993.7654	24710.93
Los Angeles (SC)	2022	AirGrSupp - Lift	Aggregate	25	Diesel	2.30859E-06	2.7934E-06	3.32437E-06	4.39792E-05	5.40376E-05	0.00631983	1.94933E-06	1.79338E-06	5.83607E-08	5.15816E-08	205.0399147	425.1818548	1.016206626	10629.54637	1275.116
Los Angeles (SC)	2022	AirGrSupp - Lift	Aggregate	50	Diesel	6.78147E-05	8.20558E-05	9.76532E-05	0.000953627	0.00094406	0.150250199	0.000029328	2.69817E-05	1.3871E-06	1.22632E-06	4874.702231	5639.254075	13.71878946	252714.6677	30315.55
Los Angeles (SC)	2022	AirGrSupp - Lift	Aggregate	75	Diesel	3.87486E-05	4.68858E-05	5.57979E-05	0.000891223	0.000645548	0.140205478	1.66676E-05	1.53342E-05	1.29511E-06	1.14434E-06	4548.812324	3725.935728	9.145859637	262169.3695	31449.73
Los Angeles (SC)	2022	AirGrSupp - Lift	Aggregate	100	Diesel	0.000214619	0.000259689	0.000309051	0.005696599	0.003579036	0.912922054	0.000135222	0.000124405	8.43398E-06	7.45115E-06	29618.75065	19882.84621	47.76171144	1707026.824	204774.2
Los Angeles (SC)	2022	AirGrSupp - Lift	Aggregate	175	Diesel	8.16136E-05	9.87525E-05	0.000117524	0.001273817	0.000856907	0.212382214	5.61578E-05	5.16651E-05	1.96113E-06	1.73344E-06	6890.507048	3188.863911	7.621549697	397119.8524	47638.33
Los Angeles (SC)	2022	AirGrSupp - Lift	Aggregate	300	Diesel	7.63848E-05	9.24256E-05	0.000109994	0.00125004	0.000781247	0.445652201	3.30853E-05	3.04384E-05	4.11798E-06	3.63735E-06	14458.69486	3725.935728	9.145859637	833334.0575	99966.41
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	25	Diesel	5.24632E-06	6.34805E-06	7.5547E-06	0.000103605	7.88473E-05	0.015420781	3.42918E-07	3.15485E-07	1.42415E-07	1.25862E-07	500.3102691	1037.62737	2.127299262	25940.68424	3111.834
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	50	Diesel	0.001895368	0.002293395	0.00272933	0.014699441	0.013329188	1.845388054	0.000798727	0.000734829	1.70047E-05	1.50618E-05	59871.58308	90072.14561	189.3296343	3103077.936	372243.9
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	75	Diesel	0.000399067	0.000482871	0.000574657	0.006370864	0.005447533	0.969531341	0.00029458	0.000271014	8.95183E-06	7.91318E-06	31455.37661	27396.40752	58.5007297	1813199.956	217510.7
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	100	Diesel	0.000459412	0.000555889	0.000661554	0.008808245	0.006706828	1.35495619	0.000327934	0.000301699	1.25135E-05	0.000011059	43960.06135	29287.79375	60.62802896	2529678.142	303459.1
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	175	Diesel	0.000797708	0.000965227	0.0011487	0.019075957	0.009462615	3.363693559	0.000395794	0.00036413	3.10751E-05	0.000027454	109131.3331	39094.89487	81.90102158	6290613.587	754619.4
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	300	Diesel	0.000960916	0.001162708	0.001383719	0.00767753	0.013228935	3.585742616	0.000457492	0.000420893	3.31231E-05	2.92663E-05	116335.4702	29756.24855	62.75532823	6705904.618	804437.5
Los Angeles (SC)	2022	AirGrSupp - Other GSE	Aggregate	600	Diesel	0.000518977	0.000627962	0.000747327	0.005255415	0.006052016	2.236680334	0.000246861	0.000227112	2.06636E-05	1.82555E-05	72566.63017	11648.12846	24.46394151	4182934.749	501783.1
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	50	Diesel	0.00001117	1.35158E-05	1.60849E-05	0.000102688	0.000127437	0.018731867	6.48402E-06	5.9653E-06	1.7285E-07	1.52887E-07	607.7347904	621.5750367	10.96728697	26872.63364	3223.63
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	75	Diesel	2.17636E-06	2.6334E-06	3.13396E-06	0.000116215	6.23387E-05	0.020015771	4.02652E-07	3.7044E-07	1.8499E-07	1.63366E-07	649.3896369	583.4415989	15.58509201	32067.67899	3846.825
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	100	Diesel	2.80508E-06	3.39415E-06	4.03932E-06	0.000012676	3.17972E-05	0.001348772	1.68865E-06	1.55356E-06	1.23859E-08	1.10085E-08	43.75940949	21.60894811	0.57722563	2160.894811	259.22
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	175	Diesel	5.78448E-06	6.99922E-06	8.32965E-06	0.000054829	9.02915E-05	0.008813909	5.45143E-06	5.01532E-06	8.13154E-08	7.19379E-08	285.9575607	127.1114595	0.57722563	13982.26054	1677.306
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	300	Diesel	1.88884E-06	2.2855E-06	2.71993E-06	1.29134E-05	4.32119E-05	0.007350805	9.2303E-07	8.49187E-07	6.79052E-08	5.99963E-08	238.4887817	43.21789621	1.15445126	11776.87672	1412.749
Los Angeles (SC)	2022	AirGrSupp - Passenger Stand	Aggregate	600	Diesel	5.99008E-07	7.248E-07	8.62572E-07	0.000014525	4.03511E-06	0.008294945	1.35114E-07	1.24305E-07	7.66729E-08	6.77022E-08	269.1203684	43.21789621	1.15445126	13289.50309	1594.203
Los Angeles (SC)	2022	CHC - AE Barge and Dredge	Aggregate		Diesel	0.003488586	0.004221189	0.005023563	0.045762618	0.110011891	3.368749467	0.002819768	0.002594187	3.10411E-05	0.000195041	775301.1635	0	0	0	417434.5
Los Angeles (SC)	2022	CHC - AE Charter Fishing	Aggregate		Diesel	0.002968503	0.003591888	0.004274644	0.012415206	0.016609103	0.224839779	0.000896253	0.000824553	1.9897E-06	1.30176E-05	51745.77219	0	0	0	84455.88
Los Angeles (SC)	2022	CHC - AE Commercial Fishing	Aggregate		Diesel	0.002132215	0.00257998	0.00307039	0.009929917	0.019165488	0.171804732	0.001064325	0.000979179	1.52445E-06	9.94703E-06	39540.01633	0	0	0	2208895
Los Angeles (SC)	2022	CHC - AE Crew and Supply	Aggregate		Diesel	0.000703711	0.000851491	0.001013344	0.002625489	0.00330725	0.055169409	0.000123845	0.000113937	4.88957E-07	3.19416E-06	12696.96885	0	0	0	17455982
Los Angeles (SC)	2022	CHC - AE Ferry and Excursion	Aggregate		Diesel	0.009451675	0.011436526	0.013610411	0.05389606	0.064311027	1.106337722	0.00226367	0.002082576	9.94509E-06	6.40539E-05	254618.1993	0	0	0	45481458
Los Angeles (SC)	2022	CHC - AE Others	Aggregate		Diesel	0.000332789	0.000402674	0.000479216	0.001397717	0.001983793	0.024063127	0.000112421	0.000103427	2.12492E-07	1.39319E-06	5538.010647	0	0	0	5175405
Los Angeles (SC)	2022	CHC - AE Pilot Vessels	Aggregate		Diesel	6.16586E-05	7.46069E-05	8.87884E-05	0.000202481	0.000216489	0.003065196	1.39077E-05	0.000012795	2.64895E-08	1.77466E-07	705.4398136	0	0	0	0
Los Angeles (SC)	2022	CHC - AE Tow Boats	Aggregate		Diesel	8.92504E-05	0.000107993	0.000128521	0.000518365	0.000668614	0.010913175	2.57392E-05	2.36801E-05	9.82202E-08	6.31843E-07	2511.61379	0	0	0	115392.1
Los Angeles (SC)	2022	CHC - AE Tug Boats	Aggregate		Diesel	0.002757227	0.003336244	0.003970406	0.016467901	0.020441128	0.346336857	0.000729218	0.000670881	3.11934E-06	0.000020052	79707.72854	0	0	0	208114.1
Los Angeles (SC)	2022	CHC - AE Work Boats	Aggregate		Diesel	0.000283037	0.000342474	0.000407573	0.0017501	0.002387994	0.035315839	0.000084599	7.78311E-05	3.18021E-07	2.04469E-06	8127.76698	0	0	0	622618.8
Los Angeles (SC)	2022	CHC - ME Barge and Dredge	Aggregate		Diesel	0.000573618	0.000694077	0.000826009	0.005316059	0.021179538	0.402727469	0.000587939	0.000540904	3.70621E-06	2.33168E-05	92685.75121	0	0	0	953866.7
Los Angeles (SC)	2022	CHC - ME Charter Fishing	Aggregate		Diesel	0.024640739	0.029815294	0.035482664	0.16230943	0.324409068	3.744526299	0.013234946	0.012176151	3.38808E-05	0.000216798	861784.3578	0	0	0	1388564
Los Angeles (SC)	2022	CHC - ME Commercial Fishing	Aggregate		Diesel	0.00589029	0.007127251	0.008482017	0.02788115	0.104922136	0.669544365	0.004588096	0.004221048	6.01356E-06	3.87648E-05	154092.351	0	0	0	2345017
Los Angeles (SC)	2022	CHC - ME Crew and Supply	Aggregate		Diesel	0.013382343	0.016192635	0.019270574	0.098746991	0.108505243	2.070520163	0.002547947	0.002344112	1.87415E-05	0.000119877	476520.0581	0	0	0	1239434
Los Angeles (SC)	2022	CHC - ME Ferry and Excursion	Aggregate		Diesel	0.151080169	0.182807004	0.217555443	1.377014996	1.468778681	27.99195806	0.03777483	0.034752844	0.000254267	0.001620658	6442211.826	0	0	0	718231.5
Los Angeles (SC)	2022	CHC - ME Others	Aggregate		Diesel	0.005898644	0.007137359	0.008494048	0.033332795	0.087168728	0.81008537	0.003966773	0.003649432	7.31268E-06	4.69017E-05	186437.1738	0	0	0	3978.368
Los Angeles (SC)	2022	CHC - ME Pilot Vessels	Aggregate		Diesel	0.004390668	0.005312709	0.006322562	0.028604818	0.055307221	0.711848283	0.002335398	0.002148566	6.44967E-06	4.12141E-05	163828.3901	0	0	0	63826
Los Angeles (SC)	2022	CHC - ME Tow Boats	Aggregate		Diesel	0.00077445	0.000937085	0.001115208	0.007075581	0.007471438	0.147120706	0.000170065	0.000156459	1.33697E-06	8.51789E-06	33859.10865	0	0	0	28730.77
Los Angeles (SC)	2022	CHC - ME Tug Boats	Aggregate		Diesel	0.04698635	0.056853483	0.067660344	0.42113015	0.501814445	8.604972345	0.014843588	0.013656101	7.81476E-05	0.000498204	1980392.171	0	0	0	1623653
Los Angeles (SC)	2022	CHC - ME Work Boats	Aggregate		Diesel	0.00211061	0.002553838	0.003039278	0.014212617	0.025727141	0.321457304	0.001056984	0.000972425	2.90871E-06	1.86115E-05	73981.82149	0	0	0	4950218
Los Angeles (SC)	2022	CHE - Port Construction Equipment	Aggregate	50	Diesel	0.000370819	0.000448691	0.00053398	0.00346968	0.002421322	0.335418566	3.92024E-05	3.60662E-05	3.08999E-06	2.73764E-06	10882.28598	7644.576899	2.333227295	344005.9605	8555788
Los Angeles (SC)	2022	CHE - Port Construction Equipment	Aggregate	75	Diesel	0.001043846	0.001263054	0.001503139	0.010358385	0.011076438	1.508120786	0.00020311	0.000186861	0.000013912	1.23091E-05	48929.31801	23051.32174	7.201680399	1545777.807	14911990
Los Angeles (SC)	2022	CHE - Port Construction Equipment	Aggregate	100	Diesel	0.000783543	0.000948087	0.001128302	0.012511783	0.00474722	1.87160098	0.00011096	0.000102084	1.72804E-05	1.52758E-05	60722.03258	22767.48538	7.796362261	1909922.705	299878.2
Los Angeles (SC)	2022	CHE - Port Construction Equipment	Aggregate	175	Diesel	0.002449504	0.0029639	0.003527286	0.034215004	0.022763492	5.141839188	0.000353945	0.000325629	4.74654E-05	0.000041967	166821.3097	42524.55695	14.0910154	5890187.549	824056.9
Los Angeles (SC)	2022	CHE - Port Construction Equipment	Aggregate	300	Diesel	0.0042847	0.005184487	0.006169968	0.027138395	0.039835047	10.30873334	0.000520678	0.000479024	9.51808E-05	8.41385E-05	334455.5001	48177.38584	16.44557528	11822780.12	0
Los Angeles (SC)	2022	CHE - Port Construction Equipment	Aggregate	600	Diesel	0.015442664	0.018685623	0.022237436	0.101466805	0.139172097	42.73118511	0.001614689	0.001485514	0.000394608	0.000348766	1386366.241	128085.2583	43.53165845	48334310.39	141002.2
Los Angeles (SC)	2022	CHE - Port Container Handling Equipment	Aggregate	175	Diesel	0.00601651	0.007279977	0.008663775	0.104188942	0.048413947	16.55207988	0.000669552	0.000615988	0.000152852	0.000135096	537014.0027	115377.8041	47.32529207	17555152.85	16741.83
Los Angeles (SC)	2022	CHE - Port Container Handling Equipment	Aggregate	300	Diesel	0.033246689	0.040228494	0.047875233	0.263098246	0.264672333	120.5514915	0.003234426	0.002975672	0.001113561	0.000983925	3911160.377	507534.0894	207.1660895	128409051.6	6849856
Los Angeles (SC)	2022	CHE - Port Container Handling Equipment	Aggregate	600	Diesel	0.033669386	0.040739958	0.048483916	0.265079542	0.220170906	129.7992546	0.003148094	0.002896247	0.001199048	0.001059404	4211193.866	413428.5224	166.2786712	138070242	7505612
Los Angeles (SC)	2022	CHE - Port Forklift	Aggregate	50	Diesel	0.000278076	0.000336471	0.000400429	0.003610223	0.002923702	0.437611914	6.64282E-05	0.000061114	4.0376E-06	3.57173E-06	14197.8366	19337.32035	20.93232621	817358.5349	7885585
Los Angeles (SC)	2022	CHE - Port Forklift	Aggregate	75	Diesel	0.000312917	0.000378629	0.0004506	0.005036938	0.004700921	0.816438315	9.29613E-05	8.55244E-05	7.53899E-06	6.66366E-06	26488.44199	22432.02864	24.14672653	1527116.503	27587988
Los Angeles (SC)	2022	CHE - Port Forklift	Aggregate	100	Diesel	0.000909987	0.001101084	0.001310381	0.026557556	0.003816016	4.467740501	0.000160747	0.000147887	4.12792E-05	3.64651E-05	144950.9202	97348.32602	107.4537511	8390068.182	284765
Los Angeles (SC)	2022	CHE - Port Forklift	Aggregate	175	Diesel	0.002626415	0.003177962	0.003782037	0.063339833	0.022983979	10.68513588	0.00044535	0.000409722	9.87106E-05	8.72106E-05	346667.4662	151972.657	162.3601448	22325757.58	1587277
Los Angeles (SC)	2022	CHE - Port Forklift	Aggregate	300	Diesel	0.001284643	0.001554417	0.001849885	0.011980894	0.00994641	5.892376285	0.000158415	0.000145741	5.44394E-05	4.80928E-05	191171.6593	58088.02534	64.60991418	12340190.14	1929.29
Los Angeles (SC)	2022	CHE - Port Forklift	Aggregate	600	Diesel	0.000304362	0.000368278	0.000438281	0.003472425	0.001825356	1.816061132	3.66326E-05	0.000033702	1.67813E-05	1.48224E-05	58920.10339	11811.68666	13.01791249	3807658.262	6296855
Los Angeles (SC)	2022	CHE - Port Other General Industrial Equipment	Aggregate	50	Diesel	0.001405808	0.001701028	0.002024364	0.012530209	0.009133904	1.25313846	0.00017092	0.000157246	1.15437E-05	1.02279E-05	40656.69725	30314.94341	14.22888573	1383406.773	1651.54
Los Angeles (SC)	2022	CHE - Port Other General Industrial Equipment	Aggregate	75	Diesel	0.000647755	0.000783784	0.000932768	0.006943592	0.007303657	1.04695865	0.00014416	0.000132627	9.66022E-06	8.54514E-06	33967.42038	18154.59492	9.450525614	1147613.134	9125138
Los Angeles (SC)	2022	CHE - Port Other General Industrial Equipment	Aggregate	100	Diesel	0.001248066	0.00151016	0.001797215	0.017676972	0.00755487	2.688310197	0.00018816	0.000173107	2.48173E-05	2.19416E-05	87219.2637	35782.43244	17.71299725	2985695.366	19164899
Los Angeles (SC)	2022	CHE - Port Other General Industrial Equipment	Aggregate	175	Diesel	0.002555664	0.003092353	0.003680156	0.034693691	0.024926005	5.410917902	0.000449988	0.000413989	4.99499E-05	4.41632E-05	175551.2723	49344.0117	26.11529229	6543462.908	24451056
Los Angeles (SC)	2022	CHE - Port Other General Industrial Equipment	Aggregate	300	Diesel	0.001745598	0.002112174	0.002513661	0.011316507	0.016650747	4.544707708	0.000218329	0.000200863	4.19657E-05	3.70933E-05	147448.0365	25268.07011	12.64064231	5742975.631	43672154
Los Angeles (SC)	2022	CHE - Port Other General Industrial Equipment	Aggregate	600	Diesel	0.00328018	0.003969018	0.004723459	0.032520021	0.032970435	6.551628095	0.000515657	0.000474404	6.04746E-05	5.34735E-05	212560.3582	17201.1392	7.786779801	7993660.473	340858
Los Angeles (SC)	2022	CHE - Port RTG Crane	Aggregate	300	Diesel	0.000815247	0.000986449	0.001173956	0.00601625	0.006578085	2.284637198	9.44137E-05	8.68606E-05	2.10981E-05	1.86469E-05	74122.53781	31254.8942	16.82223682	7162033.039	1207114
Los Angeles (SC)	2022	CHE - Port RTG Crane	Aggregate	600	Diesel	0.009749757	0.011797206	0.01403965	0.069706926	0.072182816	33.33524695	0.00088371	0.000813013	0.000307908	0.000272078	1081525.375	210315.3259	109.8211631	104620221.8	1130.466
Los Angeles (SC)	2022	CHE - Port RTG Crane	Aggregate	750	Diesel	0.010531685	0.012743339	0.015165627	0.075471867	0.074974945	36.78768747	0.000926395	0.000852283	0.000339804	0.000300256	1193536.006	175478.0435	91.06402098	115327853.5	37767.16
Los Angeles (SC)	2022	CHE - Port RTG Crane	Aggregate	9999	Diesel	0.006476974	0.007837138	0.009326842	0.039295319	0.107517293	19.12941762	0.001415512	0.001302271	0.000176667	0.000156132	620632.8872	62511.86144	33.47189248	59980131.06	17677.93
Los Angeles (SC)	2022	CHE - Port Yard Tractor	Aggregate	175	Diesel	0.021081385	0.025508476	0.030357195	1.809466587	0.126069821	290.3162668	0.004805627	0.004421177	0.002683485	0.002369522	9418991.55	2694911.587	1123.644107	466787726.3	976090.9
Los Angeles (SC)	2022	CHE - Port Yard Tractor	Aggregate	300	Diesel	0.019008162	0.022999876	0.027371754	0.575363257	0.102921971	269.9944376	0.003848957	0.003541041	0.002495662	0.002203658	8759672.184	1971502.401	771.4201265	433619627.3	10901102
Los Angeles (SC)	2022	CHE - Port Yard Tractor	Aggregate	600	Diesel	0.000154562	0.000187019	0.000222569	0.004406838	0.000944973	2.170951403	3.10154E-05	2.85341E-05	2.00669E-05	0.000017719	70434.1274	10908.65418	4.960901135	3490769.337	23067486
Los Angeles (SC)	2022	CHE - Rail Container Handling Equipment	Aggregate	175	Diesel	0.001730736	0.00209419	0.002492259	0.022566849	0.016634162	3.463819122	0.000254472	0.000234114	3.19728E-05	2.82712E-05	112379.7967	25095.25445	8.397095169	3697553.138	987990.6
Los Angeles (SC)	2022	CHE - Rail Container Handling Equipment	Aggregate	300	Diesel	0.003948885	0.004778151	0.005686394	0.024277005	0.035946837	10.0060689	0.000417774	0.000384352	9.23926E-05	8.16682E-05	324635.8858	49159.39408	12.11665937	10637731.31	782970.4
Los Angeles (SC)	2022	CHE - Rail Container Handling Equipment	Aggregate	600	Diesel	0.001039691	0.001258027	0.001497156	0.006808936	0.009775073	2.405772483	0.000144159	0.000132627	2.22114E-05	1.96356E-05	78052.63873	7326.830613	3.353379623	2538113.477	0
Los Angeles (SC)	2022	CHE - Rail Forklift	Aggregate	75	Diesel	4.48485E-05	5.42667E-05	6.45819E-05	0.000556029	0.000585017	0.08676963	2.20006E-05	2.02405E-05	8.00883E-07	7.08202E-07	2815.145101	2617.385548	2.045439495	163150.3659	2294341
Los Angeles (SC)	2022	CHE - Rail Forklift	Aggregate	100	Diesel	0.000127676	0.000154488	0.000183854	0.002842725	0.00045455	0.439540818	1.89458E-05	1.74302E-05	4.05994E-06	3.58747E-06	14260.41776	9899.466153	4.117015167	814686.6412	1460111
Los Angeles (SC)	2022	CHE - Rail Forklift	Aggregate	175	Diesel	0.000145072	0.000175537	0.000208904	0.003351825	0.000731461	0.513888619	1.37001E-05	1.26041E-05	4.7468E-06	4.19429E-06	16672.55028	6814.377974	2.399324792	1058811.398	1769523
Los Angeles (SC)	2022	CHE - Rail Forklift	Aggregate	300	Diesel	0.000035331	4.27506E-05	5.08767E-05	0.000260752	0.000339347	0.117856272	6.44123E-06	5.92593E-06	1.08858E-06	9.61927E-07	3823.716954	1026.492691	0.802185483	246358.2458	2768698
Los Angeles (SC)	2022	CHE - Rail Other General Industrial Equipment	Aggregate	50	Diesel	0.000609747	0.000737794	0.000878035	0.004732348	0.003404759	0.430369356	9.29841E-05	8.55454E-05	3.96069E-06	3.51262E-06	13962.8598	10200.13553	2.825273242	476006.3248	2336547
Los Angeles (SC)	2022	CHE - Rail Other General Industrial Equipment	Aggregate	175	Diesel	1.26812E-05	1.53442E-05	1.82609E-05	0.000209885	0.000168658	0.037275867	2.34103E-06	2.15375E-06	3.44253E-07	3.04241E-07	1209.37446	398.5615484	0.871229557	45834.57806	7823541
Los Angeles (SC)	2022	CHE - Rail Other General Industrial Equipment	Aggregate	300	Diesel	0.000278567	0.000337066	0.000401137	0.001792445	0.002888728	0.700252503	3.81012E-05	3.50531E-05	6.46582E-06	5.71537E-06	22718.92128	4136.126328	3.036857812	949736.2826	347793.2
Los Angeles (SC)	2022	CHE - Rail RTG Crane	Aggregate	300	Diesel	0.008198711	0.00992044	0.011806144	0.052290145	0.071984837	21.74620342	0.000754412	0.000694059	0.000200808	0.00017749	705531.6207	255052.6155	53.48522278	68192687.75	430707.4
Los Angeles (SC)	2022	CHE - Rail RTG Crane	Aggregate	600	Diesel	0.001192138	0.001442487	0.001716679	0.007602242	0.008949724	3.58491499	9.56609E-05	0.000088008	3.31086E-05	2.92596E-05	116308.6188	30904.51268	6.195282921	11285210.25	10291.17
Los Angeles (SC)	2022	CHE - Rail Yard Tractor	Aggregate	175	Diesel	0.012993378	0.015721987	0.018710464	0.883301036	0.057296166	142.6695358	0.002341823	0.002154478	0.001318661	0.00116445	4628755.966	1448241.899	337.3412772	228889858.6	242795
Los Angeles (SC)	2022	CHE - Rail Yard Tractor	Aggregate	300	Diesel	0.005596046	0.006771216	0.008058306	0.137639423	0.025958488	66.54016278	0.000997444	0.000917648	0.000615029	0.000543092	2158822.301	534964.4391	141.3856824	106992887.8	80481.93
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197973.6
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	50	Diesel	0.000196022	0.000237187	0.000282272	0.001627854	0.001609514	0.222638847	0.000090365	8.31358E-05	2.05253E-06	1.81715E-06	7223.272208	6315.673619	17.74363412	244436.504	6653819
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	75	Diesel	0.000123336	0.000149237	0.000177604	0.002219738	0.002258391	0.347060127	0.000111674	0.00010274	3.20504E-06	2.83266E-06	11259.9836	6175.496005	13.63458201	440850.7128	13598834
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	100	Diesel	0.000297414	0.000359871	0.000428276	0.006568299	0.004233884	1.047721075	0.000172916	0.000159082	9.67778E-06	8.55136E-06	33992.15644	15471.81083	40.53019582	1318901.289	57904075
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	175	Diesel	0.000349675	0.000423106	0.000503531	0.008998108	0.003976934	1.624931972	0.00017728	0.000163098	1.50128E-05	1.32625E-05	52719.1283	13539.40801	42.77149698	2020587.964	19744228
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	300	Diesel	0.000448809	0.000543059	0.000646285	0.004744923	0.005607594	2.331809563	0.000183144	0.000168493	2.15453E-05	1.90319E-05	75652.99323	14079.84926	43.51859736	2941412.683	34710929
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	600	Diesel	0.000632367	0.000765164	0.000910609	0.007349399	0.007107437	3.927390053	0.000237615	0.000218605	3.62917E-05	3.20548E-05	127419.845	12172.40957	36.04759352	4967478.324	0
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	750	Diesel	0.000267558	0.000323745	0.000385283	0.003851466	0.002574903	2.125753438	0.000100855	9.27866E-05	1.96456E-05	1.73501E-05	68967.7292	4109.103011	7.284228743	2625509.382	1291327
Los Angeles (SC)	2022	ConstMin - Bore/Drill Rigs	Aggregate	9999	Diesel	0.000317127	0.000383724	0.000456663	0.002280865	0.008877977	1.216641467	0.000203875	0.000187565	1.12389E-05	9.93006E-06	39472.5925	817.3827113	1.120650576	1521438.969	190540.9
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	25	Diesel	7.08352E-06	8.57106E-06	1.02003E-05	3.99273E-05	3.51483E-05	0.004301273	2.69991E-06	2.48392E-06	3.95549E-08	3.51064E-08	139.5500519	337.097097	0.703722276	8427.427424	4333903
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	50	Diesel	0.000207001	0.000250471	0.000298081	0.000901202	0.000718327	0.06968766	7.43359E-05	6.83891E-05	6.38087E-07	5.68781E-07	2260.93939	3279.327721	7.506370945	135203.4155	2466729
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	75	Diesel	5.76636E-05	0.000069773	8.30356E-05	0.000240983	0.000525889	0.028110314	4.89905E-05	4.50712E-05	2.58164E-07	2.29433E-07	912.0081716	874.6303057	2.34574092	60860.76395	3218863
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	100	Diesel	0.001417369	0.001715017	0.002041011	0.011920111	0.015371371	1.574798108	0.001020914	0.000939241	1.45173E-05	1.28533E-05	51092.59028	39145.3334	88.19985861	3439404.155	12438692
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	175	Diesel	0.003441949	0.004164758	0.004956406	0.031683497	0.041920406	4.822207973	0.002253042	0.002072799	4.44804E-05	3.93582E-05	156451.227	71689.13731	156.9300676	10486109.09	2468722
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	300	Diesel	0.004286367	0.005186504	0.006172368	0.028449244	0.058899935	8.314988947	0.002439991	0.002244792	7.67476E-05	6.78658E-05	269770.6591	82158.17267	174.2885504	18123833.12	796139.7
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	600	Diesel	0.005363382	0.006489692	0.00772327	0.052176721	0.071535786	14.49763986	0.002868491	0.002639012	0.000133877	0.000118328	470359.9588	86061.3176	173.5848281	31588256.59	0
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	750	Diesel	0.000153078	0.000185224	0.000220432	0.001445517	0.001893581	0.290933667	9.28395E-05	8.54124E-05	2.68523E-06	2.37456E-06	9439.022408	1001.912596	2.34574092	635235.7645	158692.5
Los Angeles (SC)	2022	ConstMin - Cranes	Aggregate	9999	Diesel	0.000849395	0.001027768	0.001223128	0.008640121	0.012022559	0.800893914	0.000552906	0.000508673	7.37918E-06	6.53679E-06	25984.121	1860.465139	3.753185473	1745610.155	272063.6
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1438812
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	50	Diesel	0.000613396	0.00074221	0.000883291	0.002752633	0.002103075	0.225703123	0.000210644	0.000193793	2.06834E-06	1.84216E-06	7322.68925	7104.759396	20.81908657	298686.7145	2325253
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	75	Diesel	7.41707E-05	8.97465E-05	0.000106806	0.000290937	0.000710742	0.024291804	5.21103E-05	4.79414E-05	2.22365E-07	1.98266E-07	788.120844	507.0411405	2.498290388	35464.43606	1819290
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	100	Diesel	0.009193795	0.011124491	0.013239064	0.073149314	0.094621298	9.943753475	0.007572577	0.006966771	9.16591E-05	8.11596E-05	322614.1304	166072.3834	355.1736168	14510137.26	330905.5
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	175	Diesel	0.006651019	0.008047733	0.009577467	0.067343417	0.079080976	10.87586806	0.004419638	0.004066067	0.000100353	8.87674E-05	352855.5615	106568.0614	235.0474873	15899231.96	68256.97
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	300	Diesel	0.006327835	0.00765668	0.009112082	0.042392181	0.090950768	11.40936301	0.003659337	0.00336659	0.000105295	9.31217E-05	370164.2176	81293.53505	182.1670075	16704133.78	0
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	600	Diesel	0.013786774	0.016681997	0.019852955	0.116957075	0.179929863	39.89652134	0.006968171	0.006410718	0.00036845	0.00032563	1294398.697	151368.1903	318.7402153	58439984.18	232465.1
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	750	Diesel	0.000276719	0.00033483	0.000398476	0.002072298	0.004220215	0.409753961	0.00015094	0.000138865	3.78008E-06	3.34436E-06	13294.01599	967.4687428	2.290099522	603221.3987	39468.08
Los Angeles (SC)	2022	ConstMin - Crawler Tractors	Aggregate	9999	Diesel	0.001280378	0.001549257	0.001843744	0.006923682	0.026203389	2.300915307	0.000709721	0.000652943	2.12347E-05	1.87798E-05	74650.66314	3457.9635	6.24572597	3362347.916	1067350
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	25	Diesel	1.54555E-05	1.87011E-05	2.22559E-05	5.25162E-05	3.56713E-05	0.002763324	4.97151E-06	4.57379E-06	2.50846E-08	2.25539E-08	89.65299221	163.4736177	0.625821509	4086.840443	1160635
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	50	Diesel	0.006051332	0.007322111	0.008713918	0.065585014	0.056800531	9.024731192	0.00244725	0.00225147	8.32566E-05	7.36586E-05	292797.4646	372468.2039	509.0014941	13338708.67	777294.9
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	75	Diesel	6.49364E-06	7.8573E-06	9.35084E-06	2.54715E-05	6.22254E-05	0.002126746	4.56225E-06	4.19727E-06	1.9468E-08	1.73582E-08	68.99993976	66.0090264	0.20860717	3498.478399	833987.6
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	100	Diesel	0.004586893	0.005550141	0.006605126	0.077635795	0.057721984	11.71311	0.003029579	0.002787213	0.000108156	9.56008E-05	380018.9542	237525.2602	366.7314043	19329895.46	166041.3
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	175	Diesel	0.007461894	0.009028891	0.010745127	0.144035677	0.079184516	24.7223962	0.003846393	0.003538681	0.000228347	0.000201781	802090.9179	278005.7126	469.9919533	40597248.65	75397.61
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	300	Diesel	0.007504264	0.009080159	0.01080614	0.066607956	0.085548794	31.56303753	0.002724372	0.002506423	0.000291591	0.000257613	1024027.992	236932.3704	406.5753737	51794981.51	0
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	600	Diesel	0.011207087	0.013560575	0.016138205	0.112192145	0.109047588	56.13381493	0.003666757	0.003373416	0.000518649	0.000458157	1821199.805	272666.6071	424.098376	92511275.95	3603538
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	750	Diesel	0.000166152	0.000201043	0.000239258	0.001484764	0.00236713	0.447028085	7.90795E-05	7.27531E-05	4.12801E-06	3.64858E-06	14503.33389	1125.966245	2.294678867	722043.9056	44205.38
Los Angeles (SC)	2022	ConstMin - Excavators	Aggregate	9999	Diesel	0.000271316	0.000328292	0.000390695	0.002918796	0.008093656	1.558501433	0.000112261	0.00010328	0.000014401	1.27203E-05	50563.86261	2123.965532	3.129107545	2557045.035	6225162
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	25	Diesel	4.85637E-06	5.87621E-06	6.99317E-06	2.28773E-05	1.79968E-05	0.001735045	2.16879E-06	1.99529E-06	1.58957E-08	1.41612E-08	56.29162018	95.7872322	0.419259876	2394.680805	6484707
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	50	Diesel	0.000183552	0.000222097	0.000264314	0.000781233	0.000559162	0.057960955	6.21912E-05	5.72159E-05	5.30371E-07	4.7307E-07	1880.479361	2142.520916	6.079268199	80002.65377	1073008
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	75	Diesel	5.87194E-05	7.10505E-05	8.45559E-05	0.000239054	0.000554616	0.025002447	4.65621E-05	4.28371E-05	2.29398E-07	2.04067E-07	811.1768655	533.7743515	1.677039503	37447.37985	625600.9
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	100	Diesel	0.001842463	0.00222938	0.002653146	0.011260865	0.017530448	1.327939155	0.001393441	0.001281966	1.22222E-05	1.08385E-05	43083.52342	23068.91807	61.63120175	2067665.787	1759.284
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	175	Diesel	0.010203803	0.012346602	0.014693477	0.098609522	0.115761534	15.09959957	0.006425898	0.005911826	0.000139297	0.000123241	489889.8789	155476.0881	329.5382624	23091941.44	169641.2
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	300	Diesel	0.015217274	0.018412901	0.021912874	0.078501391	0.216951226	31.84480083	0.007179672	0.006605298	0.000293964	0.000259913	1033169.492	225712.7945	297.255252	48864148.23	5195.817
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	600	Diesel	0.000728184	0.000881102	0.001048585	0.002938165	0.011536041	1.368686893	0.00035448	0.000326122	1.26323E-05	0.000011171	44405.5389	5944.076694	7.756307703	2092872.909	14883852
Los Angeles (SC)	2022	ConstMin - Graders	Aggregate	9999	Diesel	0.000794364	0.00096118	0.001143884	0.004035816	0.013265929	1.080835773	0.000406756	0.000374216	9.96903E-06	8.82164E-06	35066.52632	916.6838122	1.257779627	1658576.041	3275970
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240385
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	50	Diesel	0.004086232	0.004944341	0.005884174	0.032703276	0.027258061	3.742910583	0.001648908	0.001516995	3.44825E-05	3.05491E-05	121434.6118	128751.3736	195.3332512	4860131.181	89956.1
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	75	Diesel	0.001093923	0.001323647	0.00157525	0.015016557	0.013056712	2.151028564	0.000713125	0.000656075	1.98545E-05	1.75564E-05	69787.75283	43903.56474	72.04071435	3092971.604	15393.73
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	100	Diesel	0.001462256	0.001769329	0.002105648	0.018150043	0.017198543	2.606708069	0.001237246	0.001138266	2.40564E-05	2.12756E-05	84571.77254	47525.00573	69.77657762	3748404.028	0
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	175	Diesel	0.001491847	0.001805135	0.002148259	0.024576904	0.017429427	4.072360507	0.00084087	0.0007736	3.76062E-05	3.32381E-05	132123.2517	37095.19925	54.13345107	5864968.756	151948.1
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	300	Diesel	0.000993606	0.001202263	0.001430793	0.007692412	0.011628402	3.43114806	0.00041075	0.00037789	3.16929E-05	2.80046E-05	111319.8201	23142.94067	35.60869595	4949537.9	168823.8
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	600	Diesel	0.00241699	0.002924558	0.003480465	0.022996966	0.02272532	11.47474887	0.000788655	0.000725563	0.000106017	9.36554E-05	372285.5898	46328.67462	67.30661027	16572705.87	534993.5
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	750	Diesel	0.000185132	0.00022401	0.000266591	0.001025128	0.001662636	0.503238593	8.38759E-05	7.71658E-05	4.64714E-06	4.10737E-06	16327.02192	1156.359355	1.6466449	736734.681	758414.5
Los Angeles (SC)	2022	ConstMin - Off-Highway Tractors	Aggregate	9999	Diesel	0.000253775	0.000307068	0.000365437	0.001538381	0.004326011	0.6331482	0.000115615	0.000106366	5.84616E-06	5.16767E-06	20541.79607	557.488416	1.029153062	912372.9387	817579.7
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	25	Diesel	0.000048279	5.84176E-05	6.95218E-05	0.000212245	0.000139167	0.014746079	1.49766E-05	1.37784E-05	1.34886E-07	1.20356E-07	478.4202804	871.9965583	0.611817466	21799.91396	8474862
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	50	Diesel	0.000358003	0.000433183	0.000515524	0.003192514	0.00255869	0.346247732	0.000153753	0.000141453	3.19049E-06	2.82603E-06	11233.62635	17830.15137	11.01271439	514315.7853	244030
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	75	Diesel	0.000053605	0.000064862	7.71912E-05	0.000798122	0.000453516	0.103707529	1.84136E-05	1.69405E-05	9.57219E-07	8.46447E-07	3364.676557	2391.642177	1.631513243	170485.8883	0
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	100	Diesel	0.000131627	0.000159269	0.000189544	0.001864432	0.001433956	0.255875863	9.14028E-05	8.40906E-05	2.36175E-06	2.08842E-06	8301.610574	4801.921736	3.670904797	419369.9284	518257.8
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	175	Diesel	0.003309222	0.004004159	0.00476528	0.05365975	0.03017881	8.564558195	0.001477562	0.001359357	7.90843E-05	6.99028E-05	277867.6585	89312.20319	63.62901648	14094869.21	14202065
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	300	Diesel	0.005952604	0.00720265	0.008571749	0.043433845	0.054651821	17.46174399	0.002159785	0.001987002	0.000161264	0.00014252	566527.0532	136617.6088	107.2719957	28806581.59	33444554
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	600	Diesel	0.022791962	0.027578274	0.032820425	0.174504945	0.210663128	74.68614399	0.007624768	0.007014787	0.000689827	0.000609578	2423109.69	326191.7107	239.6285076	122658936.4	48505961
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	750	Diesel	0.010482675	0.012684037	0.015095052	0.084513671	0.108155934	25.42087961	0.004215757	0.003878496	0.000234714	0.000207482	824752.4427	63078.92175	51.59660631	41824449.13	62634616
Los Angeles (SC)	2022	ConstMin - Off-Highway Trucks	Aggregate	9999	Diesel	0.014661533	0.017740455	0.021112607	0.105113585	0.299055765	44.90302469	0.006216522	0.0057192	0.000414711	0.000366492	1456829.184	57992.77992	40.99177023	73528600.02	6110949
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4318843
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	50	Diesel	0.002598069	0.003143664	0.00374122	0.017663467	0.016206759	2.023378688	0.001188858	0.001093749	1.86292E-05	1.65145E-05	65646.29317	71728.72153	150.8008412	2735434.255	996.4913
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	75	Diesel	0.000450479	0.00054508	0.00064869	0.00232977	0.004519182	0.263886538	0.000354551	0.000326187	2.42625E-06	2.15381E-06	8561.5081	5510.174727	18.26658911	403625.2964	8066.155
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	100	Diesel	0.003903695	0.00472347	0.00562132	0.041633765	0.044571391	6.073989703	0.003099571	0.002851605	5.60399E-05	4.95751E-05	197063.9066	111800.7172	247.6137634	9180560.609	77759.04
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	175	Diesel	0.001609363	0.001947329	0.002317482	0.020725202	0.019730743	3.446705907	0.001031675	0.000949141	3.18182E-05	2.81316E-05	111824.5773	34321.85498	83.01149938	5225302.611	348912.4
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	300	Diesel	0.001668043	0.002018332	0.002401981	0.011948731	0.02316644	4.527348858	0.000893524	0.000822042	4.18075E-05	3.69516E-05	146884.8477	31134.13335	76.51671215	6818557.491	4704208
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	600	Diesel	0.00488573	0.005911733	0.007035451	0.045731102	0.062454201	17.43738949	0.002302425	0.002118231	0.000161071	0.000142322	565736.8982	69147.75439	154.8600832	26349039.79	5591586

Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	750	Diesel	0.001015204	0.001228397	0.001461894	0.007165559	0.014170845	3.450227089	0.000465925	0.000428651	3.18686E-05	2.81603E-05	111938.8182	8515.429494	17.0488165	5229524.054	69008972
Los Angeles (SC)	2022	ConstMin - Other Construction Equipment	Aggregate	9999	Diesel	0.000223929	0.000270954	0.000322457	0.002091115	0.00609026	1.116038756	0.00011077	0.000101908	1.03116E-05	9.10896E-06	36208.64835	1836.724909	3.856279922	1686472.836	1057227
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1597575
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	50	Diesel	0.000378917	0.00045849	0.000545641	0.00214817	0.001856918	0.247551904	0.000138473	0.000127395	2.27737E-06	2.02049E-06	8031.548898	8668.167471	24.42914185	336160.2622	0
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	75	Diesel	0.000622417	0.000753124	0.00089628	0.002990726	0.005626763	0.37814614	0.000542394	0.000499002	3.47748E-06	3.08638E-06	12268.53505	7984.230128	23.61483712	576315.7259	2769268
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	100	Diesel	0.000759852	0.000919421	0.001094187	0.012987887	0.010832364	2.010132441	0.000570175	0.000524561	1.85619E-05	1.64064E-05	65216.53329	37551.43914	94.45934847	3047853.064	16170022
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	175	Diesel	0.001117683	0.001352397	0.001609464	0.018548492	0.013657541	3.268247191	0.000656171	0.000603678	0.000030183	0.000026675	106034.6808	31195.54266	80.81974427	4925612.911	237583.3
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	300	Diesel	0.000597423	0.000722882	0.000860289	0.004898021	0.00962572	2.552279161	0.000294372	0.000270823	2.35792E-05	2.08314E-05	82805.88655	17492.61032	38.88305077	3853825.276	111064.8
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	600	Diesel	8.01828E-05	9.70212E-05	0.000115463	0.000855339	0.001118953	0.464167	3.24118E-05	2.98188E-05	4.28905E-06	3.78847E-06	15059.38712	1860.421199	4.275099823	700961.36	102973.3
Los Angeles (SC)	2022	ConstMin - Pavers	Aggregate	750	Diesel	7.84223E-06	9.4891E-06	1.12928E-05	0.00016966	0.000046967	0.095744426	1.59475E-06	1.46717E-06	8.84969E-07	7.81453E-07	3106.322473	192.7861467	0.407152364	144589.6101	29726.76
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40353.58
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	50	Diesel	0.000249959	0.00030245	0.000359941	0.00224628	0.002030162	0.308214888	0.000099633	9.16624E-05	2.8421E-06	2.51561E-06	9999.692597	14172.41813	30.08082237	492433.7537	0
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	75	Diesel	3.88684E-05	4.70308E-05	5.59705E-05	0.000350185	0.000496744	0.047712457	3.64781E-05	3.35599E-05	4.39959E-07	3.89423E-07	1547.978119	1221.491977	3.048731997	83605.73102	31238.15
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	100	Diesel	0.000521241	0.000630702	0.000750587	0.008346188	0.0065923	1.281560471	0.000349593	0.000321625	0.000011833	1.04599E-05	41578.81811	25401.2751	55.08042475	2260981.063	20994.07
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	175	Diesel	0.0005257	0.000636097	0.000757008	0.008165876	0.006032893	1.389236005	0.000319327	0.000293781	1.28284E-05	1.13388E-05	45072.23222	16932.09379	36.78803277	2458587.284	215611
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	300	Diesel	0.000288009	0.00034849	0.000414732	0.002045978	0.003965814	0.932376785	0.000151587	0.00013946	8.61165E-06	7.60993E-06	30249.93797	7133.921782	15.24365999	1646553.583	177507.8
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	600	Diesel	0.000263083	0.000318331	0.00037884	0.002076388	0.003531358	0.998574863	0.000113667	0.000104574	9.22443E-06	8.15023E-06	32397.66168	4444.828439	9.552693591	1766646.44	359745.4
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	750	Diesel	3.84043E-05	4.64692E-05	5.53022E-05	0.000368993	0.000439824	0.199316063	1.10689E-05	1.01834E-05	1.84162E-06	1.62679E-06	6466.590168	549.7990881	1.016243999	351727.4656	1263199
Los Angeles (SC)	2022	ConstMin - Paving Equipment	Aggregate	9999	Diesel	1.42814E-05	1.72805E-05	2.05652E-05	0.000168959	0.000401006	0.09045265	6.60477E-06	6.07638E-06	8.35851E-07	7.38262E-07	2934.636621	189.4577939	0.4064976	159715.7064	489053.4
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208650
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	50	Diesel	0.005251978	0.006354894	0.007562849	0.037967311	0.035613463	5.076095084	0.002154584	0.001982217	4.67735E-05	4.14304E-05	164688.3147	213769.2814	617.3209126	7633420.685	0
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	75	Diesel	0.000171766	0.000207837	0.000247343	0.000673935	0.001545858	0.056320054	0.00011177	0.000102828	5.15554E-07	4.59677E-07	1827.242138	1349.139761	5.86329225	93640.82461	1369861
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	100	Diesel	0.003685373	0.004459302	0.005306938	0.051355207	0.046708483	7.886851706	0.002672474	0.002458676	7.28073E-05	6.43714E-05	255880.2178	151062.27	455.2427626	13186839.02	452263.3
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	175	Diesel	0.002111749	0.002555216	0.003040918	0.045304411	0.026655331	8.209337482	0.001223719	0.001125821	0.000075836	6.70035E-05	266342.9136	95537.27497	266.3609908	13736635.93	1901269
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	300	Diesel	0.00047016	0.000568893	0.00067703	0.003978942	0.006633543	1.359624359	0.0002494	0.000229448	1.25563E-05	1.10971E-05	44111.51497	10510.37284	34.13273703	2272965.688	586849.5
Los Angeles (SC)	2022	ConstMin - Rollers	Aggregate	600	Diesel	0.000188404	0.000227968	0.000271301	0.002093487	0.002604257	0.796892286	8.81237E-05	8.10738E-05	7.36201E-06	6.50413E-06	25854.2926	3794.335973	12.35479438	1325218.228	352429.8
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	25	Diesel	1.4549E-06	1.76043E-06	2.09506E-06	1.80899E-05	2.25606E-05	0.002656903	1.26239E-06	1.1614E-06	2.45207E-08	2.16853E-08	86.20029709	149.0685375	0.483312357	3726.713436	47595.22
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	50	Diesel	0.000285586	0.00034556	0.000411245	0.00187685	0.001756805	0.255911508	0.000103317	9.50514E-05	2.35746E-06	2.08872E-06	8302.767049	7522.99219	27.54880435	359353.161	61152.65
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	75	Diesel	1.95077E-05	2.36043E-05	2.80911E-05	7.91096E-05	0.000194546	0.007054825	1.32688E-05	1.22073E-05	6.46401E-08	5.75805E-08	228.8860252	165.9077611	0.724968535	11006.36504	0
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	100	Diesel	0.004105183	0.004967271	0.005911463	0.123023751	0.073803042	20.21781689	0.001982413	0.00182382	0.000186801	0.000165015	655944.8031	327439.5325	1158.983032	31528651.48	5529039
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	175	Diesel	0.001754102	0.002122463	0.002525906	0.025299841	0.018841658	4.446841364	0.001257763	0.001157142	4.10606E-05	3.62945E-05	144272.8707	55355.22112	202.0245652	6939528.1	898422.2
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	300	Diesel	5.95166E-05	7.20151E-05	8.57039E-05	0.000610253	0.000968119	0.32637305	2.23024E-05	2.05182E-05	3.0157E-06	2.66381E-06	10588.81417	2421.811628	9.666247139	509210.6015	97035938
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	600	Diesel	1.31423E-05	1.59021E-05	1.89248E-05	0.000217552	0.000136458	0.121340464	2.06561E-06	1.90036E-06	1.12146E-06	9.90365E-07	3936.757727	494.6867021	1.933249428	190555.1396	17082835
Los Angeles (SC)	2022	ConstMin - Rough Terrain Forklifts	Aggregate	750	Diesel	3.56865E-06	4.31806E-06	5.13885E-06	3.85554E-05	0.000052965	0.020879206	3.75109E-07	3.451E-07	1.92932E-07	1.70413E-07	677.4028394	52.17398811	0.241656178	32608.74257	10730679
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14089563
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	50	Diesel	0.000401035	0.000485252	0.00057749	0.002406836	0.001752722	0.225492627	0.000142668	0.000131254	2.07276E-06	1.84044E-06	7315.859953	7759.963377	8.16832542	321873.5949	272975.2
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	75	Diesel	0.000314657	0.000380734	0.000453105	0.001924711	0.003073194	0.226693888	0.000231025	0.000212543	2.08646E-06	1.85025E-06	7354.833538	5225.805176	6.972960725	357621.6496	4775163
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	100	Diesel	0.000773575	0.000936026	0.001113948	0.005698101	0.00783445	0.719223932	0.000598863	0.000550954	6.62637E-06	5.87021E-06	23334.42838	13407.9386	15.53974104	1133283.434	0
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	175	Diesel	0.001020246	0.001234498	0.001469155	0.00729852	0.011232779	1.012764399	0.000717185	0.000659811	9.3329E-06	8.26605E-06	32858.02555	11272.28161	14.34437635	1606559.102	1422534
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	300	Diesel	0.000912669	0.001104329	0.001314243	0.006257247	0.012197902	1.095020344	0.000558306	0.000513642	1.00966E-05	8.93741E-06	35526.72911	7828.466442	11.15673716	1731889.403	94523.22
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	600	Diesel	0.008336147	0.010086738	0.012004051	0.080091838	0.104238589	11.39370317	0.004676219	0.004302121	0.00010509	9.29939E-05	369656.1513	48639.45136	66.94042296	17952407.05	1043791
Los Angeles (SC)	2022	ConstMin - Rubber Tired Dozers	Aggregate	750	Diesel	0.000127699	0.000154515	0.000183886	0.000671663	0.002231365	0.325752806	6.25799E-05	5.75735E-05	3.00792E-06	2.65875E-06	10568.69103	794.7265775	0.796909797	516931.8596	244659.6
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	525618.5
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	50	Diesel	0.001172034	0.001418161	0.001687729	0.007465492	0.005713232	0.706322175	0.000426344	0.000392236	6.49514E-06	5.76491E-06	22915.8451	26410.76017	30.73299419	1097832.076	796467.6
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	100	Diesel	0.011975983	0.01449094	0.017245416	0.126468707	0.12408256	17.19022487	0.008775721	0.008073663	0.000158573	0.000140304	557717.9142	349997.2498	381.8782184	30084414.97	256978.1
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	175	Diesel	0.018868236	0.022830566	0.02717026	0.255541968	0.194928785	40.76256342	0.010514321	0.009673176	0.000376304	0.000332699	1322496.478	472179.4544	500.8647432	70846021.62	20682.14
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	300	Diesel	0.020881559	0.025266686	0.030069445	0.138593117	0.260198806	59.0913531	0.008773985	0.008072066	0.000545702	0.000482296	1917153.874	492351.0526	461.8255344	102750791.9	0
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	600	Diesel	0.029293775	0.035445468	0.042183036	0.202778304	0.330167999	76.14720295	0.012396026	0.011404344	0.00070314	0.000621503	2470512.139	402293.1073	413.2341787	132679701	1721481
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	750	Diesel	0.002058503	0.002490789	0.002964245	0.020687108	0.018209605	7.406419496	0.000643127	0.000591677	6.84143E-05	6.04502E-05	240293.1238	20033.30335	19.93491515	12944899.71	2360086
Los Angeles (SC)	2022	ConstMin - Rubber Tired Loaders	Aggregate	9999	Diesel	0.001683373	0.002036882	0.002424058	0.011406649	0.03772436	5.285917661	0.000791987	0.000728628	4.88204E-05	4.31429E-05	171495.7771	9549.461749	8.098559281	9148659.138	979397.1
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	25	Diesel	3.35776E-07	4.06289E-07	4.83518E-07	9.46012E-06	8.6797E-06	0.001805065	3.02594E-08	2.78386E-08	1.66786E-08	1.47327E-08	58.56335263	84.43520914	0.205317872	2110.880228	204176.7
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	50	Diesel	6.90852E-05	8.35931E-05	9.94827E-05	0.000235552	0.000167153	0.014366935	2.32879E-05	2.14248E-05	1.30757E-07	1.17261E-07	466.1193715	441.1739677	1.231907234	17086.63728	12201.27
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	75	Diesel	0.000201125	0.000243361	0.00028962	0.001052437	0.001868814	0.126784245	0.000161524	0.000148602	1.16615E-06	1.0348E-06	4113.375203	2429.388601	5.543582555	164717.9651	8664.672
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	100	Diesel	0.000489684	0.000592517	0.000705145	0.004297319	0.006183267	0.571408703	0.000459604	0.000422835	5.26827E-06	4.66376E-06	18538.72607	8195.609758	13.55097958	739105.4717	0
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	175	Diesel	0.004752809	0.005750899	0.006844045	0.049460799	0.056457164	7.708796189	0.003012465	0.002771468	7.11291E-05	6.29182E-05	250103.4026	59699.21099	133.6619349	9964983.941	1774754
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	300	Diesel	0.004828333	0.005842283	0.0069528	0.030392477	0.062718799	9.08573723	0.002734498	0.002515738	8.38573E-05	7.41566E-05	294776.7383	53032.34761	130.5821669	11844728.11	181119.5
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	600	Diesel	0.043043156	0.052082218	0.061982144	0.385982277	0.56425861	112.5905865	0.021527856	0.019805628	0.001039665	0.000918949	3652877.582	346083.9734	720.6657322	146182580	23647390
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	750	Diesel	0.001856932	0.002246887	0.002673981	0.020851788	0.030850143	1.729922236	0.001249135	0.001149204	1.59383E-05	1.41194E-05	56125.42179	3598.816247	9.855257876	2239537.284	7524684
Los Angeles (SC)	2022	ConstMin - Scrapers	Aggregate	9999	Diesel	0.002038274	0.002466311	0.002935114	0.024766922	0.033816299	2.601806701	0.001258804	0.0011581	2.39938E-05	2.12356E-05	84412.75304	2118.854665	5.338264683	3384163.182	1637128
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	409903.7
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	50	Diesel	0.001964731	0.002377324	0.002829212	0.023815481	0.022360163	3.841963227	0.000670874	0.000617204	3.54619E-05	3.13576E-05	124648.2657	134624.1737	427.5717884	5866175.909	32769.83
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	75	Diesel	0.005141487	0.0062212	0.007403742	0.124440782	0.08282225	20.12380499	0.003028213	0.002785956	0.0001859	0.000164248	652894.6906	485436.1672	1359.2416	34253162.31	238.6312
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	100	Diesel	9.87994E-05	0.000119547	0.000142271	0.001913264	0.001760321	0.293196613	0.000115084	0.000105878	2.70778E-06	2.39303E-06	9512.441212	6662.956663	20.5624509	503275.7036	2241972
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	175	Diesel	3.37605E-05	4.08502E-05	4.86151E-05	0.000749158	0.00041185	0.137863926	1.86722E-05	1.71784E-05	1.27361E-06	1.12523E-06	4472.84324	1545.447553	5.723568808	235269.9321	1659199
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	300	Diesel	2.08075E-05	2.51771E-05	2.99628E-05	0.000238213	0.000301344	0.128117664	8.6376E-06	7.94659E-06	1.18389E-06	1.04568E-06	4156.636498	1063.554631	3.603728509	218129.6789	349982.4
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	600	Diesel	9.25182E-06	1.11947E-05	1.33226E-05	6.95448E-05	0.000145611	0.037039216	6.30572E-06	5.80126E-06	3.42168E-07	3.02309E-07	1201.696559	133.1864861	0.42396806	62970.57062	939765.5
Los Angeles (SC)	2022	ConstMin - Skid Steer Loaders	Aggregate	9999	Diesel	2.48762E-05	3.01001E-05	3.58217E-05	0.000166072	0.000443376	0.050137686	1.47668E-05	1.35854E-05	4.62801E-07	4.09217E-07	1626.662009	85.48150834	0.42396806	85481.50834	947262.4
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2983431
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	50	Diesel	2.10071E-05	2.54186E-05	3.02502E-05	0.000224126	0.000232382	0.035609365	9.17541E-06	8.44138E-06	3.28596E-07	2.90639E-07	1155.306637	1829.111308	7.50022009	66172.17674	491318.9
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	75	Diesel	1.89794E-05	2.29651E-05	2.73304E-05	0.000154106	0.000266133	0.021471746	1.63365E-05	1.50296E-05	1.97948E-07	1.7525E-07	696.6271679	669.6050043	2.692386699	44472.00969	170178.9
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	100	Diesel	7.08845E-05	8.57703E-05	0.000102074	0.001370747	0.001032911	0.220300148	4.87837E-05	0.000044881	2.03466E-06	1.79806E-06	7147.395687	5124.631212	18.46208022	456731.5992	2202.923
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	175	Diesel	9.16787E-05	0.000110931	0.000132017	0.00106705	0.001151839	0.180838856	6.25359E-05	0.000057533	1.66919E-06	1.47598E-06	5867.117516	2723.89516	10.96186013	376017.0783	88121.49
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	300	Diesel	0.000119386	0.000144457	0.000171916	0.000927716	0.002021333	0.366695124	6.66676E-05	6.13342E-05	3.3867E-06	2.99292E-06	11897.01945	3360.766849	13.65424683	762053.1361	21589.59
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	600	Diesel	0.000227151	0.000274853	0.000327098	0.002587445	0.003049808	1.285901835	0.000114661	0.000105488	0.000011882	1.04954E-05	41719.66887	6493.498923	22.6929736	2675850.602	1102113
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	750	Diesel	0.000100114	0.000121138	0.000144164	0.000963011	0.001421859	0.497914464	0.000057185	5.26102E-05	4.60046E-06	4.06391E-06	16154.28643	1621.507394	5.577086733	1035967.915	769594.3
Los Angeles (SC)	2022	ConstMin - Surfacing Equipment	Aggregate	9999	Diesel	4.82117E-05	5.83361E-05	6.94248E-05	0.000448466	0.001322734	0.212482284	2.57003E-05	2.36443E-05	1.96306E-06	1.73425E-06	6893.753691	511.2109072	1.923133356	441985.8764	1224080
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1681464
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	50	Diesel	0.003321878	0.004019473	0.004783505	0.021733319	0.017903145	2.342755867	0.001333836	0.001227129	2.15603E-05	1.91213E-05	76008.13404	81424.77905	115.1754155	2901794.532	72205.23
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	75	Diesel	0.000553405	0.00066962	0.000796904	0.005027161	0.005711326	0.694548262	0.000419339	0.000385792	6.40484E-06	5.66881E-06	22533.85346	13100.09715	22.01583164	958035.1114	116725.4
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	100	Diesel	0.001548018	0.001873102	0.002229147	0.020179609	0.017994885	2.926258624	0.001165089	0.001071882	2.70083E-05	2.38837E-05	94939.23834	50904.45886	71.75530314	4027483.213	2.34E+08
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	175	Diesel	0.000453257	0.000548441	0.000652691	0.005498332	0.005124007	0.90317387	0.0002468	0.000227056	8.33669E-06	7.37158E-06	29302.48154	7777.716952	10.80406553	1243130.664	0
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	300	Diesel	0.000149335	0.000180695	0.000215042	0.001138287	0.002036164	0.542397008	6.48499E-05	5.96619E-05	5.01025E-06	4.42697E-06	17597.47359	3560.051999	4.892407032	746556.5035	0
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	600	Diesel	5.97711E-05	7.23231E-05	8.60704E-05	0.000972374	0.000818992	0.073250086	4.13571E-05	3.80486E-05	6.7544E-07	5.97857E-07	2376.518375	305.5198994	0.407700586	100821.5668	68182
Los Angeles (SC)	2022	ConstMin - Sweepers/Scrubbers	Aggregate	9999	Diesel	7.40167E-06	8.95602E-06	1.06584E-05	0.00016611	0.0004021	0.094115262	3.13685E-06	2.8859E-06	8.6992E-07	7.68156E-07	3053.466033	152.7599497	0.203850293	129540.4374	74292.1
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3903168
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	50	Diesel	0.007496186	0.009070385	0.010794507	0.062756144	0.053140114	7.587609821	0.002870849	0.002641181	6.99263E-05	6.19291E-05	246171.6444	309366.2746	598.3998931	11712232.61	284335
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	75	Diesel	0.002783917	0.00336854	0.004008841	0.011236012	0.02642512	1.117380133	0.002139321	0.001968175	1.02472E-05	9.11991E-06	36252.16783	26526.97668	115.7184462	1903139.086	59768.75
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	100	Diesel	0.046623557	0.056414504	0.067137922	0.801049837	0.581766159	121.1840651	0.030570364	0.028124735	0.001119008	0.000989088	3931683.53	2471598.783	3947.354277	205552457	54804.75
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	175	Diesel	0.006677429	0.00807969	0.009615498	0.124442051	0.070829302	21.14546895	0.00360337	0.0033151	0.0001953	0.000172586	686041.4525	252326.3914	454.5337167	36186785.74	51158.4
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	300	Diesel	0.003998663	0.004838382	0.005758075	0.031208696	0.050661431	13.33045847	0.00178204	0.001639477	0.000123127	0.000108801	432492.0443	108790.7579	193.0725788	22730932.26	20677.25
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	600	Diesel	0.00449052	0.005433529	0.006466349	0.040545793	0.049291019	17.40092968	0.001810581	0.001665735	0.000160746	0.000142024	564553.9997	88040.81909	162.4228281	29846098.95	17359.4
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	750	Diesel	0.000129609	0.000156827	0.000186638	0.001555584	0.001416765	0.329309343	5.40369E-05	0.000049714	3.04074E-06	2.68778E-06	10684.07897	890.5522455	1.876515344	578246.7992	4956.7
Los Angeles (SC)	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregate	9999	Diesel	0.001522261	0.001841936	0.002192055	0.011469025	0.035756856	5.942070974	0.000677931	0.000623696	5.48917E-05	4.84984E-05	192783.9487	5465.499433	8.757071606	10115287.78	59323.45
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38255.65
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	50	Diesel	0.002724265	0.003296361	0.003922942	0.020619395	0.01948036	2.690240281	0.001256775	0.001156233	2.47909E-05	2.19574E-05	87281.88315	75591.19967	196.2209796	3013372.126	3606.2
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	75	Diesel	0.000219478	0.000265569	0.000316049	0.001334272	0.002215592	0.160605911	0.000152052	0.000139887	1.4783E-06	1.31084E-06	5210.681916	2838.815499	10.47998414	200229.733	722.7
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	100	Diesel	0.001382588	0.001672932	0.001990927	0.012431135	0.015768233	1.773469665	0.001124857	0.001034869	1.63551E-05	1.44748E-05	57538.27014	26419.19637	80.04924055	2211075.294	7610.25
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	175	Diesel	0.000250442	0.000303034	0.000360636	0.002617004	0.003163969	0.414564691	0.00016119	0.000148294	3.82534E-06	3.38362E-06	13450.09483	3685.747893	12.48678961	518265.5051	83650.7
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	300	Diesel	0.000445645	0.00053923	0.000641729	0.002718796	0.006157602	0.895215961	0.000258143	0.000237492	8.26335E-06	7.30663E-06	29044.29595	4950.670079	16.05444379	1113424.321	2752.1
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	600	Diesel	0.000416937	0.000504494	0.000600389	0.004694606	0.005171985	1.358338032	0.000215116	0.000197907	0.000012546	1.10866E-05	44069.78149	4437.671029	12.04083284	1687167.493	34481.55
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	750	Diesel	3.54822E-05	4.29335E-05	5.10944E-05	0.000772622	0.00021393	0.436327207	7.2579E-06	6.67727E-06	0.000004033	3.56124E-06	14156.1557	841.0739144	1.783827087	544360.0015	6453.2
Los Angeles (SC)	2022	ConstMin - Trenchers	Aggregate	9999	Diesel	6.42003E-05	7.76824E-05	9.24484E-05	0.000932903	0.000888119	0.035106372	4.12665E-05	3.79651E-05	3.2265E-07	2.86533E-07	1138.987576	50.9433019	0.222978386	43811.23964	0
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133966
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	50	Diesel	0.001981361	0.002397447	0.002853161	0.046090092	0.043046193	8.697745958	0.00035945	0.000330694	8.03555E-05	7.09898E-05	282188.7887	345146.8993	1140.475579	15921247.27	7697.85
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	75	Diesel	0.001790132	0.002166059	0.00257779	0.064672843	0.033631293	10.72527064	0.000611901	0.000562949	9.91067E-05	8.75382E-05	347969.5943	301851.1379	1000.001711	21827435.19	11563.2
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	100	Diesel	0.000696803	0.000843131	0.001003396	0.026601395	0.013114499	4.451267283	0.000255648	0.000235196	4.11333E-05	3.63306E-05	144416.4648	115340.597	381.5937638	9058029.385	40208.4
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	175	Diesel	0.000132749	0.000160627	0.000191159	0.00500941	0.001261945	0.927528975	4.77022E-05	0.000043886	8.57148E-06	7.57037E-06	30092.65612	14474.13824	47.90105074	1888344.449	17374
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	300	Diesel	6.45654E-06	7.81241E-06	9.29742E-06	0.000100428	7.13973E-05	0.055427076	9.53792E-07	8.77488E-07	5.12257E-07	4.52388E-07	1798.270451	490.6279125	1.61464216	112844.4199	196895.6
Los Angeles (SC)	2022	Industrial - Aerial Lifts	Aggregate	600	Diesel	3.68525E-06	4.45915E-06	5.30675E-06	0.000070745	1.95031E-05	0.039361257	6.73109E-07	6.19261E-07	3.63804E-07	3.21261E-07	1277.032639	163.5426375	0.538214053	80135.89237	221770.4
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1165208
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	50	Diesel	0.007072406	0.008557611	0.010184264	0.052825848	0.042945846	5.853932407	0.002686643	0.002471712	5.39103E-05	0.000047779	189924.39	387133.5497	528.698956	16413945.53	366788.5
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	75	Diesel	0.001335738	0.001616243	0.001923462	0.005381934	0.012668069	0.531694584	0.001025107	0.000943098	4.87571E-06	4.33962E-06	17250.24522	22865.342	47.62660017	1675097.985	328500
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	100	Diesel	0.038599056	0.046704858	0.055582641	0.485819151	0.436140326	69.97602956	0.028701942	0.026405787	0.000645805	0.000571135	2270295.214	2652818.911	3480.237342	218704718.3	0
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	175	Diesel	0.009547328	0.011552267	0.013748152	0.135037787	0.105065666	22.28568953	0.005618811	0.005169306	0.000205756	0.000181893	723034.6536	492545.7212	657.159694	69592622.25	474.5
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	300	Diesel	0.001787588	0.002162982	0.002574127	0.012011425	0.021116983	4.858098331	0.000823564	0.000757679	4.48619E-05	3.96511E-05	157615.6501	72099.94875	96.1270829	15141103.71	27521
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	600	Diesel	0.000442833	0.000535828	0.00063768	0.002858334	0.004663961	1.2222203	0.000173883	0.000159972	1.12867E-05	9.9756E-06	39653.59158	10731.38732	14.85600372	3791026.453	4584035
Los Angeles (SC)	2022	Industrial - Forklifts	Aggregate	9999	Diesel	1.40943E-05	1.70541E-05	2.02958E-05	0.000185285	0.000436543	0.097072113	3.88877E-06	3.57767E-06	8.97057E-07	7.9229E-07	3149.397788	344.4026628	0.436941286	303074.3433	865050
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	25	Diesel	7.64147E-06	9.24618E-06	1.10037E-05	2.54078E-05	1.74953E-05	0.001336921	2.40526E-06	2.21284E-06	1.21312E-08	1.09118E-08	43.37491489	88.27996866	0.386400649	2206.999216	1202091
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	50	Diesel	0.012399034	0.015002831	0.017854608	0.108548541	0.08975375	12.58801175	0.005082334	0.004675747	0.00011601	0.000102742	408404.1779	590234.5736	704.7947839	20735047.14	91761
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	75	Diesel	0.003157883	0.003821038	0.004547351	0.056435046	0.040362353	8.36359373	0.00200896	0.001848243	7.72308E-05	6.82625E-05	271347.5877	214806.3509	253.4788258	15345233.71	736570
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	100	Diesel	0.002123023	0.002568858	0.003057153	0.014056686	0.02025942	1.772201152	0.001747799	0.001607975	1.63212E-05	1.44645E-05	57497.11466	40751.79913	53.70969022	3236839.643	20805
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	175	Diesel	0.001930288	0.002335648	0.002779614	0.029306356	0.020463365	4.739678487	0.001085052	0.000998247	4.37628E-05	3.86846E-05	153773.6487	58538.44722	70.32491813	8691494.295	331639
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	300	Diesel	0.001626376	0.001967915	0.002341982	0.011828442	0.021164719	4.782856557	0.000684668	0.000629895	4.41711E-05	0.000039037	155174.5136	40795.05632	50.61848503	8760829.861	80482.5
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	600	Diesel	0.003707975	0.00448665	0.005339484	0.031326329	0.032666627	15.03958094	0.001134736	0.001043957	0.000138937	0.000122751	487942.6403	72635.87541	85.00814279	27592493.03	5218588
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	750	Diesel	0.000641062	0.000775686	0.00092313	0.008521364	0.005865188	2.482200425	0.00030352	0.000279238	2.29299E-05	2.02594E-05	80532.25914	7188.637848	8.500814279	4544000.397	106204.8
Los Angeles (SC)	2022	Industrial - Other General Industrial Equipment	Aggregate	9999	Diesel	0.000186704	0.000225912	0.000268854	0.001644168	0.005275452	0.857880298	8.72246E-05	8.02466E-05	7.92593E-06	7.0019E-06	27832.98148	1352.44912	1.545602596	1573912.663	4029.6
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	25	Diesel	1.48843E-05	0.00001801	2.14334E-05	0.000124839	0.000088232	0.014272552	3.48022E-06	3.20181E-06	1.3151E-07	1.16491E-07	463.0572237	814.9561915	1.322764935	20373.90479	921362.9
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	50	Diesel	0.00090159	0.001090924	0.00129829	0.005889069	0.004856956	0.574471	0.000383564	0.000352879	5.28422E-06	4.68876E-06	18638.07894	22745.23591	29.98267186	814998.4168	75573.25
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	75	Diesel	0.000100226	0.000121273	0.000144325	0.000965312	0.001079677	0.125294937	0.000085169	7.83555E-05	1.15541E-06	1.02264E-06	4065.056259	2801.97855	4.409216449	199672.9554	5770.65
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	100	Diesel	0.002062305	0.002495389	0.002969719	0.042508173	0.028113874	6.42890084	0.001050125	0.000966115	5.93765E-05	5.24718E-05	208578.6076	109559.7286	140.6540047	10192980.02	226300
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	175	Diesel	0.001968145	0.002381455	0.002834128	0.027921885	0.019355203	4.491430911	0.001252352	0.001152164	4.14665E-05	3.66585E-05	145719.5295	51497.37388	70.54746319	7117651.987	529250
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	300	Diesel	0.002825595	0.00341897	0.004068857	0.016136637	0.032800779	7.136050702	0.001305132	0.001200721	6.58916E-05	5.82435E-05	231521.3061	48191.71412	63.93363851	11320994.66	9015.5
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	600	Diesel	0.003069363	0.003713929	0.004419883	0.025533766	0.0349252	9.81151125	0.001279373	0.001177023	9.06202E-05	8.00802E-05	318323.677	42789.2295	55.99704891	15551152.71	39347
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	750	Diesel	0.000202839	0.000245436	0.000292089	0.000880223	0.002094492	0.420779495	0.000106008	9.75271E-05	3.88423E-06	3.43435E-06	13651.72732	1071.329925	1.322764935	667795.6535	30462.9
Los Angeles (SC)	2022	Industrial - Other Material Handling Equipment	Aggregate	9999	Diesel	8.92052E-05	0.000107938	0.000128455	0.001277715	0.003026754	0.680222681	2.62833E-05	2.41807E-05	6.28632E-06	5.55189E-06	22069.07577	1071.329925	1.322764935	1079543.455	585277.5
Los Angeles (SC)	2022	Locomotive - Line haul	Aggregate	9999	Diesel	0.148021	0.179	0.213	0.947	4.05	0	0.097	0.089	0.004	0.003	0	0	0	244949985	693594.9
Los Angeles (SC)	2022	Locomotive - Passenger	Aggregate	9999	Diesel	0.018611866	0.000013903	1.65457E-05	0.258443187	0.412596853	0	0.007566543	0.00696122	0.000719966	0.000815928	0	0	0	0	306.6
Los Angeles (SC)	2022	Locomotive - Short line	Aggregate	9999	Diesel	0.008791429	9.66115E-07	1.14976E-06	0.064449169	0.297339217	0	0.004875219	0.004485202	0.00023747	0.00021183	0	0	0	0	945204
Los Angeles (SC)	2022	Locomotive - Switcher	Aggregate	9999	Diesel	0.142246263	0.000412148	0.00049049	0.382133622	2.206336209	0	0.046603141	0.042874889	0.001272341	0.001144368	0	0	0	0	20403.5
Los Angeles (SC)	2022	Ocean Going Vessels	Aggregate		Diesel	0.697480668	0.889913476	1.063310924	1.532417268	14.11838103	1476.407098	0.406334063	0.373827338	1.588749686	0.009587793	46588503.77	0	0	844337811.9	410625
Los Angeles (SC)	2022	OFF - Agricultural - 2-Wheel Tractors	Aggregate	25	Gasoline	0.000947237	0.000871269	0.001042377	0.034292359	0.000695522	0.061348899	0.000389792	0.00029451	1.8016E-06	1.58045E-06	4511.4	10898.9	42.92	76299.6	13870
Los Angeles (SC)	2022	OFF - Agricultural - Agricultural Mowers	Aggregate	25	Gasoline	0.000753051	0.000692656	0.000828686	0.031841627	0.000562223	0.051785601	0.000390707	0.000295201	1.37025E-06	1.39121E-06	3971.2	6653.95	36.93	83125.1	447453.5
Los Angeles (SC)	2022	OFF - Agricultural - Agricultural Tractors	Aggregate	25	Diesel	0.004355401	0.005183287	0.006271777	0.024737815	0.039529307	5.253637098	0.001496496	0.001376776	7.11458E-05	4.39775E-05	174813.1	241943.9	454.12	4372937.25	108770
Los Angeles (SC)	2022	OFF - Agricultural - Agricultural Tractors	Aggregate	100	Gasoline	0.000630541	0.000579972	0.000693872	0.025435767	0.00157579	0.462343231	3.22357E-05	2.43558E-05	4.46688E-06	6.69006E-06	19096.8	3890.9	7.06	319053.8	103295
Los Angeles (SC)	2022	OFF - Agricultural - Agricultural Tractors	Aggregate	175	Gasoline	8.73326E-05	8.03285E-05	9.61042E-05	0.003523391	0.000361821	0.09393803	6.73436E-06	5.08818E-06	9.33176E-07	1.32088E-06	3770.45	536.55	0.97	67068.75	123286
Los Angeles (SC)	2022	OFF - Agricultural - Balers	Aggregate	50	Gasoline	0.000113334	0.000104245	0.000124717	0.006082395	0.000208668	0.079919014	5.50955E-06	4.16277E-06	9.7167E-07	1.19685E-06	3416.4	1762.95	25.77	61703.25	0
Los Angeles (SC)	2022	OFF - Agricultural - Balers	Aggregate	100	Gasoline	5.13794E-05	4.72588E-05	5.65399E-05	0.001608934	0.000182179	0.073900513	5.15252E-06	3.89302E-06	7.13982E-07	1.01783E-06	2905.4	901.55	13.18	57699.2	3344787
Los Angeles (SC)	2022	OFF - Agricultural - Combines	Aggregate	100	Gasoline	1.58917E-05	1.46172E-05	1.74878E-05	0.000736026	4.01162E-05	0.039467918	2.7518E-06	2.07914E-06	3.81315E-07	5.37046E-07	1533	219	1.78	22557	506547
Los Angeles (SC)	2022	OFF - Agricultural - Combines	Aggregate	175	Gasoline	1.01487E-05	9.33477E-06	0.000011168	0.001089355	3.81137E-05	0.033954399	2.43417E-06	1.83915E-06	3.37301E-07	4.74391E-07	1354.15	120.45	0.97	19753.8	2463.75
Los Angeles (SC)	2022	OFF - Agricultural - Combines	Aggregate	300	Gasoline	1.84386E-06	1.69598E-06	2.02905E-06	0.0002379	2.16177E-05	0.007205992	5.3159E-07	4.01645E-07	7.36621E-08	1.03573E-07	295.65	29.2	0.18	5664.8	9338.16
Los Angeles (SC)	2022	OFF - Agricultural - Hydro Power Units	Aggregate	25	Gasoline	0.000740692	0.000681289	0.000815087	0.028689774	0.00054957	0.04824487	0.000342567	0.000258829	1.32916E-06	1.2774E-06	3646.35	6770.75	17.46	66528.55	89242.5
Los Angeles (SC)	2022	OFF - Agricultural - Hydro Power Units	Aggregate	25	Diesel	2.95132E-05	3.51232E-05	0.000042499	0.000156273	0.000268212	0.035413064	1.00874E-05	9.2804E-06	4.64435E-07	2.96587E-07	1178.95	2562.3	3.16	42934.95	71726.15
Los Angeles (SC)	2022	OFF - Agricultural - Hydro Power Units	Aggregate	50	Gasoline	6.68421E-06	6.14814E-06	7.35557E-06	0.00053205	1.03324E-05	0.005486434	3.7823E-07	2.85774E-07	6.6705E-08	8.4393E-08	240.9	105.85	0.25	4022.3	37960
Los Angeles (SC)	2022	OFF - Agricultural - Hydro Power Units	Aggregate	100	Gasoline	5.05554E-07	4.65008E-07	5.56331E-07	2.48696E-05	1.26957E-06	0.001177752	8.21157E-08	6.2043E-08	1.13787E-08	1.53442E-08	43.8	10.95	0.03	722.7	39631.7
Los Angeles (SC)	2022	OFF - Agricultural - Other Agricultural Equipment	Aggregate	25	Gasoline	0.000097279	8.94772E-05	0.00010705	0.00343626	6.70604E-05	0.006140706	3.66045E-05	2.76567E-05	1.77243E-07	1.57278E-07	448.95	978.2	6.79	8489.5	22133.6
Los Angeles (SC)	2022	OFF - Agricultural - Other Agricultural Equipment	Aggregate	25	Diesel	6.83562E-05	8.13495E-05	9.84329E-05	0.000364167	0.000622093	0.081956897	2.40477E-05	2.21238E-05	1.07846E-06	6.85914E-07	2726.55	4839.9	10.85	93666.3	31003.1
Los Angeles (SC)	2022	OFF - Agricultural - Other Agricultural Equipment	Aggregate	50	Gasoline	4.92764E-06	4.53244E-06	5.42256E-06	0.000314759	8.33816E-06	0.003753568	2.58768E-07	1.95513E-07	4.56366E-08	5.49833E-08	156.95	94.9	0.8	2752.1	3270.4
Los Angeles (SC)	2022	OFF - Agricultural - Other Agricultural Equipment	Aggregate	100	Gasoline	2.91089E-05	2.67743E-05	3.20325E-05	0.001131899	8.77198E-05	0.04966803	3.46297E-06	2.61647E-06	4.79862E-07	6.82816E-07	1949.1	569.4	4.61	38149.8	40471.2
Los Angeles (SC)	2022	OFF - Agricultural - Other Agricultural Equipment	Aggregate	175	Gasoline	4.55482E-06	4.18953E-06	5.0123E-06	0.000362787	0.000022054	0.011178626	8.01388E-07	6.05493E-07	1.11048E-07	1.53442E-07	438	47.45	0.52	6453.2	13797
Los Angeles (SC)	2022	OFF - Agricultural - Other Agricultural Equipment	Aggregate	300	Gasoline	2.43629E-06	2.2409E-06	2.68099E-06	0.000243738	2.53885E-05	0.007298471	5.38412E-07	4.068E-07	7.46074E-08	1.02294E-07	292	10.95	0.14	2693.7	1034074
Los Angeles (SC)	2022	OFF - Agricultural - Sprayers	Aggregate	25	Gasoline	0.001617753	0.001488009	0.001780238	0.056849331	0.001013934	0.097394491	0.000592089	0.000447356	2.68245E-06	2.55992E-06	7307.3	16001.6	163.02	150168.3	106277
Los Angeles (SC)	2022	OFF - Agricultural - Sprayers	Aggregate	25	Diesel	6.87731E-06	8.18456E-06	9.90332E-06	3.22981E-05	5.93134E-05	0.007518909	2.61483E-06	2.40565E-06	9.54007E-08	6.33575E-08	251.85	452.6	4.2	8599.4	676914.4
Los Angeles (SC)	2022	OFF - Agricultural - Sprayers	Aggregate	50	Gasoline	2.19681E-05	2.02062E-05	2.41745E-05	0.001194151	3.99677E-05	0.015172777	0.000001046	7.90309E-07	1.84473E-07	2.27605E-07	649.7	372.3	4.84	12285.9	2628
Los Angeles (SC)	2022	OFF - Agricultural - Sprayers	Aggregate	100	Gasoline	3.70866E-05	3.41123E-05	4.08115E-05	0.00117724	0.000129656	0.052100937	3.6326E-06	2.74463E-06	5.03368E-07	7.18619E-07	2051.3	660.65	8.17	44924.2	74989.25
Los Angeles (SC)	2022	OFF - Agricultural - Sprayers	Aggregate	175	Gasoline	1.08046E-05	9.93812E-06	1.18899E-05	0.000755156	6.59815E-05	0.02352583	1.68655E-06	1.27428E-06	2.33704E-07	3.299E-07	941.7	149.65	1.86	20951	41314.35
Los Angeles (SC)	2022	OFF - Agricultural - Swathers	Aggregate	100	Gasoline	0.000197087	0.000181281	0.000216883	0.006356285	0.000677403	0.269048364	1.87587E-05	1.41732E-05	2.59938E-06	3.70818E-06	10585	2511.2	26.45	220985.6	80701.5
Los Angeles (SC)	2022	OFF - Agricultural - Swathers	Aggregate	175	Gasoline	0.000139442	0.000128259	0.000153448	0.00948842	0.000834479	0.294048217	2.10801E-05	1.59272E-05	2.92106E-06	4.10073E-06	11705.55	1934.5	20.24	249550.5	16070.95
Los Angeles (SC)	2022	OFF - Agricultural - Tillers	Aggregate	25	Gasoline	0.012621692	0.011609433	0.013889403	0.718656009	0.009310306	1.201737351	0.00055175	0.000416878	3.42648E-05	3.15873E-05	90165.95	186449.3	2622.03	1305145.1	65364.2
Los Angeles (SC)	2022	OFF - AirGrSupp - A/C Tug Narrow Body	Aggregate	175	Gasoline	0.003317824	0.003051734	0.003651063	0.192035942	0.021602078	4.883351896	0.000350084	0.000264508	0.000048511	6.88877E-05	196640.1	20644.4	28.38	2683772	4106.25
Los Angeles (SC)	2022	OFF - AirGrSupp - A/C Tug Wide Body	Aggregate	600	Gasoline	0.002186379	0.002011032	0.002405977	0.233236977	0.020852381	6.663808253	0.000491592	0.000371425	6.81197E-05	9.32747E-05	266252.9	7540.9	14.59	3770450	9176.1
Los Angeles (SC)	2022	OFF - AirGrSupp - Air Conditioner	Aggregate	175	Gasoline	5.53253E-08	5.08882E-08	6.08821E-08	5.51709E-06	6.26725E-07	0.000175828	1.2605E-08	9.52378E-09	1.74667E-09	0	0	0	0	0	29784
Los Angeles (SC)	2022	OFF - AirGrSupp - Air Conditioner	Aggregate	175	Nat Gas	0	0	2.68251E-08	0.00002331	2.83957E-06	0.000944899	0	0	0	0	62.05	0	0.18	0	139995.8
Los Angeles (SC)	2022	OFF - AirGrSupp - Air Start Unit	Aggregate	175	Gasoline	5.68907E-06	5.23281E-06	6.26047E-06	0.000531616	6.03123E-05	0.01663206	1.19234E-06	9.0088E-07	1.65222E-07	2.31441E-07	660.65	62.05	0.82	8066.5	15651.2
Los Angeles (SC)	2022	OFF - AirGrSupp - Baggage Tug	Aggregate	100	Gasoline	0.029563883	0.02719286	0.03253325	2.18178489	0.175223342	54.0187264	0.003766316	0.002845661	0.000521896	0.000762813	2177451.3	419899.65	478.45	41989965	6745.2
Los Angeles (SC)	2022	OFF - AirGrSupp - Baggage Tug	Aggregate	100	Nat Gas	0	0	0.001069997	0.392972259	0.045516043	8.873121829	0	0	0	0	493483.65	79175.8	95.28	7917580	73288.35
Los Angeles (SC)	2022	OFF - AirGrSupp - Belt Loader	Aggregate	100	Gasoline	0.007145726	0.006572639	0.007863436	0.535842745	0.041994075	12.80313004	0.000892665	0.000674458	0.000123696	0.000181192	517212.3	182452.55	224.85	10947153	223390.9
Los Angeles (SC)	2022	OFF - AirGrSupp - Belt Loader	Aggregate	100	Nat Gas	0	0	7.69118E-05	0.03335804	0.003749023	0.850220536	0	0	0	0	46887.9	13899.2	25.19	833952	139809.6
Los Angeles (SC)	2022	OFF - AirGrSupp - Bobtail	Aggregate	100	Gasoline	0.003592218	0.003304122	0.003953017	0.265102327	0.02129085	6.56364539	0.000457633	0.000345767	0.000063414	9.26878E-05	264577.55	51019.7	58.13	5101970	18133.2
Los Angeles (SC)	2022	OFF - AirGrSupp - Bobtail	Aggregate	100	Nat Gas	0	0	8.43733E-06	0.00579504	0.000525229	0.161816964	0	0	0	0	8869.5	1445.4	1.64	144540	1785616
Los Angeles (SC)	2022	OFF - AirGrSupp - Cargo Loader	Aggregate	100	Gasoline	0.002619013	0.002408969	0.002882064	0.196323963	0.015399647	4.698396874	0.000327583	0.000247508	4.53931E-05	6.64837E-05	189778.1	57385.3	79.67	4016971	25243.4
Los Angeles (SC)	2022	OFF - AirGrSupp - Cargo Loader	Aggregate	100	Nat Gas	0	0	0.000142108	0.047831249	0.005637881	0.997250792	0	0	0	0	55801.2	13990.45	13.53	979331.5	53344.75
Los Angeles (SC)	2022	OFF - AirGrSupp - Cargo Tractor	Aggregate	100	Gasoline	0.075455578	0.069404041	0.083034261	6.79247357	0.35747699	79.82762304	0.005565773	0.004205251	0.000659065	0.001203326	3434898.2	665274.55	492.33	63201082.25	24571.8
Los Angeles (SC)	2022	OFF - AirGrSupp - Cargo Tractor	Aggregate	175	Nat Gas	0	0	5.03219E-05	0.037357433	0.00447986	1.424235413	0	0	0	0	76872.65	8322	53.4	1294903.2	757243.6
Los Angeles (SC)	2022	OFF - AirGrSupp - Cart	Aggregate	25	Gasoline	5.08963E-05	4.68144E-05	5.60082E-05	0.003223056	4.00933E-05	0.005450431	2.4569E-06	1.85632E-06	1.55407E-07	1.41934E-07	405.15	708.1	4.65	8497.2	95192
Los Angeles (SC)	2022	OFF - AirGrSupp - Catering Truck	Aggregate	300	Gasoline	0.010439663	0.009602402	0.011488212	0.537496131	0.059879086	12.22844754	0.000902099	0.000681586	0.000106821	0.000173795	496097.05	52162.15	51.31	10635862.39	381822.9
Los Angeles (SC)	2022	OFF - AirGrSupp - Catering Truck	Aggregate	300	Nat Gas	0	0	4.74945E-05	0.027801706	0.003236756	0.936484499	0	0	0	0	50833.55	4310.65	9.52	883683.25	438934.4
Los Angeles (SC)	2022	OFF - AirGrSupp - Deicer	Aggregate	100	Gasoline	2.55813E-05	2.35297E-05	2.81507E-05	0.000879938	0.000166536	0.051448353	3.5871E-06	2.71026E-06	4.97063E-07	6.9816E-07	1992.9	240.9	11.29	22403.7	49158.2
Los Angeles (SC)	2022	OFF - AirGrSupp - Forklift	Aggregate	50	Gasoline	0.002729701	0.002510779	0.003003869	0.253531674	0.006060328	1.936019785	0.000133467	0.000100842	2.35385E-05	3.10822E-05	88724.2	54556.55	75.02	2727827.5	187792.5
Los Angeles (SC)	2022	OFF - AirGrSupp - Forklift	Aggregate	50	Nat Gas	0	0	0.000177375	0.048146754	0.013025484	3.901957199	0	0	0	0	206298	127677	175.55	6383850	8234.4
Los Angeles (SC)	2022	OFF - AirGrSupp - Fuel Truck	Aggregate	175	Gasoline	2.50054E-05	0.000023	0.000027517	0.002460063	0.000283242	0.078438621	5.62321E-06	4.24865E-06	7.79206E-07	1.09071E-06	3113.45	1051.2	48.14	136656	213452
Los Angeles (SC)	2022	OFF - AirGrSupp - Fuel Truck	Aggregate	175	Nat Gas	0	0	1.39413E-05	0.007640313	0.000880904	0.246432075	0	0	0	0	13410.1	3452.9	6.09	483406	13475.8
Los Angeles (SC)	2022	OFF - AirGrSupp - Generator	Aggregate	100	Gasoline	0.000892086	0.000820541	0.000981687	0.0520351	0.00326391	0.652922223	4.55233E-05	3.43954E-05	5.39059E-06	9.78191E-06	27922.5	3343.4	3.72	357743.8	20713.75
Los Angeles (SC)	2022	OFF - AirGrSupp - Ground Power Unit	Aggregate	175	Gasoline	0.004396412	0.00404382	0.004837983	0.451217653	0.040143532	13.05170933	0.000935668	0.00070695	0.000129655	0.000182569	521143.35	50994.15	63.95	7649122.5	22192
Los Angeles (SC)	2022	OFF - AirGrSupp - Hydrant truck	Aggregate	175	Gasoline	0.009815373	0.00902818	0.010801219	0.436001168	0.047895167	8.922207541	0.000639627	0.000483274	7.57408E-05	0.000127844	364930.65	46121.4	30.15	5603750.1	261748.8
Los Angeles (SC)	2022	OFF - AirGrSupp - Lav Cart	Aggregate	25	Gasoline	5.61206E-05	5.16197E-05	6.17573E-05	0.003553886	4.42087E-05	0.006009889	2.70909E-06	2.04687E-06	1.71358E-07	1.55999E-07	445.3	773.8	5.15	9285.6	16067.3
Los Angeles (SC)	2022	OFF - AirGrSupp - Lav Truck	Aggregate	175	Gasoline	0.002424644	0.002230187	0.002668173	0.18151091	0.015734616	4.579383803	0.000328293	0.000248044	4.54914E-05	6.45887E-05	184368.8	61936.85	51.03	8051790.5	780472.2
Los Angeles (SC)	2022	OFF - AirGrSupp - Lav Truck	Aggregate	175	Nat Gas	0	0	4.52664E-06	0.002766808	0.000324055	0.095656018	0	0	0	0	5186.65	1445.4	3.72	187902	17016.3
Los Angeles (SC)	2022	OFF - AirGrSupp - Lift	Aggregate	100	Gasoline	0.004054936	0.00372973	0.004462209	0.201582125	0.018900275	4.784131635	0.000333561	0.000252024	4.62214E-05	6.78097E-05	193563.15	40912.85	108.58	4091285	1314551
Los Angeles (SC)	2022	OFF - AirGrSupp - Lift	Aggregate	100	Nat Gas	0	0	9.58601E-06	0.005015118	0.000547344	0.141606185	0	0	0	0	7763.55	1394.3	4.09	139430	1973117
Los Angeles (SC)	2022	OFF - AirGrSupp - Maint. Truck	Aggregate	175	Gasoline	0.002112147	0.001942753	0.002324289	0.174633274	0.017102801	4.937273651	0.00035395	0.000267429	4.90466E-05	6.91715E-05	197450.4	33397.5	74.22	4341675	289313.6
Los Angeles (SC)	2022	OFF - AirGrSupp - Other	Aggregate	50	Nat Gas	0	0	0.000180805	0.022193973	0.007154276	1.309232232	0	0	0	0	69948.6	25703.3	25.21	1285165	433328
Los Angeles (SC)	2022	OFF - AirGrSupp - Other GSE	Aggregate	50	Gasoline	0.00213423	0.001963064	0.00234859	0.147086033	0.004441961	1.44790765	9.98175E-05	7.54176E-05	1.76039E-05	2.23705E-05	63856.75	24484.2	133.5	1224210	1034450
Los Angeles (SC)	2022	OFF - AirGrSupp - Passenger Stand	Aggregate	175	Gasoline	0.000781692	0.000719	0.000860204	0.064469984	0.007366817	1.942123815	0.00013923	0.000105196	1.71883E-05	2.71195E-05	77412.85	11570.5	61.57	1447469.55	143083.7
Los Angeles (SC)	2022	OFF - AirGrSupp - Passenger Stand	Aggregate	175	Nat Gas	0	0	1.47912E-07	0.000130307	1.58935E-05	0.005307286	0	0	0	0	288.35	3.65	2.22	602.25	376515.8
Los Angeles (SC)	2022	OFF - AirGrSupp - Service Truck	Aggregate	300	Gasoline	0.012955239	0.011916228	0.01425645	0.713337293	0.079931572	17.0406801	0.001257099	0.000949808	0.000174196	0.000241357	688955.75	214119.95	254.35	38541591	206265.2
Los Angeles (SC)	2022	OFF - AirGrSupp - Service Truck	Aggregate	300	Nat Gas	0	0	0.000151926	0.083302119	0.007522193	2.379231736	0	0	0	0	130268.5	32433.9	24.92	5838102	718221.5
Los Angeles (SC)	2022	OFF - AirGrSupp - Sweeper	Aggregate	50	Nat Gas	0	0	1.39954E-06	0.000347159	0.000107724	0.028985635	0	0	0	0	1529.35	613.2	2.22	27594	130987.6
Los Angeles (SC)	2022	OFF - AirGrSupp - Sweeper	Aggregate	100	Gasoline	0.000113805	0.000104678	0.000125235	0.005620614	0.00053601	0.136743415	9.53408E-06	7.20353E-06	1.12897E-06	1.93337E-06	5518.8	2146.2	5.91	114392.46	234768
Los Angeles (SC)	2022	OFF - AirGrSupp - Water Truck	Aggregate	175	Gasoline	0.000154434	0.000142049	0.000169946	0.011476604	0.001306556	0.332169658	0.000023813	1.79921E-05	3.29976E-06	4.65184E-06	13278.7	4865.45	15.67	729817.5	171520.8
Los Angeles (SC)	2022	OFF - ConstMin - Asphalt Pavers	Aggregate	25	Gasoline	0.003675879	0.003381073	0.00404508	0.154188372	0.002685427	0.248099767	0.00187184	0.001414279	6.43972E-06	6.70029E-06	19126	16844.75	42.51	289777.15	180313.7
Los Angeles (SC)	2022	OFF - ConstMin - Asphalt Pavers	Aggregate	50	Gasoline	0.000617461	0.000567941	0.000679478	0.044230226	0.000883332	0.310399513	2.13987E-05	1.61679E-05	3.77389E-06	5.06741E-06	14464.95	6212.3	15.85	198793.6	266201.8
Los Angeles (SC)	2022	OFF - ConstMin - Asphalt Pavers	Aggregate	100	Gasoline	0.0003116	0.00028661	0.000342897	0.013397852	0.000829534	0.321366392	2.24064E-05	1.69293E-05	3.10485E-06	4.55338E-06	12997.65	3416.4	8.68	208400.4	227884.1
Los Angeles (SC)	2022	OFF - ConstMin - Bore/Drill Rigs	Aggregate	25	Gasoline	0.001306054	0.001201308	0.001437232	0.057395389	0.000942857	0.091978247	0.000693949	0.000524317	2.36046E-06	2.48703E-06	7099.25	5380.1	43.41	89658.6	362674.9
Los Angeles (SC)	2022	OFF - ConstMin - Bore/Drill Rigs	Aggregate	25	Diesel	0.00017107	0.000203587	0.000246341	0.000918549	0.001554266	0.205477195	5.85301E-05	5.38477E-05	2.71185E-06	1.71892E-06	6832.8	10300.3	12.68	159643.7	736340
Los Angeles (SC)	2022	OFF - ConstMin - Bore/Drill Rigs	Aggregate	50	Gasoline	4.76018E-05	4.37841E-05	5.23829E-05	0.002656798	8.44156E-05	0.031424346	2.16637E-06	1.63681E-06	3.82063E-07	4.76948E-07	1361.45	529.25	4.91	16936	12088.8
Los Angeles (SC)	2022	OFF - ConstMin - Bore/Drill Rigs	Aggregate	100	Gasoline	0.000293856	0.000270288	0.00032337	0.009590665	0.000996828	0.392275239	2.73504E-05	2.06647E-05	3.78993E-06	5.41521E-06	15457.75	2401.7	22.49	211349.6	8814.75
Los Angeles (SC)	2022	OFF - ConstMin - Bore/Drill Rigs	Aggregate	175	Gasoline	6.57367E-05	6.04646E-05	7.23393E-05	0.004381358	0.000387315	0.135211977	9.69326E-06	7.3238E-06	1.34319E-06	1.88605E-06	5383.75	594.95	5.57	74963.7	7491629
Los Angeles (SC)	2022	OFF - ConstMin - Cement and Mortar Mixers	Aggregate	25	Gasoline	0.051444532	0.047318681	0.056611569	1.767903564	0.034724828	3.198155864	0.01793933	0.01355416	9.62299E-05	0.000082044	234194.95	602731.8	6545.81	4179505.5	15440887
Los Angeles (SC)	2022	OFF - ConstMin - Cement and Mortar Mixers	Aggregate	25	Diesel	0.000430976	0.000512897	0.000620605	0.003009117	0.003883748	0.526249152	0.00015245	0.000140254	7.88649E-06	4.41115E-06	17534.6	53041.8	176.7	547397.8	44884963
Los Angeles (SC)	2022	OFF - ConstMin - Concrete/Industrial Saws	Aggregate	25	Gasoline	0.040113017	0.036895953	0.044141929	1.660451809	0.030655329	2.767417315	0.020369924	0.015390609	7.61554E-05	7.34666E-05	209710.75	261821.8	921.34	2735660.4	92523960
Los Angeles (SC)	2022	OFF - ConstMin - Concrete/Industrial Saws	Aggregate	25	Diesel	1.42033E-05	1.69031E-05	2.04528E-05	0.000069808	0.000129245	0.016953794	4.82928E-06	4.44294E-06	2.15112E-07	1.40488E-07	558.45	755.55	1.26	13599.9	3421218
Los Angeles (SC)	2022	OFF - ConstMin - Concrete/Industrial Saws	Aggregate	50	Gasoline	0.000807144	0.000742411	0.000888212	0.059979488	0.001300899	0.72108923	4.97113E-05	3.75596E-05	8.76713E-06	1.08483E-05	30966.6	11165.35	18.29	390787.25	7061991
Los Angeles (SC)	2022	OFF - ConstMin - Concrete/Industrial Saws	Aggregate	50	Diesel	0.000214318	0.000255056	0.000308617	0.002072983	0.001846305	0.266454279	7.42906E-05	6.83473E-05	3.44459E-06	2.24231E-06	8913.3	6449.55	11.1	212835.15	194873.5
Los Angeles (SC)	2022	OFF - ConstMin - Concrete/Industrial Saws	Aggregate	100	Gasoline	0.000331705	0.000305103	0.000365022	0.016347897	0.000832708	0.77062342	5.37297E-05	4.05958E-05	7.4453E-06	1.05683E-05	30167.25	6398.45	10.48	422297.7	303504.8
Los Angeles (SC)	2022	OFF - ConstMin - Cranes	Aggregate	50	Gasoline	0.000217339	0.000199908	0.000239168	0.014427191	0.000312823	0.09527312	6.56804E-06	4.96252E-06	1.15835E-06	1.5715E-06	4485.85	2303.15	5.57	85216.55	207940.5
Los Angeles (SC)	2022	OFF - ConstMin - Cranes	Aggregate	100	Gasoline	0.000443067	0.000407533	0.000487568	0.017206568	0.001184399	0.376811078	2.62722E-05	1.98501E-05	3.64052E-06	5.37813E-06	15351.9	4628.2	11.14	342486.8	180218.7
Los Angeles (SC)	2022	OFF - ConstMin - Cranes	Aggregate	175	Gasoline	1.96628E-05	1.80858E-05	2.16377E-05	0.000889807	8.79026E-05	0.024761656	1.77515E-06	1.34122E-06	2.45981E-07	3.50359E-07	1000.1	189.8	0.45	23725	38741.1
Los Angeles (SC)	2022	OFF - ConstMin - Crushing/Proc. Equipment	Aggregate	25	Gasoline	0.000588916	0.000541685	0.000648066	0.025018425	0.000446176	0.040954475	0.00030899	0.000233459	1.09791E-06	1.09839E-06	3135.35	3149.95	10.92	37062.1	2095.1
Los Angeles (SC)	2022	OFF - ConstMin - Crushing/Proc. Equipment	Aggregate	100	Gasoline	0.00027816	0.000255851	0.000306098	0.010019178	0.000834384	0.297770173	2.07613E-05	1.56863E-05	2.87688E-06	4.17106E-06	11906.3	1554.9	6.44	149270.4	126341.1
Los Angeles (SC)	2022	OFF - ConstMin - Dumpers/Tenders	Aggregate	25	Gasoline	0.004712501	0.004334559	0.00518582	0.172683912	0.003364669	0.301056991	0.001986954	0.001501254	8.58677E-06	7.84215E-06	22385.45	65046.65	436.26	566111.35	117004.4
Los Angeles (SC)	2022	OFF - ConstMin - Dumpers/Tenders	Aggregate	25	Diesel	4.40946E-05	5.24762E-05	6.34962E-05	0.000216721	0.000401245	0.052633546	1.50796E-05	1.38732E-05	6.6782E-07	4.38912E-07	1744.7	5037	7.62	80592	46238.2
Los Angeles (SC)	2022	OFF - ConstMin - Dumpers/Tenders	Aggregate	100	Gasoline	2.50869E-05	2.30749E-05	2.76066E-05	0.000833999	8.33327E-05	0.032298327	2.25192E-06	1.70145E-06	3.12047E-07	4.48817E-07	1281.15	511	4.02	33726	511255.5
Los Angeles (SC)	2022	OFF - ConstMin - Excavators	Aggregate	25	Diesel	0.000309102	0.000367857	0.000445107	0.00151921	0.00281272	0.368960315	0.000105098	9.66903E-05	4.68141E-06	3.08616E-06	12267.65	16403.1	11.74	377271.3	829484.4
Los Angeles (SC)	2022	OFF - ConstMin - Other Construction Equipment	Aggregate	25	Diesel	0.000996702	0.001186157	0.00143525	0.007037968	0.009003293	1.224907668	0.000348914	0.000321001	1.84232E-05	1.02676E-05	40814.3	84771.25	122.76	1151082.25	9709
Los Angeles (SC)	2022	OFF - ConstMin - Other Construction Equipment	Aggregate	175	Gasoline	0.000309404	0.00028459	0.00034048	0.026348667	0.001020625	0.797585827	5.71784E-05	4.32015E-05	7.92318E-06	1.11309E-05	31773.25	5796.2	15.6	730321.2	1099314
Los Angeles (SC)	2022	OFF - ConstMin - Pavers	Aggregate	25	Diesel	8.36744E-05	9.95795E-05	0.000120491	0.000411117	0.000761702	0.099845198	2.89089E-05	2.65962E-05	1.26685E-06	8.34667E-07	3317.85	3912.8	4.75	93907.2	94301.4
Los Angeles (SC)	2022	OFF - ConstMin - Paving Equipment	Aggregate	25	Gasoline	0.084653951	0.077864704	0.093156509	3.084476304	0.062231449	5.522225877	0.035224383	0.026613978	0.000162115	0.000142093	405606.25	880358.1	4653.79	7216838.4	258693.8
Los Angeles (SC)	2022	OFF - ConstMin - Paving Equipment	Aggregate	25	Diesel	9.90762E-05	0.000117909	0.00014267	0.000486951	0.000901559	0.118262525	0.000033687	3.09921E-05	1.50053E-06	9.8801E-07	3927.4	6840.1	8.24	129961.9	1056226
Los Angeles (SC)	2022	OFF - ConstMin - Paving Equipment	Aggregate	50	Gasoline	0.000463454	0.000426285	0.000510003	0.034249012	0.000752789	0.391359771	0.00002698	2.03849E-05	4.75822E-06	5.92541E-06	16914.1	7570.1	43.24	280093.7	1677358
Los Angeles (SC)	2022	OFF - ConstMin - Paving Equipment	Aggregate	100	Gasoline	8.39843E-05	7.72487E-05	9.24196E-05	0.004049256	0.000223351	0.177901657	1.24037E-05	9.37171E-06	1.71878E-06	2.44484E-06	6978.6	1945.45	11.15	128399.7	214714.9
Los Angeles (SC)	2022	OFF - ConstMin - Plate Compactors	Aggregate	25	Gasoline	0.035714465	0.032850165	0.03930159	1.152276532	0.024584415	2.183114513	0.01192933	0.009013271	6.64765E-05	0.000054904	156723.7	498684.9	2572.49	3060539.6	305665.6
Los Angeles (SC)	2022	OFF - ConstMin - Plate Compactors	Aggregate	25	Diesel	0.000292729	0.000348372	0.00042153	0.002211094	0.002639779	0.362122396	0.00010315	9.48984E-05	5.63494E-06	3.03657E-06	12070.55	61334.6	102.14	490676.8	1737371
Los Angeles (SC)	2022	OFF - ConstMin - Rollers	Aggregate	25	Gasoline	0.018242424	0.016779381	0.020074674	0.752563482	0.013493378	1.240968759	0.009034074	0.006825745	3.34304E-05	3.31242E-05	94553.25	125395.75	503.55	1543311.25	464688.8
Los Angeles (SC)	2022	OFF - ConstMin - Rollers	Aggregate	25	Diesel	0.001787409	0.002127164	0.002573868	0.011247725	0.01618842	2.174058648	0.00061928	0.000569737	3.09018E-05	1.82112E-05	72390.45	189314.55	272.14	2262098.45	535017
Los Angeles (SC)	2022	OFF - ConstMin - Rollers	Aggregate	50	Gasoline	0.001051829	0.000967473	0.001157474	0.07388267	0.001385868	0.376129795	2.59301E-05	1.95916E-05	4.57305E-06	6.58265E-06	18790.2	6927.7	11.14	256324.9	753790.7
Los Angeles (SC)	2022	OFF - ConstMin - Rollers	Aggregate	100	Gasoline	0.002072959	0.001906708	0.002281165	0.08494325	0.005027845	1.417256346	9.88145E-05	7.46599E-05	1.36927E-05	2.06597E-05	58973.05	13030.5	20.97	977287.5	11944161
Los Angeles (SC)	2022	OFF - ConstMin - Rough Terrain Forklifts	Aggregate	50	Gasoline	0.000146988	0.0001352	0.000161752	0.0097505	0.000211779	0.064576002	4.45181E-06	3.36359E-06	7.85126E-07	1.06642E-06	3044.1	927.1	2.23	43573.7	1602032
Los Angeles (SC)	2022	OFF - ConstMin - Rough Terrain Forklifts	Aggregate	100	Gasoline	0.001923485	0.001769221	0.002116678	0.074648977	0.005147596	1.639735865	0.000114326	8.63799E-05	1.58421E-05	2.33871E-05	66758.5	13096.2	31.68	1113177	1849178
Los Angeles (SC)	2022	OFF - ConstMin - Rough Terrain Forklifts	Aggregate	175	Gasoline	7.43031E-05	0.000068344	8.17661E-05	0.003368796	0.000332596	0.093808599	6.72508E-06	5.08117E-06	9.3189E-07	1.31832E-06	3763.15	459.9	1.13	65305.8	1896726
Los Angeles (SC)	2022	OFF - ConstMin - Rubber Tired Loaders	Aggregate	25	Diesel	8.25631E-05	9.82569E-05	0.000118891	0.00040579	0.000751295	0.098551576	2.80724E-05	2.58266E-05	1.25043E-06	8.24566E-07	3277.7	4252.25	4.44	106306.25	926724.1
Los Angeles (SC)	2022	OFF - ConstMin - Rubber Tired Loaders	Aggregate	50	Gasoline	0.000350233	0.000322145	0.00038541	0.024792115	0.000474529	0.145997854	0.000010065	7.60464E-06	1.77507E-06	2.46785E-06	7044.5	2857.95	5.55	114318	68466.7
Los Angeles (SC)	2022	OFF - ConstMin - Rubber Tired Loaders	Aggregate	100	Gasoline	0.002105536	0.001936672	0.002317014	0.087930684	0.005322751	1.725362168	0.000120296	9.08906E-05	1.66694E-05	2.48102E-05	70820.95	18976.35	37.03	1366297.2	153475.2
Los Angeles (SC)	2022	OFF - ConstMin - Signal Boards	Aggregate	25	Gasoline	0.000911569	0.000838461	0.001003126	0.03748409	0.000724936	0.064129525	0.000465869	0.00035199	1.84342E-06	1.68019E-06	4796.1	8322	31.37	65064.9	99119.4
Los Angeles (SC)	2022	OFF - ConstMin - Signal Boards	Aggregate	25	Diesel	0.004575144	0.005444799	0.006588207	0.034557828	0.041257858	5.6597151	0.001612167	0.001483194	8.80702E-05	4.74741E-05	188712.3	670256.8	892.9	4021540.8	804766.6
Los Angeles (SC)	2022	OFF - ConstMin - Signal Boards	Aggregate	50	Diesel	9.40451E-05	0.000111921	0.000135425	0.000896274	0.000804407	0.117779024	3.20022E-05	0.000029442	1.52259E-06	9.92602E-07	3945.65	2376.15	4.45	87917.55	22294.2
Los Angeles (SC)	2022	OFF - ConstMin - Skid Steer Loaders	Aggregate	25	Gasoline	0.059974792	0.055164814	0.0659986	2.507104082	0.042772217	3.996753931	0.030154345	0.022783283	0.000101434	0.000108487	309676.95	280736.1	879.3	5313290.4	14819
Los Angeles (SC)	2022	OFF - ConstMin - Skid Steer Loaders	Aggregate	25	Diesel	0.008131908	0.009677643	0.011709948	0.03967471	0.073866587	9.597315895	0.00290508	0.002672674	0.000121772	8.02768E-05	319104.9	508357.4	609.03	10167148	22330.7
Los Angeles (SC)	2022	OFF - ConstMin - Skid Steer Loaders	Aggregate	50	Gasoline	0.002471572	0.002273352	0.002719814	0.193732709	0.003859408	2.072080987	0.000142847	0.000107929	2.51927E-05	3.16231E-05	90268.15	47194.5	152.11	1510224	2738646
Los Angeles (SC)	2022	OFF - ConstMin - Skid Steer Loaders	Aggregate	100	Gasoline	0.00142068	0.001306741	0.001563372	0.074549864	0.003580415	3.064191196	0.000213643	0.000161419	2.96044E-05	4.22323E-05	120552.2	28236.4	90.99	2258912	822202.6
Los Angeles (SC)	2022	OFF - ConstMin - Surfacing Equipment	Aggregate	25	Gasoline	0.040790229	0.037518853	0.044887159	1.532584283	0.031588862	2.657295715	0.018604806	0.014056964	0.00007672	6.93825E-05	198052.65	537371.25	1255.97	4181494.75	275180.8

Los Angeles (SC)	2022	OFF - ConstMin - Tampers/Rammers	Aggregate	25	Gasoline	0.004684694	0.004308981	0.00515522	0.218510782	0.003969541	0.412626514	0.003113147	0.002352156	1.65022E-05	1.02742E-05	29327.75	137064.8	752.41	578517.7	1110111
Los Angeles (SC)	2022	OFF - ConstMin - Tractors/Loaders/Backhoes	Aggregate	25	Diesel	0.00153392	0.001825492	0.002208845	0.007539084	0.013958132	1.830966387	0.000521374	0.000479664	2.32315E-05	1.53132E-05	60871.05	84333.25	89.44	1939664.75	1045845
Los Angeles (SC)	2022	OFF - ConstMin - Tractors/Loaders/Backhoes	Aggregate	100	Gasoline	0.001005815	0.000925149	0.001106839	0.069708145	0.002591173	1.208814695	8.42815E-05	6.36793E-05	1.16788E-05	1.75256E-05	50026.9	17092.95	19.6	1076855.85	47829.6
Los Angeles (SC)	2022	OFF - ConstMin - Trenchers	Aggregate	25	Gasoline	0.036964928	0.034000341	0.040677648	1.527946	0.027686063	2.48469349	0.01874629	0.014163864	0.00006597	6.67894E-05	190650.45	196107.2	451.47	2902790.25	3862711
Los Angeles (SC)	2022	OFF - ConstMin - Trenchers	Aggregate	25	Diesel	0.000722803	0.000860195	0.001040836	0.003916099	0.006565977	0.868756379	0.000247465	0.000227668	1.15126E-05	7.27143E-06	28904.35	30214.7	48.84	674877.7	1188648
Los Angeles (SC)	2022	OFF - ConstMin - Trenchers	Aggregate	50	Gasoline	0.004300401	0.003955509	0.004732329	0.284163503	0.006230829	1.912429271	0.000131841	9.96133E-05	2.32517E-05	3.14939E-05	89899.5	40825.25	101.5	1224757.5	746680.5
Los Angeles (SC)	2022	OFF - ConstMin - Trenchers	Aggregate	100	Gasoline	0.001598334	0.001470148	0.00175887	0.061798831	0.004304213	1.380596958	9.62585E-05	7.27287E-05	1.33385E-05	0.00001967	56147.95	13548.8	33.68	894220.8	5178708
Los Angeles (SC)	2022	OFF - Industrial - Aerial Lifts	Aggregate	25	Gasoline	0.019406411	0.017850017	0.021355571	0.803210765	0.013843956	1.279538548	0.009653747	0.007293942	3.24934E-05	3.47546E-05	99207	113701.15	302.95	2144707.15	1185776
Los Angeles (SC)	2022	OFF - Industrial - Aerial Lifts	Aggregate	25	Diesel	0.002094149	0.00249221	0.003015574	0.011958552	0.018941225	2.499987493	0.000746382	0.000686672	3.40609E-05	2.09309E-05	83201.75	181138.55	453.6	3166422.45	151840
Los Angeles (SC)	2022	OFF - Industrial - Aerial Lifts	Aggregate	25	Nat Gas	0	0	0.001753114	0.466840539	0.01284707	2.746516514	0	0	0	0	183598.65	155347.65	413.89	2930362.35	2890.8
Los Angeles (SC)	2022	OFF - Industrial - Aerial Lifts	Aggregate	50	Gasoline	0.006002052	0.005520688	0.006604893	0.494758157	0.009066204	4.693520604	0.000323567	0.000244473	5.70646E-05	7.28234E-05	207874.8	130706.5	361.73	4313314.5	1927.2
Los Angeles (SC)	2022	OFF - Industrial - Aerial Lifts	Aggregate	100	Gasoline	0.004732311	0.00435278	0.00520762	0.26297507	0.011956185	9.42221158	0.000656939	0.000496354	9.10317E-05	0.000130581	372745.3	130706.5	361.73	8757335.5	1635.597
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	25	Gasoline	0.000572411	0.000526504	0.000629904	0.03539314	0.000482367	0.055950104	2.81418E-05	2.12627E-05	1.41803E-06	1.51012E-06	4310.65	6252.45	6.94	143806.35	15881.83
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	25	Nat Gas	0	0	8.45255E-05	0.01339134	0.0003739	0.069832605	0	0	0	0	4869.1	4967.65	3.98	114255.95	10544.16
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	50	Gasoline	0.152028765	0.139836058	0.167298382	17.96620048	0.354481306	63.2442589	0.004360003	0.003294224	0.000768935	0.001220504	3483932.3	2173582.3	1206.5	89116874.3	46231.65
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	50	Nat Gas	0	0	0.011746663	1.94967246	0.509873043	121.4244081	0	0	0	0	6468471.6	4845123.15	2689.41	198650049.2	436849.8
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	100	Gasoline	0.320911315	0.295174228	0.353143327	30.5537786	1.600395671	374.6708437	0.026122948	0.019737338	0.003619843	0.005618338	16037567.1	7627777.3	4233.99	533944411	594806.3
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	100	Nat Gas	0	0	0.069676079	32.86723426	3.29680423	727.593285	0	0	0	0	40482310.6	17004860.9	9438.97	1190340263	827479.5
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	175	Gasoline	0.016754958	0.01541121	0.018437809	1.171214713	0.098957115	27.77684295	0.001991304	0.001504541	0.000275934	0.000393354	1122831.25	278776.05	154.76	40701303.3	187327.7
Los Angeles (SC)	2022	OFF - Industrial - Forklifts	Aggregate	175	Nat Gas	0	0	0.003195762	1.925288997	0.163953967	55.53477681	0	0	0	0	3038296.5	622284.85	345.41	90853588.1	157387.2
Los Angeles (SC)	2022	OFF - Industrial - Other General Industrial Equipment	Aggregate	25	Gasoline	0.01603024	0.014744615	0.017640301	0.981756369	0.013003237	1.623211379	0.000782774	0.000591429	0.000044994	4.28397E-05	122285.95	219430.7	565.48	2317728.1	0
Los Angeles (SC)	2022	OFF - Industrial - Other General Industrial Equipment	Aggregate	25	Diesel	0.002558538	0.003044871	0.003684294	0.014497832	0.023833493	3.15916361	0.000899886	0.000827896	4.22363E-05	2.64366E-05	105087.15	200315.65	140.45	3609178.4	632.1881
Los Angeles (SC)	2022	OFF - Industrial - Other General Industrial Equipment	Aggregate	50	Gasoline	0.004717755	0.004339391	0.005191602	0.454137759	0.010552856	3.159926474	0.000217843	0.000164592	0.000038419	5.15884E-05	147259.25	82460.8	115.54	2473824	14566.17
Los Angeles (SC)	2022	OFF - Industrial - Other General Industrial Equipment	Aggregate	100	Gasoline	0.001459438	0.001342391	0.001606022	0.106566833	0.008702252	2.703788015	0.000188515	0.000142433	2.61224E-05	3.81264E-05	108832.05	27101.25	37.96	2140998.75	205618
Los Angeles (SC)	2022	OFF - Industrial - Other General Industrial Equipment	Aggregate	175	Gasoline	0.000204819	0.000188392	0.00022539	0.019792405	0.001752166	0.560495458	4.01816E-05	3.03594E-05	5.56794E-06	7.84982E-06	22407.35	2620.7	3.69	456001.8	12658697
Los Angeles (SC)	2022	OFF - Industrial - Other Material Handling Equipment	Aggregate	50	Gasoline	6.69218E-05	6.15547E-05	7.36434E-05	0.00495915	0.000132434	0.032433438	2.23593E-06	1.68937E-06	3.94331E-07	5.38325E-07	1536.65	631.45	1.63	25889.45	101329.3
Los Angeles (SC)	2022	OFF - Industrial - Other Material Handling Equipment	Aggregate	100	Gasoline	0.001833555	0.001686504	0.002017716	0.08357112	0.00797212	1.869000785	0.000130311	9.84574E-05	1.80572E-05	2.66042E-05	75941.9	27922.5	72.25	1507815	43483.32
Los Angeles (SC)	2022	OFF - Industrial - Sweepers/Scrubbers	Aggregate	25	Gasoline	0.012236474	0.011255109	0.013465493	0.789061308	0.010009873	1.280330008	0.000598749	0.000452388	3.37189E-05	3.40743E-05	97265.2	107463.3	397.68	1390379.9	521442.8
Los Angeles (SC)	2022	OFF - Industrial - Sweepers/Scrubbers	Aggregate	25	Diesel	0.000509532	0.000606385	0.000733726	0.00312801	0.004815514	0.642314221	0.000182963	0.000168326	8.84794E-06	5.37529E-06	21367.1	29743.85	45.73	550244.8	1674715
Los Angeles (SC)	2022	OFF - Industrial - Sweepers/Scrubbers	Aggregate	50	Gasoline	0.013067646	0.012019621	0.014380147	1.132702325	0.02860665	10.21384588	0.000704133	0.000532012	0.000124182	0.000159642	455698.85	173750.95	336.42	6081283.25	3513152
Los Angeles (SC)	2022	OFF - Industrial - Sweepers/Scrubbers	Aggregate	100	Gasoline	0.007626747	0.007015081	0.008392769	0.484160094	0.048652124	16.38267041	0.001142239	0.000863025	0.000158279	0.000227572	649605.1	145069.25	280.9	9864709	2107049
Los Angeles (SC)	2022	OFF - Industrial - Sweepers/Scrubbers	Aggregate	175	Gasoline	5.90507E-05	5.43149E-05	6.49817E-05	0.006441711	0.00057687	0.190718613	1.36725E-05	1.03303E-05	1.89459E-06	2.66605E-06	7610.25	839.5	1.61	117530	2883537
Los Angeles (SC)	2022	OFF - Light Commercial - Air Compressors	Aggregate	25	Gasoline	0.123470157	0.113567851	0.135871376	2.849451207	0.074080967	6.256102445	0.023826891	0.01800254	0.000195411	0.000149079	425546.2	1397595.95	2891.18	8613821.15	944137.8
Los Angeles (SC)	2022	OFF - Light Commercial - Air Compressors	Aggregate	25	Diesel	0.000551612	0.000656463	0.000794321	0.002851114	0.004799882	0.609562811	0.000212879	0.000195848	8.08714E-06	5.10533E-06	20294	37040.2	45.5	739825.8	61405.02
Los Angeles (SC)	2022	OFF - Light Commercial - Air Compressors	Aggregate	50	Gasoline	0.006592865	0.006064118	0.007255046	0.457015856	0.008893179	2.684916352	0.000185096	0.00013985	3.26437E-05	4.54584E-05	129761.15	57896.3	119.78	2026370.5	102193.3
Los Angeles (SC)	2022	OFF - Light Commercial - Air Compressors	Aggregate	50	Diesel	0.007112015	0.008463885	0.010241301	0.060357714	0.049648765	6.818597923	0.002303633	0.002119342	8.81475E-05	5.75167E-05	228632.35	223693.9	274.81	8276674.3	4347146
Los Angeles (SC)	2022	OFF - Light Commercial - Air Compressors	Aggregate	100	Gasoline	0.021754229	0.02000954	0.023939202	0.884313892	0.055171003	17.21685213	0.0012004	0.000906969	0.000166339	0.000247743	707183.85	187770.6	388.45	13143942	6929611
Los Angeles (SC)	2022	OFF - Light Commercial - Air Compressors	Aggregate	175	Gasoline	0.001874249	0.001723934	0.002062497	0.079358803	0.007752527	2.156295865	0.000154583	0.000116796	2.14205E-05	3.03252E-05	86563.4	12629	26.12	1692286	15023607
Los Angeles (SC)	2022	OFF - Light Commercial - Gas Compressors	Aggregate	50	Nat Gas	0	0	0.000399358	0.07073168	0.014501151	4.8163885	0	0	0	0	255908.8	74854.2	8.81	2395334.4	16431683
Los Angeles (SC)	2022	OFF - Light Commercial - Gas Compressors	Aggregate	100	Nat Gas	0	0	0.002177712	1.1311117	0.08580756	27.065618	0	0	0	0	1497646.1	154697.95	18.2	13613419.6	33794778
Los Angeles (SC)	2022	OFF - Light Commercial - Gas Compressors	Aggregate	175	Nat Gas	0	0	0.000607357	0.23009892	0.0229617	7.0439156	0	0	0	0	384618.75	24951.4	2.93	3642904.4	8447265
Los Angeles (SC)	2022	OFF - Light Commercial - Gas Compressors	Aggregate	300	Nat Gas	0	0	0.000467244	0.26477137	0.022211681	7.2596606	0	0	0	0	398335.45	19961.85	2.35	4191988.5	55230597
Los Angeles (SC)	2022	OFF - Light Commercial - Gas Compressors	Aggregate	600	Nat Gas	0	0	0.000658036	0.37288635	0.03128144	10.224023	0	0	0	0	560986.75	17465.25	2.06	5903254.5	37153.37
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	25	Gasoline	0.918826239	0.845136375	1.011112228	49.08824524	0.649133231	82.53630555	0.054575527	0.041234842	0.002260838	0.002166716	6184899.45	8725135.2	75938.47	93588482	1113934
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	25	Diesel	0.013135511	0.015632343	0.018915136	0.081889049	0.124948236	15.94006069	0.005420467	0.004986829	0.000222481	0.000133516	530735.55	872813.55	2585.49	12550674.65	2507018
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	50	Gasoline	0.033311505	0.030639922	0.036657279	2.044627657	0.069542913	23.3062547	0.001606712	0.00121396	0.000283362	0.000353227	1008286.95	452764.25	3941.99	14488456	8108834
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	50	Diesel	0.013626971	0.016217222	0.019622839	0.129765523	0.127366359	18.87225236	0.005022254	0.004620474	0.000243971	0.00015841	629690.7	450289.55	1333.85	14859555.15	2721317
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	100	Gasoline	0.007699397	0.007081905	0.008472716	0.287864015	0.042764424	11.54382718	0.000804863	0.000608119	0.000111529	0.000159377	454943.3	87446.7	761.3	7258076.1	3578848
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	100	Nat Gas	0	0	3.60248E-05	0.023522558	0.002647235	0.748459148	0	0	0	0	40730.35	6515.25	56.63	540765.75	1567728
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	175	Gasoline	0.000756635	0.000695953	0.000832631	0.060511056	0.007492757	1.865975146	0.000133771	0.000101071	1.85365E-05	0.000026025	74288.45	8267.25	71.93	1207018.5	13832121
Los Angeles (SC)	2022	OFF - Light Commercial - Generator Sets	Aggregate	175	Nat Gas	0	0	4.01334E-05	0.028188461	0.003665782	1.091454273	0	0	0	0	58878.15	5391.05	46.98	787093.3	7524.592
Los Angeles (SC)	2022	OFF - Light Commercial - Pressure Washers	Aggregate	25	Gasoline	0.097978642	0.090120755	0.107819518	3.576015598	0.050422684	6.952024785	0.009624119	0.007271556	0.000208236	0.000172013	491012.6	910842.9	7927.42	6306524.75	630059.1
Los Angeles (SC)	2022	OFF - Light Commercial - Pressure Washers	Aggregate	25	Diesel	7.15479E-05	8.51479E-05	0.000103029	0.000515023	0.000702612	0.090046462	3.08591E-05	2.83903E-05	1.33548E-06	7.5019E-07	2982.05	12362.55	85.45	174707.25	1208059
Los Angeles (SC)	2022	OFF - Light Commercial - Pressure Washers	Aggregate	50	Gasoline	0.000293691	0.000270137	0.000323189	0.019135988	0.000498791	0.235974539	1.62679E-05	1.22913E-05	2.86902E-06	3.54578E-06	10121.45	4036.9	35.24	117070.1	2109227
Los Angeles (SC)	2022	OFF - Light Commercial - Pressure Washers	Aggregate	50	Diesel	4.64988E-05	5.53374E-05	6.69583E-05	0.000529872	0.000587684	0.090681362	1.97256E-05	1.81476E-05	1.17228E-06	7.58454E-07	3014.9	4628.2	32	175871.6	1555695
Los Angeles (SC)	2022	OFF - Light Commercial - Pumps	Aggregate	25	Gasoline	0.30616745	0.28161282	0.336918602	10.3411768	0.210332623	19.20291039	0.119395621	0.090210025	0.000585525	0.000486752	1389434.55	3867331.95	17522.88	21458736.9	2942617
Los Angeles (SC)	2022	OFF - Light Commercial - Pumps	Aggregate	25	Diesel	0.007283071	0.008667456	0.010487622	0.043898857	0.064197013	8.18312626	0.002916724	0.002683386	0.000117005	6.85942E-05	272665.95	586277.6	1456.62	6443166.15	1492210
Los Angeles (SC)	2022	OFF - Light Commercial - Pumps	Aggregate	50	Gasoline	0.005055136	0.004649714	0.005562869	0.362263357	0.007989612	3.518616495	0.00024257	0.000183275	0.00004278	0.000054445	155413.35	69539.8	315.05	2155733.8	851282.1
Los Angeles (SC)	2022	OFF - Light Commercial - Pumps	Aggregate	50	Diesel	0.008752385	0.010416062	0.012603434	0.079786895	0.075542168	11.04566679	0.003119806	0.002870222	0.000142793	0.000092805	368905.5	235052.7	583.96	8696949.9	41261.16
Los Angeles (SC)	2022	OFF - Light Commercial - Pumps	Aggregate	100	Gasoline	0.008394444	0.007721209	0.009237573	0.374730482	0.02358863	13.22895811	0.000922355	0.00069689	0.00012781	0.000183548	523939.25	88132.9	399.29	8196359.7	132952.6
Los Angeles (SC)	2022	OFF - Light Commercial - Pumps	Aggregate	175	Gasoline	0.000285738	0.000262822	0.000314437	0.020040927	0.00118534	0.600575877	4.30549E-05	3.25304E-05	5.96609E-06	8.38943E-06	23947.65	2657.2	12.05	382636.8	123596.4
Los Angeles (SC)	2022	OFF - Light Commercial - Welders	Aggregate	25	Gasoline	0.299021185	0.275039686	0.329054574	12.45672976	0.217196823	20.01892658	0.151036966	0.114116819	0.000517002	0.000541224	1544924.55	1927805.9	9279.76	30266179.6	2891088
Los Angeles (SC)	2022	OFF - Light Commercial - Welders	Aggregate	25	Diesel	0.00645493	0.0076819	0.009295099	0.036167103	0.056536814	7.193540867	0.002538619	0.002335529	9.92199E-05	6.02714E-05	239582.35	612229.1	953.34	9313902.1	1847115
Los Angeles (SC)	2022	OFF - Light Commercial - Welders	Aggregate	50	Gasoline	0.012382307	0.011389246	0.013625974	0.760002426	0.0198276	7.059961493	0.000486707	0.000367735	8.58363E-05	0.00011006	314166.45	130038.55	625.96	5851734.75	26000240
Los Angeles (SC)	2022	OFF - Light Commercial - Welders	Aggregate	50	Diesel	0.030516473	0.036317125	0.043943721	0.259942221	0.223387842	31.33719985	0.010178246	0.009363986	0.000405112	0.000264009	1049451.65	882073.6	1373.5	40575385.6	2666538
Los Angeles (SC)	2022	OFF - Light Commercial - Welders	Aggregate	100	Gasoline	0.009708706	0.008930068	0.010683839	0.35006834	0.029348931	11.08288617	0.000772725	0.000583837	0.000107076	0.000154676	441522.25	132721.3	638.91	9290491	1959297
Los Angeles (SC)	2022	OFF - Light Commercial - Welders	Aggregate	175	Gasoline	0.000805416	0.000740822	0.000886311	0.046242084	0.004107793	1.379902004	9.89243E-05	7.47428E-05	1.37079E-05	1.92915E-05	55067.55	9150.55	44.05	1189571.5	12756.78
Los Angeles (SC)	2022	OFF - Military - A/C unit	Aggregate	100	Diesel	6.22752E-05	7.41126E-05	8.96762E-05	0.001017529	0.00082691	0.173547776	4.14803E-05	3.81619E-05	2.0358E-06	1.44988E-06	5763.35	1660.75	5.54	167735.75	4833035
Los Angeles (SC)	2022	OFF - Military - A/C unit	Aggregate	300	Diesel	3.13555E-05	3.73156E-05	4.51519E-05	0.00026507	0.000410033	0.149208051	1.21934E-05	0.000011218	1.67885E-06	1.23869E-06	4923.85	697.15	2.31	145007.2	11317818
Los Angeles (SC)	2022	OFF - Military - A/C unit	Aggregate	600	Diesel	1.80575E-05	2.14899E-05	2.60027E-05	0.000155774	0.000225973	0.089334647	7.07806E-06	6.51181E-06	8.76849E-07	7.39171E-07	2938.25	273.75	0.9	86231.25	21883496
Los Angeles (SC)	2022	OFF - Military - Aircraft Support	Aggregate	100	Diesel	1.13979E-05	1.35644E-05	1.64129E-05	0.000186232	0.000151345	0.03176343	7.59189E-06	6.98454E-06	3.72601E-07	2.68122E-07	1065.8	456.25	1.49	31025	44708188
Los Angeles (SC)	2022	OFF - Military - Aircraft Support	Aggregate	175	Diesel	2.52435E-05	3.00418E-05	3.63506E-05	0.000478	0.000307688	0.093421849	1.35311E-05	1.24486E-05	1.05116E-06	7.80492E-07	3102.5	649.7	2.16	90958	68947097
Los Angeles (SC)	2022	OFF - Military - Cart	Aggregate	100	Diesel	5.81865E-06	6.92468E-06	8.37886E-06	9.50724E-05	0.000077262	0.016215365	3.87569E-06	3.56564E-06	1.90215E-07	1.34979E-07	536.55	189.8	0.65	15373.8	9989582
Los Angeles (SC)	2022	OFF - Military - Cart	Aggregate	175	Diesel	2.06906E-06	2.46236E-06	2.97945E-06	0.000039179	2.52194E-05	0.007657255	1.10906E-06	1.02034E-06	8.61573E-08	6.33575E-08	251.85	58.4	0.16	8935.2	1.27E+08
Los Angeles (SC)	2022	OFF - Military - Cart	Aggregate	300	Diesel	6.90634E-06	8.21912E-06	9.94513E-06	5.83841E-05	9.03137E-05	0.032864472	2.68572E-06	2.47086E-06	3.69782E-07	2.72713E-07	1084.05	160.6	0.52	31638.2	51854.9
Los Angeles (SC)	2022	OFF - Military - Communications	Aggregate	50	Diesel	1.74178E-06	2.07286E-06	2.50816E-06	1.77334E-05	1.80029E-05	0.002669196	6.81207E-07	6.2671E-07	3.4506E-08	1.65281E-08	65.7	58.4	0.17	2336	2672403
Los Angeles (SC)	2022	OFF - Military - Communications	Aggregate	100	Diesel	2.87341E-06	3.41959E-06	4.13771E-06	4.69493E-05	3.81541E-05	0.008007587	1.91392E-06	1.76081E-06	9.39331E-08	6.61122E-08	262.8	87.6	0.32	7008	1418176
Los Angeles (SC)	2022	OFF - Military - Compressor (Military)	Aggregate	50	Diesel	2.13368E-06	2.53925E-06	3.07249E-06	2.17234E-05	2.20536E-05	0.003269765	8.34478E-07	7.6772E-07	4.22699E-08	2.66285E-08	105.85	58.4	0.17	2861.6	7773380
Los Angeles (SC)	2022	OFF - Military - Compressor (Military)	Aggregate	100	Diesel	6.41788E-05	7.63781E-05	9.24175E-05	0.001048632	0.000852188	0.178852788	4.27483E-05	3.93284E-05	2.09803E-06	1.49763E-06	5953.15	2441.85	8.13	173371.35	5166513
Los Angeles (SC)	2022	OFF - Military - Compressor (Military)	Aggregate	175	Diesel	3.01119E-06	3.58356E-06	4.33611E-06	5.70186E-05	3.67027E-05	0.011143892	1.61406E-06	1.48494E-06	1.25388E-07	9.18225E-08	365	58.4	0.17	9752.8	4051081
Los Angeles (SC)	2022	OFF - Military - Compressor (Military)	Aggregate	300	Diesel	6.25427E-06	7.4431E-06	9.00615E-06	5.28717E-05	8.17866E-05	0.029761533	2.43214E-06	2.23757E-06	3.34868E-07	2.45166E-07	974.55	124.1	0.42	27674.3	2908508
Los Angeles (SC)	2022	OFF - Military - Compressor (Military)	Aggregate	600	Diesel	3.52179E-05	4.19122E-05	5.07138E-05	0.00030381	0.000440722	0.174231753	1.38045E-05	1.27002E-05	1.71014E-06	1.4462E-06	5748.75	456.25	1.49	170181.25	2711901
Los Angeles (SC)	2022	OFF - Military - Crane	Aggregate	100	Diesel	4.52161E-06	5.38108E-06	6.51111E-06	0.000157234	8.04231E-05	0.028026557	1.19913E-06	1.1032E-06	3.28766E-07	2.31393E-07	919.8	255.5	0.85	26827.5	8607.079
Los Angeles (SC)	2022	OFF - Military - Crane	Aggregate	175	Diesel	8.97758E-07	1.06841E-06	1.29277E-06	3.50341E-05	8.49916E-06	0.007056686	2.30555E-07	2.12111E-07	7.93998E-08	5.96846E-08	237.25	32.85	0.16	4631.85	1237698
Los Angeles (SC)	2022	OFF - Military - Crane	Aggregate	300	Diesel	8.20878E-07	9.76913E-07	1.18207E-06	0.000012078	5.73966E-06	0.007140098	1.71052E-07	1.57368E-07	8.03384E-08	5.96846E-08	237.25	32.85	0.09	7029.9	1899582
Los Angeles (SC)	2022	OFF - Military - Deicer	Aggregate	100	Diesel	2.63396E-06	3.13463E-06	3.7929E-06	4.30369E-05	3.49746E-05	0.007340288	1.75443E-06	1.61407E-06	8.61053E-08	6.24393E-08	248.2	58.4	0.17	6424	3214916
Los Angeles (SC)	2022	OFF - Military - Generator (Military)	Aggregate	50	Diesel	1.11691E-05	1.32922E-05	1.60836E-05	0.000113715	0.000115444	0.017116217	4.36824E-06	4.01878E-06	2.2127E-07	1.44161E-07	573.05	434.35	1.45	16505.3	4852843
Los Angeles (SC)	2022	OFF - Military - Generator (Military)	Aggregate	100	Diesel	0.00033389	0.000397357	0.000480802	0.00545551	0.004433505	0.930481614	0.000222398	0.000204606	0.000010915	7.7792E-06	30922.8	10891.6	36.23	904002.8	6883597
Los Angeles (SC)	2022	OFF - Military - Generator (Military)	Aggregate	175	Diesel	0.000358489	0.000426632	0.000516224	0.006788205	0.004369549	1.326707105	0.000192158	0.000176785	1.49277E-05	1.10775E-05	44033.6	8770.95	29.16	1289329.65	699239.1
Los Angeles (SC)	2022	OFF - Military - Generator (Military)	Aggregate	300	Diesel	0.000111795	0.000133045	0.000160985	0.000945081	0.001461935	0.531987393	4.34746E-05	3.99966E-05	5.98577E-06	4.41758E-06	17560.15	2314.1	7.7	516044.3	6580111
Los Angeles (SC)	2022	OFF - Military - Generator (Military)	Aggregate	600	Diesel	6.80619E-05	8.09993E-05	9.80092E-05	0.000587141	0.000851736	0.336719054	2.66785E-05	2.45442E-05	3.30501E-06	2.79508E-06	11110.6	938.05	3.12	326441.4	54673899
Los Angeles (SC)	2022	OFF - Military - Generator (Military)	Aggregate	750	Diesel	3.63917E-06	4.33091E-06	5.24041E-06	3.10635E-05	4.59173E-05	0.017814581	1.42587E-06	1.3118E-06	1.79121E-07	1.47834E-07	587.65	25.55	0.14	13669.25	6101369
Los Angeles (SC)	2022	OFF - Military - Hydraulic unit	Aggregate	100	Diesel	3.81026E-05	4.53452E-05	5.48677E-05	0.000622567	0.000505939	0.106183944	2.53794E-05	2.33491E-05	1.24559E-06	8.86087E-07	3522.25	1084.05	3.61	102984.75	141251
Los Angeles (SC)	2022	OFF - Military - Lift (Military)	Aggregate	100	Diesel	1.13739E-06	1.35359E-06	1.63784E-06	1.85841E-05	1.51027E-05	0.00316967	7.57594E-07	6.96987E-07	3.71819E-08	2.57103E-08	102.2	25.55	0.14	2427.25	4146307
Los Angeles (SC)	2022	OFF - Military - Light	Aggregate	50	Diesel	2.72152E-06	3.23884E-06	0.000003919	2.77084E-05	2.81296E-05	0.004170618	1.06439E-06	9.79234E-07	5.39157E-08	3.21379E-08	127.75	62.05	0.25	3102.5	34153523
Los Angeles (SC)	2022	OFF - Military - Other tactical support equipment	Aggregate	50	Diesel	5.44305E-07	6.47768E-07	7.83799E-07	5.54169E-06	5.62592E-06	0.000834124	2.12877E-07	1.95847E-07	1.07831E-08	0	0	0	0	0	3535330
Los Angeles (SC)	2022	OFF - Military - Other tactical support equipment	Aggregate	100	Diesel	7.56664E-06	9.00493E-06	0.000010896	0.000123633	0.000100472	0.021086646	0.00000504	4.6368E-06	2.47357E-07	1.76299E-07	700.8	255.5	0.85	20184.5	9767132
Los Angeles (SC)	2022	OFF - Military - Other tactical support equipment	Aggregate	175	Diesel	1.06744E-05	1.27034E-05	1.53711E-05	0.000202126	0.000130108	0.039504096	5.72171E-06	5.26397E-06	4.44489E-07	3.30561E-07	1314	255.5	0.85	37814	63860258
Los Angeles (SC)	2022	OFF - Military - Other tactical support equipment	Aggregate	300	Diesel	4.58553E-06	5.45716E-06	6.60316E-06	3.87647E-05	5.99646E-05	0.021820674	1.78321E-06	1.64055E-06	2.4552E-07	1.8089E-07	719.05	87.6	0.32	19096.8	42958.5
Los Angeles (SC)	2022	OFF - Military - Other tactical support equipment	Aggregate	600	Diesel	1.82092E-06	2.16704E-06	2.62212E-06	1.57083E-05	2.27872E-05	0.009008536	7.13754E-07	6.56653E-07	8.84217E-08	7.43763E-08	295.65	25.55	0.14	6898.5	1287983
Los Angeles (SC)	2022	OFF - Military - Other tactical support equipment	Aggregate	750	Diesel	2.13335E-06	2.53886E-06	3.07202E-06	0.00001821	2.69176E-05	0.010443228	8.35869E-07	7.68999E-07	1.05004E-07	8.63132E-08	343.1	0	0	0	2898734
Los Angeles (SC)	2022	OFF - Military - Pressure Washers	Aggregate	175	Diesel	2.05554E-06	2.44626E-06	2.95998E-06	3.89229E-05	2.50546E-05	0.007607208	1.10181E-06	1.01367E-06	8.55941E-08	6.33575E-08	251.85	58.4	0.16	8876.8	9375822
Los Angeles (SC)	2022	OFF - Military - Pump (Military)	Aggregate	50	Diesel	2.46244E-05	0.000029305	3.54591E-05	0.000250706	0.000254517	0.037735757	9.63056E-06	8.86011E-06	4.87829E-07	3.17706E-07	1262.9	938.05	3.12	36583.95	3146517
Los Angeles (SC)	2022	OFF - Military - Pump (Military)	Aggregate	100	Diesel	2.69382E-05	3.20587E-05	0.000038791	0.00044015	0.000357695	0.075071128	0.000017943	1.65076E-05	8.80623E-07	6.27148E-07	2492.95	730	2.43	73000	4138036
Los Angeles (SC)	2022	OFF - Military - Start Cart	Aggregate	100	Diesel	5.98627E-07	7.12415E-07	8.62023E-07	9.78111E-06	7.94877E-06	0.001668247	3.98734E-07	3.66835E-07	1.95694E-08	1.46916E-08	58.4	0	0	0	1812682
Los Angeles (SC)	2022	OFF - Military - Start Cart	Aggregate	600	Diesel	9.54297E-07	1.13569E-06	1.37419E-06	8.23231E-06	1.19422E-05	0.00472114	3.7406E-07	3.44135E-07	4.63395E-08	3.76472E-08	149.65	0	0	0	15993360
Los Angeles (SC)	2022	OFF - Military - Test Stand	Aggregate	100	Diesel	1.81743E-05	2.16289E-05	0.000026171	0.000296954	0.000241325	0.050647988	1.21056E-05	1.11371E-05	5.94127E-07	4.23302E-07	1682.65	532.9	1.78	49026.8	8700.293
Los Angeles (SC)	2022	OFF - Military - Test Stand	Aggregate	175	Diesel	1.28021E-06	1.52355E-06	1.8435E-06	2.42415E-05	1.56042E-05	0.004737822	6.86218E-07	6.31321E-07	5.33086E-08	3.85655E-08	153.3	25.55	0.14	3628.1	728504.5
Los Angeles (SC)	2022	OFF - Military - Test Stand	Aggregate	300	Diesel	2.14097E-05	2.54793E-05	3.08299E-05	0.000180991	0.000279972	0.101879868	8.32573E-06	7.65967E-06	1.14632E-06	8.47522E-07	3368.95	500.05	1.67	98509.85	1396816
Los Angeles (SC)	2022	OFF - Military - Test Stand	Aggregate	600	Diesel	1.38795E-05	1.65177E-05	1.99864E-05	0.000119732	0.000173689	0.06866506	5.44039E-06	5.00516E-06	6.7397E-07	5.71136E-07	2270.3	189.8	0.65	65101.4	2438789
Los Angeles (SC)	2022	OFF - Military - Welder	Aggregate	50	Diesel	8.00128E-06	9.52219E-06	1.15218E-05	8.14628E-05	0.000082701	0.012261618	3.12929E-06	2.87895E-06	1.58512E-07	1.02841E-07	408.8	335.8	1.13	11753	1798769
Los Angeles (SC)	2022	OFF - Military - Welder	Aggregate	100	Diesel	2.15266E-05	2.56185E-05	3.09983E-05	0.000351729	0.000285838	0.059990173	1.43385E-05	1.31914E-05	7.03716E-07	5.02269E-07	1996.55	938.05	3.12	58159.1	3402395
Los Angeles (SC)	2022	OFF - Oil Drilling - Compressors (Workover)	Aggregate	25	Diesel	2.77353E-06	3.30073E-06	3.99388E-06	1.36575E-05	2.51614E-05	0.003199756	1.06985E-06	9.8426E-07	4.05988E-08	2.57103E-08	102.2	160.6	0.16	3854.4	1725365
Los Angeles (SC)	2022	OFF - Oil Drilling - Generator (Drilling)	Aggregate	50	Diesel	2.29923E-06	2.73627E-06	3.31089E-06	2.00375E-05	1.56408E-05	0.002074605	7.19086E-07	6.61559E-07	2.68195E-08	1.46916E-08	58.4	58.4	0	1927.2	984293.1
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	25	Diesel	8.56917E-07	1.03687E-06	1.23396E-06	1.46056E-05	9.90313E-06	0.001848787	4.92041E-08	4.52678E-08	1.70672E-08	1.50896E-08	59.98186794	82.99293074	0.052065829	2074.823269	47708.13
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	50	Diesel	8.34689E-05	0.000100997	0.000120195	0.000301473	0.000212999	0.017950726	2.80137E-05	2.57726E-05	1.63459E-07	1.46511E-07	582.3915438	477.5998455	0.416526629	20146.76823	153726.2
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	75	Diesel	6.09726E-06	7.37768E-06	8.78005E-06	7.92989E-05	0.000072048	0.01071673	4.32971E-06	3.98334E-06	9.88986E-08	8.74685E-08	347.6925115	191.0815909	0.208263314	13375.71136	142908
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	100	Diesel	3.86318E-05	4.67445E-05	5.56298E-05	0.000360894	0.000418515	0.04743643	3.01968E-05	2.77811E-05	4.37414E-07	3.8717E-07	1539.022727	685.186304	0.520658286	58646.79311	3342815
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	175	Diesel	0.000237034	0.000286812	0.00034133	0.002944053	0.00214903	0.445863547	0.00013362	0.000122931	4.11512E-06	3.63908E-06	14465.55176	3876.405069	3.228081371	554162.4208	2135723
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	300	Diesel	0.000199736	0.00024168	0.00028762	0.001347869	0.002110615	0.605715977	6.85052E-05	6.30248E-05	5.59415E-06	4.94377E-06	19651.7878	3236.880496	2.499159771	754536.8396	30062721
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	600	Diesel	0.000283859	0.000343469	0.000408757	0.001808494	0.00344447	0.845175304	0.000111658	0.000102725	7.80555E-06	6.89821E-06	27420.78194	2406.482597	1.770238171	1049692.653	3083178
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	750	Diesel	8.29958E-05	0.000100425	0.000119514	0.000411246	0.00079723	0.191065756	3.32812E-05	3.06187E-05	1.76401E-06	1.55945E-06	6198.918018	372.7392667	0.260329143	237633.1275	2265433
Los Angeles (SC)	2022	Oil Drilling - Drill Rig (Mobile)	Aggregate	9999	Diesel	6.90504E-05	8.35509E-05	9.94325E-05	0.000331975	0.001400371	0.160004824	3.53572E-05	3.25287E-05	1.47725E-06	1.30594E-06	5191.180302	259.6002213	0.156197486	199652.3031	14750
Los Angeles (SC)	2022	Oil Drilling - Workover Rig (Mobile)	Aggregate	25	Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5588186
Los Angeles (SC)	2022	Oil Drilling - Workover Rig (Mobile)	Aggregate	75	Diesel	5.52392E-07	6.68394E-07	7.95444E-07	5.03799E-06	7.18548E-06	0.000642616	5.30038E-07	4.87635E-07	5.92473E-09	5.24495E-09	20.84897308	10.83726027	0.054186301	801.9572603	13086203
Los Angeles (SC)	2022	Oil Drilling - Workover Rig (Mobile)	Aggregate	175	Diesel	8.22534E-06	9.95266E-06	1.18445E-05	9.97324E-05	8.22011E-05	0.014805731	5.93356E-06	5.45888E-06	1.3664E-07	1.20842E-07	480.3556365	108.8602795	0.108372603	18477.7997	25302745
Los Angeles (SC)	2022	Oil Drilling - Workover Rig (Mobile)	Aggregate	300	Diesel	8.91796E-05	0.000107907	0.000128419	0.000551078	0.000794018	0.211560081	0.000029594	2.72265E-05	1.9533E-06	1.72672E-06	6863.833828	1197.896564	2.167452055	260835.1617	51693745
Los Angeles (SC)	2022	Oil Drilling - Workover Rig (Mobile)	Aggregate	600	Diesel	0.003910693	0.004731939	0.005631398	0.026447713	0.036350861	12.86212516	0.001171768	0.001078027	0.000118799	0.000104979	417297.4858	40802.88098	29.20641644	16058091.23	79719931
Los Angeles (SC)	2022	Oil Drilling - Workover Rig (Mobile)	Aggregate	750	Diesel	3.61584E-05	4.37517E-05	5.20681E-05	0.000210267	0.000291226	0.103006907	1.49172E-05	1.37238E-05	9.51265E-07	8.40729E-07	3341.945655	188.5141425	0.108372603	128540.4732	11550432
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	50	Diesel	0.000017119	2.07139E-05	2.46513E-05	0.000366866	0.00036052	0.058646075	0.000011059	1.01743E-05	5.41698E-07	4.78661E-07	1902.707308	2628.408003	6.532392755	110573.036	1.47E+08
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	75	Diesel	0.000209161	0.000253084	0.000301191	0.004142991	0.003479146	0.632599521	0.00010825	0.00009959	5.84242E-06	5.16319E-06	20523.99477	20151.12802	50.08167779	1325968.608	59957.11
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	100	Diesel	0.000474301	0.000573904	0.000682994	0.013572607	0.00745153	2.031715975	0.000528932	0.000486617	0.00001877	1.65826E-05	65916.78726	50640.66086	125.8574337	4258605.189	3089960
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	175	Diesel	0.00065779	0.000795926	0.000947217	0.023579349	0.009338023	4.262055898	0.000343423	0.00031595	3.93851E-05	3.47863E-05	138277.7098	65534.97288	162.874326	8933538.738	1639763
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	300	Diesel	0.000410497	0.000496702	0.000591116	0.004863171	0.004335135	2.556211401	0.000166295	0.000152991	2.36211E-05	2.08635E-05	82933.46374	19099.76482	47.46872068	5357980.777	8987954
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	600	Diesel	0.000640343	0.000774815	0.000922093	0.006693631	0.007504997	3.498224244	0.000285608	0.000262759	3.23236E-05	0.000028552	113496.033	15244.76642	37.88787798	7332499.277	5973770
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	750	Diesel	0.000263989	0.000319427	0.000380145	0.002180164	0.004695179	1.145400995	0.000149013	0.000137092	1.05819E-05	9.34861E-06	37161.27384	3504.544004	8.709857006	2400832.931	4684054
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Compressor	Aggregate	9999	Diesel	1.15204E-05	1.39397E-05	1.65894E-05	0.000143713	0.000232283	0.074494809	2.69988E-06	2.48389E-06	6.88396E-07	6.08017E-07	2416.902027	175.2272002	0.43549285	156145.8308	3362956
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	50	Diesel	9.52313E-05	0.00011523	0.000137133	0.001338408	0.00097566	0.137828393	4.03782E-05	3.71479E-05	1.27143E-06	1.12494E-06	4471.690415	5261.429728	3.919435653	259865.7099	3135630
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	75	Diesel	0.002662581	0.003221723	0.003834116	0.038903586	0.029395826	5.273832985	0.000782815	0.000720189	4.86793E-05	4.30443E-05	171103.7031	167196.5447	124.5509552	11054287.51	9951.916
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	100	Diesel	0.002697826	0.003264369	0.003884869	0.061899504	0.030882702	8.406805937	0.00240133	0.002209224	7.76442E-05	6.86152E-05	272749.5602	182396.2306	135.8737693	17621196.97	1431086
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	175	Diesel	0.005777977	0.006991352	0.008320286	0.115261042	0.052569949	18.22620959	0.002593305	0.002385841	0.000168337	0.00014876	591329.2974	272425.1392	202.9396682	38203288.1	2196388
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	300	Diesel	0.006837216	0.008273031	0.009845591	0.045503114	0.053743777	19.93444712	0.002326252	0.002140152	0.000184099	0.000162702	646751.183	168365.7513	125.4219409	41783862.02	3717240
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	600	Diesel	0.011196376	0.013547615	0.016122781	0.083847561	0.072660681	40.99885681	0.003275955	0.003013879	0.000378719	0.000334627	1330162.757	213964.8089	159.3903832	85936197.05	5611089
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	750	Diesel	0.003581367	0.004333454	0.005157168	0.021839505	0.028623607	10.24798025	0.001390944	0.001279669	9.46402E-05	8.36426E-05	332484.4329	30983.97506	23.08112107	21480414.78	7959145
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Generator	Aggregate	9999	Diesel	0.022317271	0.027003898	0.032136871	0.145139826	0.347272103	67.00417957	0.009887614	0.009096605	0.000618817	0.000546879	2173876.814	111074.6276	82.74364156	140444998.4	808493.7
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	50	Diesel	1.51621E-05	1.83461E-05	2.18334E-05	0.000298564	0.000306314	0.050108851	9.72815E-06	8.9499E-06	4.62826E-07	4.08982E-07	1625.726491	2047.430212	6.532392755	94476.70335	10806488
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	75	Diesel	0.000316234	0.000382643	0.000455377	0.008353344	0.00682921	1.351392385	0.000150019	0.000138017	1.24848E-05	1.10299E-05	43844.43763	39583.65077	126.2929266	2832603.914	89790702
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	100	Diesel	0.000606803	0.000734232	0.000873796	0.019272824	0.012127637	3.041442568	0.000763382	0.000702311	2.81014E-05	2.48238E-05	98676.25456	70977.58068	226.4562822	6375055.993	10020252
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	175	Diesel	0.001700664	0.002057803	0.002448956	0.054208552	0.027242517	9.837405131	0.001041078	0.000957792	9.09007E-05	8.02916E-05	319163.7755	148097.452	472.5097426	20619823.37	231975.8
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	300	Diesel	0.000636326	0.000769954	0.000916309	0.006528073	0.007996559	3.301424336	0.00029493	0.000271336	3.05042E-05	2.69458E-05	107111.0767	29073.50901	92.75997712	6919994.224	6809462
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	600	Diesel	0.000803037	0.000971675	0.001156373	0.0081956	0.009952974	4.341756261	0.000347872	0.000320043	4.01176E-05	3.54368E-05	140863.5003	20474.30212	65.32392755	9100595.739	56090178
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	750	Diesel	0.000354384	0.000428805	0.000510313	0.003568171	0.005400522	1.901922167	0.000204182	0.000187848	1.75736E-05	1.55232E-05	61705.7701	5732.804594	18.29069971	3986549.157	5806056
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Other Portable Equipment	Aggregate	9999	Diesel	0.00383496	0.004640302	0.005522343	0.032151567	0.093064271	16.78073343	0.001991417	0.001832103	0.000155031	0.000136962	544432.4155	14468.50683	46.16224213	35173478.65	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	50	Diesel	3.74022E-06	4.52566E-06	5.38591E-06	6.38568E-05	5.92859E-05	0.010148438	2.1435E-06	1.97202E-06	9.37151E-08	8.28302E-08	329.254887	410.3614391	1.306478551	19134.16337	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	75	Diesel	0.000206798	0.000250225	0.000297788	0.004803434	0.00408848	0.76436972	0.000126991	0.000116832	7.06077E-06	6.23868E-06	24799.13377	22569.87915	71.8563203	1602167.28	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	100	Diesel	0.00031145	0.000376855	0.000448488	0.009263085	0.006291224	1.465582919	0.000377416	0.000347223	1.35407E-05	1.19619E-05	47549.22375	33239.27657	105.8247626	3071954.496	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	175	Diesel	0.000438516	0.000530605	0.000631464	0.014115326	0.006921256	2.55885341	0.000271031	0.000249349	2.36447E-05	0.000020885	83019.18082	38437.18813	122.3734909	5363518.595	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	300	Diesel	0.00028199	0.000341208	0.000406066	0.003578584	0.003027055	1.887325129	0.000108286	9.96227E-05	1.74408E-05	1.54041E-05	61232.1853	16414.45757	52.25914204	3955952.844	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	600	Diesel	0.000579443	0.000701126	0.000834398	0.006560378	0.008750489	3.569898709	0.000330547	0.000304103	3.29881E-05	0.000029137	115821.4321	18329.47761	58.35604194	7482733.49	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	750	Diesel	0.000291103	0.000352235	0.000419189	0.0033206	0.005339611	1.81030663	0.00021599	0.00019871	1.67284E-05	1.47755E-05	58733.40492	5471.485855	17.41971401	3794517.199	
Los Angeles (SC)	2022	Portable Equipment - Non-Rental Pump	Aggregate	9999	Diesel	0.000170661	0.0002065	0.000245752	0.00195637	0.003900492	1.032751127	6.56542E-05	6.04019E-05	9.54318E-06	8.42918E-06	33506.47293	1641.445757	5.225914204	2164711.683	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	50	Diesel	1.42836E-05	1.72832E-05	2.05684E-05	0.00032933	0.000259193	0.055649044	3.89529E-06	3.58367E-06	5.14075E-07	4.542E-07	1805.47196	2066.528963	3.919435653	104922.3469	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	75	Diesel	5.95618E-05	7.20697E-05	8.57689E-05	0.001070941	0.000861911	0.16129433	1.59057E-05	1.46333E-05	1.48946E-06	1.31646E-06	5233.016905	5281.129571	10.01633556	338083.1177	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	100	Diesel	3.38774E-05	4.09917E-05	4.87835E-05	0.001014445	0.000532682	0.149943568	3.61187E-05	3.32292E-05	1.38529E-06	1.22382E-06	4864.753928	3673.829267	6.967885605	314291.2023	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	175	Diesel	0.000546983	0.00066185	0.000787656	0.019302514	0.008579985	3.507385502	0.000258595	0.000237907	3.24111E-05	2.86268E-05	113793.2599	52581.68138	99.72786272	7351701.855	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	300	Diesel	0.000318012	0.000384795	0.000457937	0.004284269	0.002195241	2.240867462	8.94536E-05	8.22973E-05	2.07084E-05	1.82897E-05	72702.47694	16302.61737	30.91999237	4696999.936	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	600	Diesel	0.00493789	0.005974847	0.007110562	0.060092708	0.046004644	31.54274643	0.001880109	0.0017297	0.00029148	0.000257448	1023369.67	118940.2225	225.5852965	66115591.59	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	750	Diesel	0.000559743	0.000677289	0.00080603	0.006315147	0.004889496	3.234967211	0.000256282	0.000235779	2.98921E-05	2.64034E-05	104954.9485	10562.25914	20.03267111	6780695.886	
Los Angeles (SC)	2022	Portable Equipment - Rental Compressor	Aggregate	9999	Diesel	0.000393262	0.000475847	0.000566297	0.004494076	0.009126995	2.376963101	0.000186614	0.000171685	2.19644E-05	1.94005E-05	77117.95004	4592.286584	8.709857006	4982265.001	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	50	Diesel	1.22397E-05	0.00001481	1.76252E-05	0.000176796	0.000108407	0.017205109	6.04425E-06	5.56071E-06	1.58703E-07	1.40426E-07	558.2008152	626.1340044	0.43549285	32439.01918	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	75	Diesel	0.002708138	0.003276847	0.003899719	0.042372939	0.031705872	5.863299595	0.000825788	0.000759725	5.41279E-05	4.78555E-05	190228.2981	182831.1293	127.1639123	12289846.8	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	100	Diesel	0.003964799	0.004797407	0.005709311	0.100071277	0.047630315	13.73045294	0.003687617	0.003392607	0.000126826	0.000112066	445469.4243	297413.6521	206.8591039	28779897.81	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	175	Diesel	0.006904409	0.008354335	0.009942349	0.165678028	0.059978329	26.54843124	0.002291328	0.002108021	0.000245246	0.000216685	861334.6136	373802.0006	259.9892316	55647191.05	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	300	Diesel	0.016610054	0.020098165	0.023918477	0.118798755	0.119392605	54.23869387	0.005024817	0.004622831	0.000500965	0.000442689	1759714.689	443929.0091	308.7644309	113687732.9	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	600	Diesel	0.022354977	0.027049522	0.032191167	0.171261828	0.138603693	83.64464408	0.006698068	0.006162222	0.000772666	0.000682696	2713758.359	413248.4429	287.4252812	175324464.5	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	750	Diesel	0.005162097	0.006246137	0.007433419	0.02575241	0.058675649	12.11907472	0.00225853	0.002077848	0.000111892	9.89143E-05	393190.0324	36941.90626	25.69407817	25402347.14	
Los Angeles (SC)	2022	Portable Equipment - Rental Generator	Aggregate	9999	Diesel	0.046710127	0.056519254	0.067262583	0.313035837	0.776003835	153.7538349	0.021819167	0.020073634	0.001420129	0.001254918	4988373.843	250453.6018	174.1971401	322277762.8	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	50	Diesel	3.51106E-05	4.24839E-05	5.05593E-05	0.000578332	0.000460209	0.069936846	1.53087E-05	0.000014084	6.45548E-07	5.70815E-07	2269.023958	3249.146532	2.612957102	131860.9892	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	75	Diesel	0.00107666	0.001302759	0.001550391	0.0215655	0.016205103	3.242082693	0.000239049	0.000219925	2.99424E-05	2.64614E-05	105185.8024	91517.62731	73.5982917	6795610.385	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	100	Diesel	0.00044692	0.000540774	0.000643565	0.012879265	0.004856429	1.720490914	0.000402244	0.000370064	1.58934E-05	1.40424E-05	55819.43294	39531.2828	31.79097807	3606257.778	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	175	Diesel	0.00211392	0.002557843	0.003044045	0.056266295	0.02017261	9.430442498	0.000744564	0.000684999	8.71257E-05	0.00007697	305960.3211	144045.4962	115.8410982	19766803.95	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	300	Diesel	0.002037591	0.002465485	0.002934131	0.014125976	0.014346688	6.267865921	0.000592196	0.00054482	5.78884E-05	5.11575E-05	203354.007	53069.39335	42.67829933	13137843.41	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	600	Diesel	0.001456796	0.001762723	0.002097786	0.010091458	0.010458287	4.91465578	0.000482917	0.000444284	4.53947E-05	4.01128E-05	159450.5943	24910.12341	20.03267111	10301429.37	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	750	Diesel	0.00084891	0.001027181	0.00122243	0.007069072	0.006747702	3.528518865	0.000379437	0.000349082	3.25974E-05	2.87993E-05	114478.9086	10830.48844	8.709857006	7395998.719	
Los Angeles (SC)	2022	Portable Equipment - Rental Other Portable Equipment	Aggregate	9999	Diesel	0.001128526	0.001365516	0.001625077	0.00676393	0.016489339	3.29000052	0.000449133	0.000413202	3.03838E-05	2.68525E-05	106740.4436	5415.24422	4.354928503	6896049.181	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	50	Diesel	0.000012729	1.54021E-05	1.83298E-05	0.000125376	0.000105592	0.011608391	7.54763E-06	6.94382E-06	1.06943E-07	9.47461E-08	376.621473	422.4564075	0.43549285	21886.80283	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	75	Diesel	0.000445708	0.000539307	0.00064182	0.009757616	0.007856819	1.501539731	0.000265224	0.000244006	1.38691E-05	1.22554E-05	48715.80291	42245.64075	43.54928503	3147322.248	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	100	Diesel	0.000663496	0.00080283	0.000955434	0.016714737	0.007800939	2.304518905	0.000626196	0.0005761	2.12865E-05	1.88092E-05	74767.5779	55764.24578	57.48505624	4830417.385	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	175	Diesel	0.001062628	0.00128578	0.001530184	0.024394717	0.010098546	3.900244229	0.000463807	0.000426702	3.60278E-05	3.18333E-05	126539.1287	54919.33297	56.61407054	8175158.595	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	300	Diesel	0.001355703	0.001640401	0.001952212	0.012272888	0.009809227	5.887330535	0.000388251	0.000357191	5.43906E-05	4.80516E-05	191007.9555	44780.37919	46.16224213	12340217.17	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	600	Diesel	0.001581523	0.001913643	0.002277393	0.016186196	0.011357496	8.350983414	0.000533823	0.000491117	7.71615E-05	6.81596E-05	270938.4599	44780.37919	46.16224213	17504189.43	
Los Angeles (SC)	2022	Portable Equipment - Rental Pump	Aggregate	750	Diesel	0.000282006	0.000341228	0.000406089	0.001756676	0.002664594	0.848296855	0.000120112	0.000110503	7.83446E-06	6.92368E-06	27522.05722	2534.738445	2.612957102	1778083.862	
Los Angeles (SC)	2022	TRU - Instate Genset TRU	Aggregate	50	Diesel	0.006766677	0.00818768	0.009744016	0.128999742	0.095751108	2.632509878	0.000428697	0.000394402	2.42991E-05	2.16303E-05	1671.021909	1006672.933	1289.414991	31710197.4	
Los Angeles (SC)	2022	TRU - Instate Trailer TRU	Aggregate	50	Diesel	0.132925967	0.160840421	0.191413393	1.980357934	1.294169214	30.49023007	0.020470879	0.018833208	0.0002798	0.000250526	19354.09355	7749377.7	5849.103547	263478841.8	
Los Angeles (SC)	2022	TRU - Instate Truck TRU	Aggregate	25	Diesel	0.017629925	0.021332209	0.025387091	0.172620763	0.207026353	4.14226772	0.008399205	0.007727269	3.80253E-05	3.40354E-05	2629.361496	2085325.724	1532.20112	29403092.72	
Los Angeles (SC)	2022	TRU - Instate Van TRU	Aggregate	25	Diesel	0.000408145	0.000493856	0.000587729	0.003996292	0.004792805	0.095896397	0.000194447	0.000178892	8.80312E-07	7.87943E-07	60.87155928	75633.5755	55.57206135	680702.1795	
Los Angeles (SC)	2022	TRU - Out-of-State Genset TRU	Aggregate	50	Diesel	0.004243335	0.005134436	0.006110403	0.081089479	0.060294829	1.658816139	0.000269405	0.000247853	1.53121E-05	1.36298E-05	1052.956395	634332.0198	5130.312871	19981458.62	
Los Angeles (SC)	2022	TRU - Out-of-State Trailer TRU	Aggregate	50	Diesel	0.070339153	0.085110375	0.10128838	1.138234409	0.750859741	19.04654266	0.005704703	0.005248327	0.000175166	0.000156498	12090.05533	4840857.303	23071.06568	164589148.3	
Los Angeles (SC)	2022	TRU - Railcar TRU	Aggregate	50	Diesel	0.007281008	0.00881002	0.010484652	0.117821924	0.077723656	1.971562527	0.00059051	0.000543269	1.81319E-05	1.61996E-05	1251.476473	501091.092	1554.108154	17037097.13	

Existing Land Use: Passenger Vehicles

EXISTING LAND USE

Vehicle type	Fleet percent	VMT	
	Warehousing	Warehousing	Total
LDA	56.04%	211,949	211,949
LDT1	6.34%	23,987	23,987
LDT2	19.14%	72,373	72,373
MDV	13.07%	49,426	49,426
LHD1	2.35%	8,880	8,880
LHD2	0.61%	2,292	2,292
MHD	0.00%	0	0
HHD	0.00%	0	0
OBUS	0.00%	0	0
UBUS	0.00%	0	0
MCY	2.45%	9,279	9,279
SBUS	0.00%	0	0
MH	0.00%	0	0
	100.00%	378,186	378,186

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,186	378,186
Total	88.24	88.24	88.24	378,186	378,186

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent	
LDA	97.06%	0.88%	0.00%	2.06%	
LDT1	99.12%	0.04%	0.00%	0.84%	
LDT2	98.39%	0.72%	0.00%	0.89%	
MDV	96.93%	2.32%	0.00%	0.75%	
LHD1	58.29%	41.71%	0.00%	0.00%	
LHD2	36.96%	63.04%	0.00%	0.00%	
MHD	16.07%	83.93%	0.00%	0.00%	<< Equal to T6 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
HHD	0.08%	98.36%	1.56%	0.00%	<< Equal to T7 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
OBUS	40.92%	59.08%	0.00%	0.00%	<< Motor coach, all other buses, and OBUS (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
UBUS	6.98%	0.25%	92.54%	0.23%	
MCY	100.00%	0.00%	0.00%	0.00%	
SBUS	33.67%	66.33%	0.00%	0.00%	
MH	75.55%	24.45%	0.00%	0.00%	

PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	205,712	30.28	6,793	1,873	47.29	40	0	0.00	0	4,364	3.04	1,435
LDT1	23,776	26.12	910	9	21.78	0	0	0.00	0	202	3.04	66
LDT2	71,207	24.33	2,927	520	34.76	15	0	0.00	0	646	3.04	212
MDV	47,906	19.78	2,421	1,147	26.88	43	0	0.00	0	373	3.04	123
LHD1	5,176	10.44	496	3,704	21.76	170	0	0.00	0	0	3.04	0
LHD2	847	9.10	93	1,445	19.60	74	0	0.00	0	0	3.04	0
MHD	0	5.04	0	0	10.52	0	0	0.00	0	0	3.04	0
HHD	0	4.10	0	0	6.59	0	0	2.24	0	0	3.04	0
OBUS	0	4.99	0	0	8.78	0	0	0.00	0	0	3.04	0
UBUS	0	4.24	0	0	5.66	0	0	3.93	0	0	3.04	0
MCY	9,279	35.70	260	0	0.00	0	0	0.00	0	0	3.04	0
SBUS	0	9.19	0	0	7.63	0	0	0.00	0	0	3.04	0
MH	0	5.14	0	0	10.54	0	0	0.00	0	0	3.04	0
	363,903		**13,900**	**8,698**		**342**	**0**		**0**	**5,584**		**1,836**

Existing Land Use: Trucks

EXISTING LAND USE

Vehicle type	Fleet percent	VMT	
	Warehousing	Warehousing	Total
LDA	0.00%	0	0
LDT1	0.00%	0	0
LDT2	0.00%	0	0
MDV	0.00%	0	0
LHD1	0.00%	0	0
LHD2	0.00%	0	0
MHD	50.00%	160,647	160,647
HHD	50.00%	160,647	160,647
OBUS	0.00%	0	0
UBUS	0.00%	0	0
MCY	0.00%	0	0
SBUS	0.00%	0	0
MH	0.00%	0	0
	100.00%	321,294	321,294

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,294	321,294
Total	22.06	22.06	22.06	321,294	321,294

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent	
MHD	0.00%	100.00%	0.00%	0.00%	<--Assumes 100% diesel
HHD	0.00%	100.00%	0.00%	0.00%	<--Assumes 100% diesel

PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	0	30.28	0	0	47.29	0	0	0.00	0	0	3.04	0
LDT1	0	26.12	0	0	21.78	0	0	0.00	0	0	3.04	0
LDT2	0	24.33	0	0	34.76	0	0	0.00	0	0	3.04	0
MDV	0	19.78	0	0	26.88	0	0	0.00	0	0	3.04	0
LHD1	0	10.44	0	0	21.76	0	0	0.00	0	0	3.04	0
LHD2	0	9.10	0	0	19.60	0	0	0.00	0	0	3.04	0
MHD	0	5.04	0	160,647	10.52	15,269	0	0.00	0	0	3.04	0
HHD	0	4.10	0	160,647	6.59	24,368	0	2.24	0	0	3.04	0
OBUS	0	4.99	0	0	8.78	0	0	0.00	0	0	3.04	0
UBUS	0	4.24	0	0	5.66	0	0	3.93	0	0	3.04	0
MCY	0	35.70	0	0	0.00	0	0	0.00	0	0	3.04	0
SBUS	0	9.19	0	0	7.63	0	0	0.00	0	0	3.04	0
MH	0	5.14	0	0	10.54	0	0	0.00	0	0	3.04	0
	0		**0**	**321,294**		**39,637**	**0**		**0**	**0**		**0**

Proposed Project - Passenger Cars

PROPOSED CONDITIONS

Vehicle type	Fleet percent	VMT	Fleet percent	VMT	
	Warehousing	Warehousing	Manufacturing	Manufacturing	Total
LDA	56.04%	354,933	56.04%	123,499	478,432
LDT1	6.34%	40,169	6.34%	13,977	54,146
LDT2	19.14%	121,197	19.14%	42,171	163,368
MDV	13.07%	82,769	13.07%	28,799	111,568
LHD1	2.35%	14,871	2.35%	5,174	20,046
LHD2	0.61%	3,838	0.61%	1,335	5,173
MHD	0.00%	0	0.00%	0	0
HHD	0.00%	0	0.00%	0	0
OBUS	0.00%	0	0.00%	0	0
UBUS	0.00%	0	0.00%	0	0
MCY	2.45%	15,538	2.45%	5,407	20,945
SBUS	0.00%	0	0.00%	0	0
MH	0.00%	0	0.00%	0	0
	100.00%	633,315	100.00%	220,362	853,677

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	49.76	49.76	49.76	220,362	220,362
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		
Unrefrigerated Warehouse-No Rail	147.77	147.77	147.77	633,315	633,315
Total	197.54	197.54	197.54	853,677	853,677

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.0000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.0000

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent	
LDA	97.06%	0.88%	0.00%	2.06%	
LDT1	99.12%	0.04%	0.00%	0.84%	
LDT2	98.39%	0.72%	0.00%	0.89%	
MDV	96.93%	2.32%	0.00%	0.75%	
LHD1	58.29%	41.71%	0.00%	0.00%	
LHD2	36.96%	63.04%	0.00%	0.00%	
MHD	16.07%	83.93%	0.00%	0.00%	<< Equal to T6 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
HHD	0.08%	98.36%	1.56%	0.00%	<< Equal to T7 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
OBUS	40.92%	59.08%	0.00%	0.00%	<< Motor coach, all other buses, and OBUS (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
UBUS	6.98%	0.25%	92.54%	0.23%	
MCY	100.00%	0.00%	0.00%	0.00%	
SBUS	33.67%	66.33%	0.00%	0.00%	
MH	75.55%	24.45%	0.00%	0.00%	

PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	464,353	30.28	15,333	4,228	47.29	89	0	0.00	0	9,851	3.07	3,213
LDT1	53,669	26.12	2,055	21	21.78	1	0	0.00	0	456	3.07	149
LDT2	160,735	24.33	6,608	1,174	34.76	34	0	0.00	0	1,458	3.07	476
MDV	108,138	19.78	5,466	2,589	26.88	96	0	0.00	0	841	3.07	274
LHD1	11,685	10.44	1,119	8,361	21.76	384	0	0.00	0	0	3.07	0
LHD2	1,912	9.10	210	3,261	19.60	166	0	0.00	0	0	3.07	0
MHD	0	5.04	0	0	10.52	0	0	0.00	0	0	3.07	0
HHD	0	4.10	0	0	6.59	0	0	2.24	0	0	3.07	0
OBUS	0	4.99	0	0	8.78	0	0	0.00	0	0	3.07	0
UBUS	0	4.24	0	0	5.66	0	0	3.93	0	0	3.07	0
MCY	20,945	35.70	587	0	0.00	0	0	0.00	0	0	3.07	0
SBUS	0	9.19	0	0	7.63	0	0	0.00	0	0	3.07	0
MH	0	5.14	0	0	10.54	0	0	0.00	0	0	3.07	0
	821,437		**31,377**	**19,634**		**771**	**0**		**0**	**12,606**		**4,112**

Proposed Project - Trucks

PROPOSED CONDITIONS

Vehicle type	Fleet percent	VMT	Fleet percent	VMT	
	Warehousing	Warehousing	Manufacturing	Manufacturing	Total
LDA	0.00%	0	0.00%	0	0
LDT1	0.00%	0	0.00%	0	0
LDT2	0.00%	0	0.00%	0	0
MDV	0.00%	0	0.00%	0	0
LHD1	0.00%	0	0.00%	0	0
LHD2	0.00%	0	0.00%	0	0
MHD	43.08%	204,426	43.08%	204,449	408,875
HHD	56.92%	270,135	56.92%	270,165	540,300
OBUS	0.00%	0	0.00%	0	0
UBUS	0.00%	0	0.00%	0	0
MCY	0.00%	0	0.00%	0	0
SBUS	0.00%	0	0.00%	0	0
MH	0.00%	0	0.00%	0	0
	100.00%	474,561	100.00%	474,614	949,175

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	32.59	32.59	32.59	474,614	474,614
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		
Unrefrigerated Warehouse-No Rail	32.59	32.59	32.59	474,561	474,561
Total	65.17	65.17	65.17	949,175	949,175

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent	
MHD	0.00%	100.00%	0.00%	0.00%	<---Assumes 100% diesel
HHD	0.00%	100.00%	0.00%	0.00%	<---Assumes 100% diesel

PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	0	30.28	0	0	47.29	0	0	0.00	0	0	3.07	0
LDT1	0	26.12	0	0	21.78	0	0	0.00	0	0	3.07	0
LDT2	0	24.33	0	0	34.76	0	0	0.00	0	0	3.07	0
MDV	0	19.78	0	0	26.88	0	0	0.00	0	0	3.07	0
LHD1	0	10.44	0	0	21.76	0	0	0.00	0	0	3.07	0
LHD2	0	9.10	0	0	19.60	0	0	0.00	0	0	3.07	0
MHD	0	5.04	0	408,875	10.52	38,861	0	0.00	0	0	3.07	0
HHD	0	4.10	0	540,300	6.59	81,958	0	2.24	0	0	3.07	0
OBUS	0	4.99	0	0	8.78	0	0	0.00	0	0	3.07	0
UBUS	0	4.24	0	0	5.66	0	0	3.93	0	0	3.07	0
MCY	0	35.70	0	0	0.00	0	0	0.00	0	0	3.07	0
SBUS	0	9.19	0	0	7.63	0	0	0.00	0	0	3.07	0
MH	0	5.14	0	0	10.54	0	0	0.00	0	0	3.07	0
	0		**0**	**949,175**		**120,819**	**0**		**0**	**0**		**0**

EMFAC Fuel Usage: Year 2022

Vehicle type	GAS VMT/day	GAS Gallons/day	GAS Miles/gallon	DSL VMT/day	DSL Gallons/day	DSL Miles/gallon	NG VMT/day	NG Gallons/day	NG Miles/gallon	ELEC VMT/day
All other buses	0	0	0.00	144,213	14,122	10.21	0	0	0.00	0
LDA	149,966,457	4,951,891	30.28	1,365,564	28,876	47.29	0	0	0.00	3,181,478
LDT1	17,043,180	652,540	26.12	6,627	304	21.78	0	0	0.00	144,752
LDT2	51,802,173	2,129,498	24.33	378,461	10,888	34.76	0	0	0.00	469,870
LHD1	3,836,225	367,280	10.44	2,744,971	126,149	21.76	0	0	0.00	0
LHD2	625,803	68,770	9.10	1,067,421	54,454	19.60	0	0	0.00	0
MCY	1,237,635	34,667	35.70	0	0	0.00	0	0	0.00	0
MDV	32,233,548	1,629,223	19.78	771,652	28,703	26.88	0	0	0.00	250,682
MH	190,935	37,177	5.14	61,785	5,859	10.54	0	0	0.00	0
Motor coach	0	0	0.00	91,142	13,998	6.51	0	0	0.00	0
OBUS	163,041	32,643	4.99	0	0	0.00	0	0	0.00	0
PTO	0	0	0.00	76,505	15,508	4.93	0	0	0.00	0
SBUS	55,608	6,053	9.19	109,536	14,360	7.63	0	0	0.00	0
T6	793,122	157,239	5.04	4,140,797	393,561	10.52	0	0	0.00	0
T7	5,769	1,407	4.10	6,735,541	1,021,710	6.59	106,828	47,783	2.24	0
UBUS	32,989	7,783	4.24	1,181	209	5.66	437,121	111,088	3.93	1,070
Total	**257,986,485**	**10,076,171**	**25.60**	**17,695,397**	**1,728,701**	**10.24**	**543,949**	**158,871**	**3.42**	**4,047,852**

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
Los Angeles (SC)	2022	All Other Buses	Aggregate	Aggregate	Diesel	2387.615771	144212.5891	20055.97247	14.12157342
Los Angeles (SC)	2022	LDA	Aggregate	Aggregate	Gasoline	3949334.32	149966456.8	18636854.28	4951.890616
Los Angeles (SC)	2022	LDA	Aggregate	Aggregate	Diesel	34750.74201	1365564.321	164528.3052	28.87579459
Los Angeles (SC)	2022	LDA	Aggregate	Aggregate	Electricity	78084.60157	3181477.948	389918.6908	0
Los Angeles (SC)	2022	LDT1	Aggregate	Aggregate	Gasoline	458115.2498	17043179.81	2118381.376	652.5401757
Los Angeles (SC)	2022	LDT1	Aggregate	Aggregate	Diesel	270.6503295	6627.200698	961.4710483	0.304298206
Los Angeles (SC)	2022	LDT1	Aggregate	Aggregate	Electricity	3508.68045	144752.0157	17546.16027	0
Los Angeles (SC)	2022	LDT2	Aggregate	Aggregate	Gasoline	1372144.276	51802172.9	6443902.5	2129.497975
Los Angeles (SC)	2022	LDT2	Aggregate	Aggregate	Diesel	8920.377392	378460.5711	44003.20424	10.88805719
Los Angeles (SC)	2022	LDT2	Aggregate	Aggregate	Electricity	14383.25646	469869.8144	72773.64326	0
Los Angeles (SC)	2022	LHD1	Aggregate	Aggregate	Gasoline	105423.6869	3836224.58	1570655.854	367.2799521
Los Angeles (SC)	2022	LHD1	Aggregate	Aggregate	Diesel	64097.22758	2744971.33	806262.4886	126.1492688
Los Angeles (SC)	2022	LHD2	Aggregate	Aggregate	Gasoline	17796.61867	625803.0177	265143.1013	68.76969502
Los Angeles (SC)	2022	LHD2	Aggregate	Aggregate	Diesel	25927.3097	1067421.343	326132.9395	54.45422002
Los Angeles (SC)	2022	MCY	Aggregate	Aggregate	Gasoline	177319.3254	1237635.154	354638.6508	34.66720507
Los Angeles (SC)	2022	MDV	Aggregate	Aggregate	Gasoline	921693.6708	32233548.24	4274374.135	1629.222502
Los Angeles (SC)	2022	MDV	Aggregate	Aggregate	Diesel	19516.67089	771652.3864	96044.41776	28.70279505
Los Angeles (SC)	2022	MDV	Aggregate	Aggregate	Electricity	7423.218148	250681.8433	37959.59904	0
Los Angeles (SC)	2022	MH	Aggregate	Aggregate	Gasoline	18777.11371	190934.9774	1878.462455	37.17660803
Los Angeles (SC)	2022	MH	Aggregate	Aggregate	Diesel	5865.304828	61785.30748	586.5304828	5.859423982
Los Angeles (SC)	2022	Motor Coach	Aggregate	Aggregate	Diesel	676.2916755	91141.88557	9873.858462	13.99760817
Los Angeles (SC)	2022	OBUS	Aggregate	Aggregate	Gasoline	3972.712037	163041.1007	79486.02243	32.64328018
Los Angeles (SC)	2022	PTO	Aggregate	Aggregate	Diesel	0	76505.4461	0	15.50775389
Los Angeles (SC)	2022	SBUS	Aggregate	Aggregate	Gasoline	1378.869452	55608.41612	5515.47781	6.053496228
Los Angeles (SC)	2022	SBUS	Aggregate	Aggregate	Diesel	3460.157096	109535.682	39929.73315	14.35975618
Los Angeles (SC)	2022	T6 Ag	Aggregate	Aggregate	Diesel	12.10479957	101.9666453	53.26111809	0.012181572
Los Angeles (SC)	2022	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	272.1638062	53846.97659	3973.591571	4.680155196
Los Angeles (SC)	2022	T6 CAIRP small	Aggregate	Aggregate	Diesel	144.6349106	7530.75419	2111.669694	0.699944378
Los Angeles (SC)	2022	T6 instate construction heavy	Aggregate	Aggregate	Diesel	2518.967495	168570.4564	11388.15411	16.56194729
Los Angeles (SC)	2022	T6 instate construction small	Aggregate	Aggregate	Diesel	8157.753968	433957.0754	36880.88852	42.40587222
Los Angeles (SC)	2022	T6 instate heavy	Aggregate	Aggregate	Diesel	10296.35106	1423092.141	118818.4637	128.9338909
Los Angeles (SC)	2022	T6 instate small	Aggregate	Aggregate	Diesel	37908.6179	1932060.83	437460.1947	186.9232192
Los Angeles (SC)	2022	T6 OOS heavy	Aggregate	Aggregate	Diesel	156.4590604	31080.56962	2284.302283	2.699014263
Los Angeles (SC)	2022	T6 OOS small	Aggregate	Aggregate	Diesel	83.58460294	4317.240411	1220.335203	0.401773955
Los Angeles (SC)	2022	T6 Public	Aggregate	Aggregate	Diesel	4445.935083	69430.49194	13486.00307	8.507368053
Los Angeles (SC)	2022	T6 utility	Aggregate	Aggregate	Diesel	996.7203316	16808.24099	11462.28381	1.735997959
Los Angeles (SC)	2022	T6TS	Aggregate	Aggregate	Gasoline	14505.49561	793122.3284	290225.9562	157.2392835
Los Angeles (SC)	2022	T7 Ag	Aggregate	Aggregate	Diesel	5.193051548	102.8930892	22.84942681	0.01852168
Los Angeles (SC)	2022	T7 CAIRP	Aggregate	Aggregate	Diesel	6003.500987	1067306.387	87651.11441	155.0696328
Los Angeles (SC)	2022	T7 CAIRP construction	Aggregate	Aggregate	Diesel	671.4917023	121085.6232	3035.787878	16.55458348
Los Angeles (SC)	2022	T7 NNOOS	Aggregate	Aggregate	Diesel	6498.761345	1301079.701	94881.91563	179.099333
Los Angeles (SC)	2022	T7 NOOS	Aggregate	Aggregate	Diesel	2371.048773	419354.6563	34617.31208	62.47642547
Los Angeles (SC)	2022	T7 POLA	Aggregate	Aggregate	Diesel	8258.014728	1072153.038	62760.91194	188.7409496
Los Angeles (SC)	2022	T7 Public	Aggregate	Aggregate	Diesel	5475.906144	110937.1004	16610.24862	19.0808356
Los Angeles (SC)	2022	T7 Single	Aggregate	Aggregate	Diesel	5794.937297	385296.7187	66872.77297	58.88961274
Los Angeles (SC)	2022	T7 single construction	Aggregate	Aggregate	Diesel	4300.116371	300391.1598	19440.65893	44.46501106
Los Angeles (SC)	2022	T7 SWCV	Aggregate	Aggregate	Diesel	1379.990695	56384.18389	5381.963711	27.81339016
Los Angeles (SC)	2022	T7 SWCV	Aggregate	Aggregate	Natural Gas	2623.533087	106827.7218	10231.77904	47.782843
Los Angeles (SC)	2022	T7 tractor	Aggregate	Aggregate	Diesel	12166.67647	1645420.533	154516.7912	230.7310322
Los Angeles (SC)	2022	T7 tractor construction	Aggregate	Aggregate	Diesel	3592.159925	247796.2601	16240.01536	37.46414496
Los Angeles (SC)	2022	T7 utility	Aggregate	Aggregate	Diesel	405.4684121	8232.431424	4662.886739	1.306947156
Los Angeles (SC)	2022	T7IS	Aggregate	Aggregate	Gasoline	55.2683338	5768.621752	1105.808823	1.407168754
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	Gasoline	460.6006493	32989.32038	1842.402597	7.783285084
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	Diesel	10.1389	1181.230112	40.5556	0.208547568
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	Electricity	12	1070.403311	48	0
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	Natural Gas	4129.345993	437121.0718	16517.38397	111.0876976

CalEEMod Inputs - Construction

Name:	
Project Number:	IRW-03
Project Location:	
County:	Los Angeles County (SC)
Source Receptor Area (SRA):	9 - East San Gabriel Valley
Climate Zone:	9
Land Use Setting:	Urban
Utility Company:	SCE
Air Basin:	South Coast Air Basin
Air District:	South Coast Air Quality Management District (SCAQMD)

	Main Project Site	Off-Site Area	Total
Project Site Acreage	5.89	0.13	6.02
Disturbed Site Acreage	5.89	0.13	6.02

New Construction	Land Use Area (SF)	Floor Area (SF)	Acres
Warehouse	103,670	103,670	2.38
Manufacturing	17,000	17,000	0.39
Office	9,160	4,830	0.11
TOTAL BUILDING		**125,500**	**2.88**
Landscaping	27,979	27,979	0.64
Parking Lot	123	20,193	0.46
Roadway Dedication	5,663	5,663	0.13
Other Asphalt Surfaces	82,896	82,896	1.90

Parking Space Type	Size (Square Feet/Stall)	Number of Stalls	Total Area (SqFt)
Standard	171	91	15,561
Compact	120	21	2,520
Parallel	192	11	2,112
Total	**n/a**	**123**	**20,193**

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Industrial	Warehouse	112.830	1000 BSF	2.49	112,830
Industrial	General Light Industrial	17.000	1000 BSF	0.39	17,000
Parking Lot	Parking Lot	123	Stalls	0.46	20,193
Parking Lot	Other Non-Asphalt	27.979	1000 BSF	0.64	0
Parking Lot	Other Asphalt	2.03	Acre	2.03	88,559
				6.02	

Demolition

Component	Tons Demolished	Haul Truck Capacity (tons)	Haul Distance (miles)*	Total Trip Ends	Duration (days)	Trip Ends/ day
Building Demolition	323	20	7	34	31	1
Asphalt Demolition	1,130	20	28	114	8	14

Soil Haul

Construction Activities	Haul Volume (cy)	Haul Truck Capacity (CY)	Haul Distance (miles)	Total Trip Ends	Duration (days)	Trip Ends/ day
Rough Grading Import	14,933	10	25.00	2,987	22	136

Architectural Coating

Land Use	Land Use Square Feet	CalEEMod Factor[1]	Total Paintable Surface Area	Paintable Interior Area[2]	Paintable Exterior Area[1]
Warehouse	112,830	2.0	225,660	169,245	56,415
General Light Industrial	17,000	2.0	34,000	25,500	8,500
Total Non-Residential	**129,830**		**259,660**	**194,745**	**64,915**
			259,660	194,745	64,915
Parking Lot	108,752	6%	6,525	-	6,525
			6,525		6,525

[1] The program assumes the total surface for painting equals 2 times the floor square footage 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.
[2] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

Construction Mitigation

South Coast AQMD Rule 403

Replace Ground Cover	PM10:	5	% Reduction
Replace Ground Cover	PM2.5:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph

South Coast AQMD Rule 1186

	Clean Paved Road	9	% PM Reduction

Construction Activities and Schedule Assumptions:

* based on info provided by applicant

CalEEMod Construction Schedule

		Construction Schedule		
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Building Demolition	Demolition	1/15/2022	2/28/2022	31
Asphalt Demolition	Demolition	2/1/2022	2/10/2022	8
Site Preparation	Site Preparation	3/1/2022	3/7/2022	5
Building Construction	Building Construction	3/2/2022	9/1/2022	132
Rough Grading	Grading	3/5/2022	4/5/2022	22
Untility Trenching	Trenching	4/1/2022	5/1/2022	21
Fine Grading	Grading	6/15/2022	6/30/2022	12
Architectural Coating	Architectural Coating	7/1/2022	7/31/2022	21
Finishing/Landscaping	Trenching	8/1/2022	9/15/2022	34

Adjusted Construction Schedule for CalEEMod

		Construction Schedule		
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Building Demolition	Demolition	2/1/2022	3/15/2022	31
Asphalt Demolition	Demolition	2/18/2022	3/1/2022	8
Site Preparation	Site Preparation	3/18/2022	3/24/2022	5
Building Construction	Building Construction	3/19/2022	9/20/2022	132
Rough Grading	Grading	3/22/2022	4/20/2022	22
Untility Trenching	Trenching	3/22/2022	4/19/2022	21
Fine Grading	Grading	6/5/2022	6/21/2022	12
Architectural Coating	Architectural Coating	6/22/2022	7/20/2022	21
Finishing/Landscaping	Trenching	7/21/2022	9/6/2022	34

Overlapping Construction Schedule

	Construction Schedule		
Construction Activities	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Building Demolition	2/1/2022	2/17/2022	13
Building Demolition & Asphalt Demolition	2/18/2022	3/1/2022	8
Building Demolition	3/2/2022	3/15/2022	10
Site Preparation	3/18/2022	3/18/2022	1
Site Preparation & Building Construction	3/19/2022	3/21/2022	1
Site Preparation, Building Construction, & Rough Grading	3/22/2022	3/24/2022	3
Building Construction & Rough Grading	3/25/2022	4/17/2022	16
Building Construction, Rough Grading, & Utility Trenching	4/18/2022	4/20/2022	3
Building Construction & Utility Trenching	4/21/2022	5/16/2022	18
Building Construction	5/17/2022	7/1/2022	34
Building Construction & Fine Grading	7/2/2022	7/19/2022	12
Building Construction & Architectural Coating	7/20/2022	8/17/2022	21
Building Construction & Finishing/Landscaping	8/18/2022	9/20/2022	24
Finishing/Landscaping	9/21/2022	10/4/2022	10

CalEEMod Construction Off-Road Equipment Inputs:

**Based on data verified by applicant, CalEEMod default used for construction equipment*

General Construction Hours: 8 hours btwn 7:00 AM to 4:00 PM (with 1 hr break), Mon-Fri

Construction Equipment Details						
Equipment	**model**	**# of Equipment**	**hr/day**	**hp**	**load factor***	**total trips**
Building Demolition						
Excavator	336	1	8	311	0.38	
Skidsteer Loader	262	1	8	74.3	0.37	
Worker Trips						5
Vendor Trips					0	
Hauling Trips						
Water Trucks						34
Asphalt Demolition						
Excavator	336	1	8	311	0.38	
Skidsteer Loader	262	1	8	74.3	0.37	
Worker Trips						5
Vendor Trips						
Hauling Trips						114
Water Trucks						2
Site Preparation						
Dozer Tractor	D4	1	8	130	0.43	
Worker Trips						3
Vendor Trips						2
Vendor Trips						*0*
Water Trucks						*2*
Hauling Trips						0
Building Construction						
Forklift	300	3	8	173	0.2	
Aerial Lift	Boomlift S45	3	8	74	0.31	
Worker Trips						100
Vendor Trips						39
Hauling Trips						0
Rough Grading						
Scraper	623	2	8	365	0.48	
Scraper	657	2	8	478	0.48	
Grader	140	1	8	179	0.41	
Tractor/Loader/Backhoe	Skip Loader Tractor 570	1	8	79	0.37	
Worker Trips						15
Vendor Trips						2
Vendor Trips						*0*
Water Trucks						*2*
Hauling Trips						2,987
Utilities Trenching						
Tractor/Loader/Backhoe	Loader Backhoe 310	2	8	70	0.37	
Worker Trips						5
Vendor Trips						0
Fine Grading						
Tractor/Loader/Backhoe	Skip Loader Tractor 570	1	8	79	0.37	
Roller	Vibratory Roller 24	1	8	36	0.38	
Worker Trips						5
Vendor Trips						2
Vendor Trips						*0*
Water Trucks						*2*
Hauling Trips						
Architectural Coating						
Aerial Lift	Boomlift S45	3	8	74	0.31	
Worker Trips						20
Vendor Trips						0
Finishing and Landscaping						
Tractor/Loader/Backhoe	Skip Loader Tractor 570	1	8	79	0.37	
Worker Trips						3
Vendor Trips						0
Hauling Trips						0

Construction Trips Worksheet

Phase Name	Worker Trip Ends Per Day	Vendor Trip Ends Per Day	Haul Truck Trip Ends Per Day	Total Haul Truck Trip Ends	Start Date	End Date	Workdays
Building Demolition	5	2	2	34	2/1/2022	3/15/2022	31
Asphalt Demolition	5	2	15	114	2/18/2022	3/1/2022	8
Site Preparation	3	2	0	0	3/18/2022	3/24/2022	5
Building Construction	100	39	0	0	3/19/2022	9/20/2022	132
Rough Grading	15	2	136	2,987	3/22/2022	4/20/2022	22
Untility Trenching	5	0	0	0	4/18/2022	5/16/2022	21
Fine Grading	5	2	0	0	7/2/2022	7/19/2022	12
Architectural Coating	20	0	0	0	7/20/2022	8/17/2022	21
Finishing/Landscaping	3	0	0	0	8/18/2022	10/4/2022	34

Construction Scenarios	Worker Trip Ends Per Day	Vendor Trip Ends Per Day	Haul Truck Trip Ends Per Day	Total Trip Ends Per Day	Start Date	End Date	Workdays
Building Demolition	5	2	2	9	2/1/2022	2/17/2022	13
Building Demolition & Asphalt Demolition	10	4	17	31	2/18/2022	3/1/2022	8
Building Demolition	5	2	2	9	3/2/2022	3/15/2022	10
Site Preparation	3	2	0	5	3/18/2022	3/18/2022	1
Site Preparation & Building Construction	103	41	0	144	3/19/2022	3/21/2022	1
Site Preparation, Building Construction, & Rough Grading	118	**43**	**136**	**297**	3/22/2022	3/24/2022	3
Building Construction & Rough Grading	115	41	**136**	292	3/25/2022	4/17/2022	16
Building Construction, Rough Grading, & Utility Trenching	**120**	41	**136**	**297**	4/18/2022	4/20/2022	3
Building Construction & Utility Trenching	105	39	0	144	4/21/2022	5/16/2022	18
Building Construction	100	39	0	139	5/17/2022	7/1/2022	34
Building Construction & Fine Grading	105	41	0	146	7/2/2022	7/19/2022	12
Building Construction & Architectural Coating	**120**	39	0	159	7/20/2022	8/17/2022	21
Building Construction & Finishing/Landscaping	103	39	0	142	8/18/2022	9/20/2022	24
Finishing/Landscaping	3	0	0	3	9/21/2022	10/4/2022	10
Maximum Daily Trips	**120**	**43**	**136**	**297**			

CalEEMod Inputs - Operation: Proposed Project

Name:	
Project Number:	IRW-03
Project Location:	
County:	Los Angeles County (SC)
Source Receptor Area (SRA):	9 - East San Gabriel Valley
Climate Zone:	9
Land Use Setting:	Urban
Operational Year:	2022
Utility Company:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	South Coast Air Quality Management District (South Coast AQMD)

	Main Project Site	Off-Site Area	Total
Proiect Site Acreage	5.89	0.13	6.02
Disturbed Site Acreage	5.89	0.13	6.02

New Construction

Land Use	Total SQFT	Acres
Warehouse	103,670	2.38
Manufacturing	17,000	0.39
Office	9,160	0.11
TOTAL BUILDING	**129,830**	**2.88**
Landscaping	27,979	0.64
Parking Lot	20,193	0.46
Roadway	5,663	0.13
Other Asphalt Surfaces	82,896	1.90

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Industrial	Warehouse	112.830	1000 BSF	2.49	112,830
Industrial	Manufacturing	17.000	1000 BSF	0.39	17,000
Parking Lot	Parking Lot	123	Stalls	0.46	20,193
Parking Lot	Other Non-Asphalt	27.979	1000 BSF	0.64	0
Parking Lot	Other Asphalt	2.03	Acre	2.03	88,559
				6.02	

Daily Trips Calculation

	Warehouse	Manufacturing	Total	Total Annual Trips	Average Daily Trips	Fleet Mix %
Daily Trips:[1]	196	66	262			
Passenger	*156*	*41*	*197*			
2- & 3-Axle Trucks	*16*	*12*	*28*			
4-Axle Trucks	*24*	*13*	*37*			
Days Per Week	365	365	365			
Weeks Per Year	1	1	1			
Annual Trips	71,540	24,090	95,630	95,630	263	100%
Passenger	*56,940*	*14,965*	*71,905*	*71,905*	*198*	75.19%
2- & 3-Axle Trucks	*5,840*	*4,380*	*10,220*	*10,220*	*28*	10.69%
4-Axle Trucks	*8,760*	*4,745*	*13,505*	*13,505*	*37*	14.12%
				540200		

Project Trips CalEEMod Inputs

Land Use	Passenger/Main Model Run		Truck Model Run	
	Trips Per Day	Trip Generation Rate	Trips Per Day[2]	Trip Generation Rate
Warehouse	148	1.3097	33	0.2888
Manufacturing	50	2.9272	33	1.9170
Total	***198***	***NA***	***65***	

[1] *Urban Crossroads. 2021, July 24. Azusa Canyon Road Warehouse Transportation Analysis.*
[2] *For purposes of this analysis, truck trips are proportioned equally between the land uses.*

Vehicle Miles Traveled

Passenger Vehicle Trips

Utilized default CalEEMod trip lengths and trip type assumptions.

Truck Trips

Truck Type	Daily Trips	Average Trip Length[1]	Daily VMT	Annual VMT[2]	Adjusted Average Trip Length[3]
2- & 3-Axle Trucks	**28**	*39.9*	1,120	408,898	*40.01*
4-Axle Trucks	**37**	39.9	1,480	540,330	*40.01*
	65			**949,228**	

[1] *Derived from the SCAG's Heavy-Duty Truck Regional Travel Demand model and represents the average class 8 truck trip distance within the SoCAB; South Coast Air Quality Management District. 2021, May. Final Staff Report: Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Rule 316 – Fees for Rule 2305*

[2] *Based on 365 days.*
[3] *Accounts for CalEEMod methodology which assumes 364 days per year.*

Water Demand*

	Gallons Per Day	Gallons Per Year
Indoor Water:	854	311,710
Outdoor Water:	565	206,225
Total	**1,419**	**517,935**

**See Table 22, Proposed and Exiting Wastewater Demand, of the MND.*

CalEEMod Inputs

Land Use	Indoor (gal/yr)	Outdoor (gal/yr)	Total Water Demand (gal/yr)
Warehouse	155,855	103,113	258,968
Manufacturing	155,855	103,113	258,968
Total:	**311,710**	**206,225**	**517,935**

*Assumes 100% aerobic treatment.

Solid Waste

Land Use	Land Use Amount	Generation Rate (pound/SF/day)*	Daily Solid Waste (lbs/day)	Annual Solid Waste (tons/yr)
Warehouse	103,670	0.0142	1,472.11	268.66
Manufacturing	17,000	0.0142	241.40	44.06
Office	9,160	0.006	54.96	10.03
		Total	**1,768.47**	**322.75**

**See Table 24, Existing and Proposed Solid Waste Generation, of the MND.*

CalEEMod Inputs

Land Use	Amount (tons/yr)
Warehouse	278.69
Manufacturing	44.06

Architectural Coating

Land Use	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable	Paintable Interior Area[1]	Paintable Exterior Area[1]
Warehouse	112,830	2.0	225,660	169,245	56,415
Manufacturing	17,000	2.0	34,000	25,500	8,500
Total Non-Residential	**129,830**		**259,660**	**194,745**	**64,915**
			259,660	194,745	64,915
Parking Lot and Asphalt Surfaces	108,752	6%	6,525	-	6,525
			6,525		6,525

[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 times the floor square footage 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.

Carbon Intensity Factors

Southern California Edison Carbon Intensity Factors

SCE CO_2e Intensity Factor[1]	512	pounds per megawatt hour
CO2:[1,2]	509.983	pounds per megawatt hour
CH4:[3]	0.033	pound per megawatt hour
N2O:[3]	0.004	pound per megawatt hour

[1] Based on CO_2e intensity factor of 512 pounds per megawatt hour; Southern California Edison. 2020. 2020 Sustainability Report. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf

[2] Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH4 and N2O; Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007.
[3] CalEEMod default values.

General Conversion Factors

lbs to kg	0.4536
kg to MTons	0.001
Mmbtu to Therm	0.1
Therms to kwh	29.30711111
kilowatt hrs to megawatt hrs	0.001
lbs to Tons	2000
Tons to MTon	0.9071847

Source: California Air Resources Board (CARB). 2010. Local Government Operations Protocol. Version 1.1. Appendix F, Standard Conversion Factors

Global Warming Potentials (GWP)

CO_2	1
CH_4	25
N_2O	298

Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH4 and N2O; Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007.

Changes to the CalEEMod Defaults - Fleet Mix 2022 (Passenger Cars)

Passenger Trips: 198

Commercial Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397	100%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	98%						2%	1%						100%
Proportion	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.654637	1.000000	0.057499	0.037742	0.024535	0.042329	0.207793	
Assumed Mix	75.19%						10.69%	14.12%						100.00%
adjusted with Assumed	0.421397	0.047691	0.143892	0.098268	0.017656	0.004556	0	0	0	0	0.018448	0	0	76%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	42%	5%	14%	10%	2%	0%	0%	0%	1%	0%	2%	0%	0%	76%
Modified	**0.555894**	**0.062912**	**0.189818**	**0.129632**	**0.023291**	**0.006011**	**0**	**0**	**0**	**0**	**0.024336**	**0**	**0**	**99.2%**
Final Check Trips	110	12	37	26	5	1	0	0	0	0	5	0	0	196
	99%					0%		0%						

Changes to the CalEEMod Defaults - Fleet Mix 2022 (Trucks)

Truck Trips: 65

Commercial Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397	100%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	98%						2%	1%						100%
Proportion	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.654637	1.000000	0.057499	0.037742	0.024535	0.042329	0.207793	
Assumed Mix	75.19%						10.69%	14.12%						100.00%
adjusted with Assumed	0	0	0	0	0	0.000000	0.069961	0.141221	0.006145	0.004033	0	0.004524	0.022207	25%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%	7%	14%	1%	0%	0%	0%	2%	25%
Modified	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.281997**	**0.569231**	**0.024769**	**0.016258**	**0.000000**	**0.018234**	**0.089511**	**100.0%**
Trips Check	0	0	0	0	0	0	18	37	2	1	0	1	6	65
Assumed MDV/HDT Mix	0%						43.08%	56.92%						
MDT truck adjustment (no buses or MH)							0.281997		0	0		0	0	28%
Adjusted MHD Fleet Mix							1.000000		0.000000	0.000000		0.000000	0.000000	100%
Assumed Truck Mix	**0**	**0**	**0**	**0**	**0**	**0**	**0.430769**	**0.569231**	**0**	**0**	**0**	**0**	**0**	
Trips - Final Check				0	0	0	28	37	0	0	0	0	0	65

CalEEMod Inputs - Existing Operations

Name:	
Project Number:	IRW-03
Project Location:	
County:	Los Angeles County (SC)
Source Receptor Area (SRA):	9 - East San Gabriel Valley
Climate Zone:	9
Land Use Setting:	Urban
Operational Year:	2022
Utility Company:	SCE
Air Basin:	South Coast Air Basin
Air District:	South Coast Air Quality Management District (South Coast AQMD)

	Project Site
Project Site Acreage	5.89

New Construction

Land Use	Total SQFT	Acres
Warehouse	62,713	1.44
TOTAL BUILDING	**62,713**	**1.44**
Unpaved/Landscaping	34,412	0.79
Parking Lot	30,415	0.70
Other Asphalt Surfaces	129,028	2.96

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Industrial	Warehouse	62.713	1000 BSF	1.44	62,713
Parking Lot	Parking Lot	116	Stalls	0.70	30,415
Parking Lot	Other Non-Asphalt	34.412	1000 BSF	0.79	0
Parking Lot	Other Asphalt	2.96	Acre	2.96	129,028
				5.89	

Daily Trips Calculation

	Total	Total Annual Trips	Average Daily Trips	Fleet Mix %
Daily Trips:[1]	110			
Passenger	*88*			
2- & 3-Axle Trucks	*11*			
4-Axle Trucks	*11*			
Days Per Week	365			
Weeks Per Year	1			
Annual Trips	40,150	40,150	110	100%
Passenger	*32,120*	*32,120*	*88*	80.00%
2- & 3-Axle Trucks	*4,015*	*4,015*	*11*	10.00%
4-Axle Trucks	*4,015*	*4,015*	*11*	10.00%
		160600		

Project Trips CalEEMod Inputs

Land Use	Passenger/Main Model Run		Truck Model Run	
	Trips Per Day	Trip Generation Rate	Trips Per Day	Trip Generation Rate
Warehouse	88	1.4071	22	0.3518

[1] *Urban Crossroads. 2021, July 24. Azusa Canyon Road Warehouse Transportation Analysis.*

Vehicle Miles Traveled

Passenger Vehicle Trips

Utilized default CalEEMod trip lengths and trip type assumptions.

Truck Trips

Truck Type	Daily Trips	Average Trip Length[1]	Daily VMT	Annual VMT[2]	Adjusted Average Trip Length[3]
2- & 3-Axle Trucks	**11**	*39.9*	440	160,639	*40.010*
4-Axle Trucks	**11**	39.9	440	160,639	*40.010*
	22			**321,277**	

[1] *Derived from the SCAG's Heavy-Duty Truck Regional Travel Demand model and represents the average class 8 truck trip distance within the SoCAB; South Coast Air Quality Management District. 2021, May. Final Staff Report: Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Rule 316 – Fees for Rule 2305*

[2] *Based on 365 days.*

[3] *Accounts for CalEEMod methodology which assumes 364 days per year.*

Water Demand

	Gallons Per Day	Gallons Per Year
Indoor Water:	873	318,645
Outdoor Water:	20	7,300
Total	**893**	**325,945**

CalEEMod Inputs

Land Use	Indoor (gal/yr)	Outdoor (gal/yr)	Total Water Demand (gal/yr)
Warehouse	318,645	7,300	325,945

*Assumes 100% aerobic treatment.

Solid Waste

Land Use	Land Use Amount	Generation Rate (pound/SF/day)	Daily Solid Waste (lbs/day)	Annual Solid Waste (tons/yr)
Warehouse	62,713	0.0142	890.52	162.52

CalEEMod Inputs

Land Use	Amount (tons/yr)
Warehouse	162.52

Architectural Coating *see Construction Assumptions*

Land Use	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface	Paintable Interior Area[1]	Paintable Exterior Area[1]
Warehouse	62,713	2.0	125,426	94,070	31,357
Total Non-Residential	**62,713**		**125,426**	**94,070**	**31,357**
			125,426	94,070	31,357
Parking Lot	30,415	6%	1,825	-	1,825
			1,825		1,825

[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 times the floor square footage 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.

Rule 1113

Land Use	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface	Paintable Interior Area[1]	Paintable Exterior Area[1]
Warehouse	62,713	2.0	125,426	94,070	31,357
Total Non-Residential	**62,713**		**125,426**	**94,070**	**31,357**
			125,426	94,070	31,357
Parking Lot and Asphalt Surfaces	30,415	6%	1,825	-	1,825
			1,825		1,825

[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 times the floor square footage 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.

Energy

Uitlizes CalEEMod default historical energy rates, which are based on the 2005 Building Energy Efficiency Standards.

Carbon Intensity Factors

Southern California Edison Carbon Intensity Factors

SCE CO_2e Intensity Factor[1]	512	pounds per megawatt hour
CO2:[1,2]	509.983	pounds per megawatt hour
CH4:[3]	0.033	pound per megawatt hour
N2O:[3]	0.004	pound per megawatt hour

[1] Based on CO_2e intensity factor of 512 pounds per megawatt hour; Southern California Edison. 2020. 2020 Sustainability Report. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-
[2] Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH4 and N2O; Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007.
[3] CalEEMod default values.

General Conversion Factors

lbs to kg	0.4536
kg to MTons	0.001
Mmbtu to Therm	0.1
Therms to kwh	29.30711111
kilowatt hrs to megawatt hrs	0.001
lbs to Tons	2000
Tons to MTon	0.9071847

Source: California Air Resources Board (CARB). 2010. Local Government Operations Protocol. Version 1.1. Appendix F, Standard Conversion Factors

	Global Warming Potentials (GWP)
CO_2	1
CH_4	25
N_2O	298

Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH4 and N2O; Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007.

Changes to the CalEEMod Defaults - Fleet Mix 2022 (Passenger Cars): Existing Land Use

Passenger Trips: 88

Commercial Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397	100%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	98%						2%	1%						100%
Proportion	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.654637	1.000000	0.057499	0.037742	0.024535	0.042329	0.207793	
Assumed Mix	80.00%						10.00%	10.00%						100.00%
adjusted with Assumed	0.448350	0.050741	0.153096	0.104553	0.018785	0.004848	0	0	0	0	0.019628	0	0	81%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45%	5%	15%	10%	2%	0%	0%	0%	1%	0%	2%	0%	0%	81%
Modified	**0.556438**	**0.062974**	**0.190004**	**0.129758**	**0.023314**	**0.006016**	**0**	**0**	**0**	**0**	**0.024360**	**0**	**0**	**99.3%**
Final Check Trips	49	6	17	11	2	1	0	0	0	0	2	0	0	88
	99%					0%		0%						

Changes to the CalEEMod Defaults - Fleet Mix 2022 (Trucks): Existing Land Use

Truck Trips: 22

Commercial Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397	100%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	98%						2%	1%						100%
Proportion	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.654637	1.000000	0.057499	0.037742	0.024535	0.042329	0.207793	
Assumed Mix	80.00%						10.00%	10.00%						100.00%
adjusted with Assumed	0	0	0	0	0	0.000000	0.065464	0.100000	0.005750	0.003774	0	0.004233	0.020779	20%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%	7%	10%	1%	0%	0%	0%	2%	20%
Modified	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.327318**	**0.500000**	**0.028750**	**0.018871**	**0.000000**	**0.021165**	**0.103897**	**100.0%**
Trips Check	0	0	0	0	0	0	7	11	1	0	0	0	2	22
Assumed MDV/HDT Mix	0%						50.00%	50.00%						
MDT truck adjustment (no buses or MH)							0.327318		0	0		0	0	33%
Adjusted MHD Fleet Mix							1.000000		0.000000	0.000000		0.000000	0.000000	100%
Assumed Truck Mix	**0**	**0**	**0**	**0**	**0**	**0**	**0.500000**	**0.500000**	**0**	**0**	**0**	**0**	**0**	
Trips - Final Check				0	0	0	11	11	0	0	0	0	0	22

Changes to the CalEEMod Defaults - Fleet Mix 2021 (Passenger Cars): Existing Land Use

Passenger Trips: 88

Commercial														
Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425	100%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	98%						2%	1%						100%
Proportion	0.562615	0.062423	0.190727	0.131078	0.023298	0.005874	0.655279	1.000000	0.057908	0.037798	0.023985	0.041553	0.207463	
Assumed Mix	80.00%						10.00%	10.00%						100.00%
adjusted with Assumed	0.450092	0.049939	0.152582	0.104862	0.018638	0.004699	0	0	0	0	0.019188	0	0	80%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45%	5%	15%	10%	2%	0%	0%	0%	0%	0%	2%	0%	0%	80%
Modified	**0.562615**	**0.062423**	**0.190727**	**0.131078**	**0.023298**	**0.005874**	**0**	**0**	**0**	**0**	**0.023985**	**0**	**0**	**100.0%**
Final Check Trips	50	6	17	12	2	1	0	0	0	0	2	0	0	88
	100%					0%		0%						

Changes to the CalEEMod Defaults - Fleet Mix 2021 (Trucks): Existing Land Use

Truck Trips: 22

Commercial Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944	100%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	91%						2%	6%						100%
Proportion	0.605613	0.039864	0.197398	0.127377	0.017699	0.005585	0.795824	1.000000	0.059278	0.068364	0.006463	0.035296	0.041237	
Assumed Mix	80.00%						10.00%	10.00%						100.00%
adjusted with Assumed	0	0	0	0	0	0.000000	0.079582	0.100000	0.005928	0.006836	0	0.003530	0.004124	20%
Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%	8%	10%	1%	1%	0%	0%	0%	20%
Modified	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.000000**	**0.397912**	**0.500000**	**0.029639**	**0.034182**	**0.000000**	**0.017648**	**0.020619**	**100.0%**
Trips Check	0	0	0	0	0	0	9	11	1	1	0	0	0	22
Assumed MDV/HDT Mix	0%						50.00%	50.00%						
MDT truck adjustment (no buses or MH)							0.397912		0	0		0	0	40%
Adjusted MHD Fleet Mix							1.000000		0.000000	0.000000		0.000000	0.000000	100%
Assumed Truck Mix	**0**	**0**	**0**	**0**	**0**	**0**	**0.500000**	**0.500000**	**0**	**0**	**0**	**0**	**0**	
Trips - Final Check				0	0	0	11	11	0	0	0	0	0	22

Construction Localized Significance Thresholds: Building Demolition

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.5	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Demolition & Asphalt Demolition

SRA No.	Acres	NOx & CO Source Receptor Distance (meters)	Source Receptor Distance (Feet)	PM10 & PM2.5 Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	1.00	25	82	168	550	6.02

Source Receptor	East San Gabriel Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	25	Tractors	0.5	0.0625	8	2	1
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	1.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

1.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Site Preparation

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.50	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625			0
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625	8	1	0.5
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Site Preparation & Building Construction

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.50	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625			0
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625	8	1	0.5
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Site Preparation, Building Construction, & Rough Grading

SRA No.	Acres	NOx & CO Source Receptor Distance (meters)	NOx & CO Source Receptor Distance (Feet)	PM10 & PM2.5 Source Receptor Distance (meters)	PM10 & PM2.5 Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	5.00	25	82	168	550	6.02

Source Receptor	East San Gabriel Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**203**	Graders	0.5	0.0625	8	1	0.5
CO	**1,733**	Dozers	0.5	0.0625	8	1	0.5
PM10	**91.41**	Scrapers	1	0.125	8	4	4
PM2.5	**29.18**					**Acres**	5.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	5	203	227	286	368	584
	5	203	227	286	368	584
		203	227	286	368	584
CO	5	1733	2299	3680	7600	25558
	5	1733	2299	3680	7600	25558
		1733	2299	3680	7600	25558
PM10	5	14	43	63	105	229
	5	14	43	63	105	229
		14	43	63	105	229
PM2.5	5	8	11	17	35	116
	5	8	11	17	35	116
		8	11	17	35	116

East San Gabriel Valley

5.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	203	227	286	368	584
CO	1733	2299	3680	7600	25558
PM10	14	43	63	105	229
PM2.5	8	11	17	35	116

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	5	9	5
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction & Rough Grading

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	5.00	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**203**	Graders	0.5	0.0625	8	1	0.5
CO	**1,733**	Dozers	0.5	0.0625			0
PM10	**91.41**	Scrapers	1	0.125	8	4	4
PM2.5	**29.18**					**Acres**	5.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	5	203	227	286	368	584
	5	203	227	286	368	584
		203	227	286	368	584
CO	5	1733	2299	3680	7600	25558
	5	1733	2299	3680	7600	25558
		1733	2299	3680	7600	25558
PM10	5	14	43	63	105	229
	5	14	43	63	105	229
		14	43	63	105	229
PM2.5	5	8	11	17	35	116
	5	8	11	17	35	116
		8	11	17	35	116

East San Gabriel Valley

5.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	203	227	286	368	584
CO	1733	2299	3680	7600	25558
PM10	14	43	63	105	229
PM2.5	8	11	17	35	116

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	5	9	5
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction, Rough Grading, & Utility Trenching

		NOx & CO		PM10 & PM2.5		
SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	5.00	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	3	1.5
NOx	**203**	Graders	0.5	0.0625	8	1	0.5
CO	**1,733**	Dozers	0.5	0.0625			0.0
PM10	**91.41**	Scrapers	1	0.125	8	4	4.0
PM2.5	**29.18**					**Acres**	6.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	5	203	227	286	368	584
	5	203	227	286	368	584
		203	227	286	368	584
CO	5	1733	2299	3680	7600	25558
	5	1733	2299	3680	7600	25558
		1733	2299	3680	7600	25558
PM10	5	14	43	63	105	229
	5	14	43	63	105	229
		14	43	63	105	229
PM2.5	5	8	11	17	35	116
	5	8	11	17	35	116
		8	11	17	35	116

East San Gabriel Valley

5.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	203	227	286	368	584
CO	1733	2299	3680	7600	25558
PM10	14	43	63	105	229
PM2.5	8	11	17	35	116

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	5	9	5
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction & Utility Trenching

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	1.00	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	2	1
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	1.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

1.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction

SRA No.	Acres	NOx & CO Source Receptor Distance (meters)	Source Receptor Distance (Feet)	PM10 & PM2.5 Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.00	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625			0
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction & Fine Grading

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.50	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction & Architectural Coating

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.00	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625			0
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction & Finishing/Landscaping

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.50	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**89**	Graders	0.5	0.0625			0
CO	**623**	Dozers	0.5	0.0625			0
PM10	**61.73**	Scrapers	1	0.125			0
PM2.5	**17.79**					**Acres**	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Finishing/Landscaping

SRA No.	Acres	NOx & CO Source Receptor Distance (meters)	Source Receptor Distance (Feet)	PM10 & PM2.5 Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
9	0.00	25	82	168	550	6.02

Source Receptor	**East San Gabriel Valley**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**89**	Tractors	0.5	0.0625			0
CO	**623**	Graders	0.5	0.0625			0
PM10	**61.73**	Dozers	0.5	0.0625			0
PM2.5	**17.79**	Scrapers	1	0.125			0
						Acres	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	89	112	159	251	489
	1	89	112	159	251	489
		89	112	159	251	489
CO	1	623	945	1914	4803	20721
	1	623	945	1914	4803	20721
		623	945	1914	4803	20721
PM10	1	5	14	34	75	199
	1	5	14	34	75	199
		5	14	34	75	199
PM2.5	1	3	5	9	22	94
	1	3	5	9	22	94
		3	5	9	22	94

East San Gabriel Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	89	112	159	251	489
CO	623	945	1914	4803	20721
PM10	5	14	34	75	199
PM2.5	3	5	9	22	94

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
9	1	9	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
General Light Industry	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,559.00	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on information provided. Please see assumptions in the AQ/GHG appendix.

Construction Phase - Based on information provided. Please see the assumptions file in the AQ/GHG appendix for further details.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Grading -

Demolition -

Trips and VMT - Based on information provided. Please see the assumptions in the AQ/GHG appendix for further details.

Construction Off-road Equipment Mitigation - Based on South Coast Rules 403 and 1186.

Table Name	Column Name	Default Value	New Value

Construction - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	132.00
tblConstructionPhase	NumDays	20.00	31.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	PhaseEndDate	10/18/2022	8/17/2022
tblConstructionPhase	PhaseEndDate	8/23/2022	9/20/2022
tblConstructionPhase	PhaseEndDate	8/24/2021	3/15/2022
tblConstructionPhase	PhaseEndDate	10/5/2021	4/20/2022
tblConstructionPhase	PhaseEndDate	9/7/2021	3/24/2022
tblConstructionPhase	PhaseStartDate	9/21/2022	7/20/2022
tblConstructionPhase	PhaseStartDate	10/6/2021	3/19/2022
tblConstructionPhase	PhaseStartDate	7/28/2021	2/1/2022
tblConstructionPhase	PhaseStartDate	9/8/2021	3/22/2022
tblConstructionPhase	PhaseStartDate	8/25/2021	3/18/2022
tblGrading	MaterialImported	0.00	14,933.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LandUseSquareFeet	88,426.80	88,559.00
tblLandUse	LandUseSquareFeet	27,979.00	0.00
tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46
tblOffRoadEquipment	HorsePower	158.00	311.00
tblOffRoadEquipment	HorsePower	89.00	173.00
tblOffRoadEquipment	HorsePower	187.00	179.00
tblOffRoadEquipment	HorsePower	158.00	311.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	HorsePower	65.00	74.30
tblOffRoadEquipment	HorsePower	65.00	74.30
tblOffRoadEquipment	HorsePower	212.00	130.00
tblOffRoadEquipment	HorsePower	63.00	74.00
tblOffRoadEquipment	HorsePower	367.00	365.00
tblOffRoadEquipment	HorsePower	367.00	478.00
tblOffRoadEquipment	HorsePower	97.00	70.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	80.00	36.00
tblOffRoadEquipment	HorsePower	63.00	74.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00

Construction - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	HaulingTripLength	20.00	28.00
tblTripsAndVMT	HaulingTripNumber	32.00	34.00
tblTripsAndVMT	HaulingTripNumber	1,867.00	2,987.00
tblTripsAndVMT	HaulingTripNumber	112.00	114.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

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					
2022	0.7618	1.6175	1.6088	4.7400e-003	0.1762	0.0502	0.2264	0.0408	0.0464	0.0872	0.0000	437.7325	437.7325	0.0747	0.0281	447.9614
Maximum	**0.7618**	**1.6175**	**1.6088**	**4.7400e-003**	**0.1762**	**0.0502**	**0.2264**	**0.0408**	**0.0464**	**0.0872**	**0.0000**	**437.7325**	**437.7325**	**0.0747**	**0.0281**	**447.9614**

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					
2022	0.7618	1.6175	1.6088	4.7400e-003	0.1399	0.0502	0.1901	0.0352	0.0464	0.0815	0.0000	437.7322	437.7322	0.0747	0.0281	447.9612
Maximum	**0.7618**	**1.6175**	**1.6088**	**4.7400e-003**	**0.1399**	**0.0502**	**0.1901**	**0.0352**	**0.0464**	**0.0815**	**0.0000**	**437.7322**	**437.7322**	**0.0747**	**0.0281**	**447.9612**

	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**	**20.62**	**0.00**	**16.05**	**13.82**	**0.00**	**6.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Construction - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	1-28-2022	4-27-2022	1.1160	1.1160
4	4-28-2022	7-27-2022	0.5311	0.5311
5	7-28-2022	9-30-2022	0.6843	0.6843
		Highest	1.1160	1.1160

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	2/1/2022	3/15/2022	5	31	
2	Asphalt Demolition	Demolition	2/18/2022	3/1/2022	5	8	
3	Site Preparation	Site Preparation	3/18/2022	3/24/2022	5	5	
4	Building Construction	Building Construction	3/19/2022	9/20/2022	5	132	
5	Rough Grading	Grading	3/22/2022	4/20/2022	5	22	
6	Utility Trenching	Trenching	4/18/2022	5/16/2022	5	21	
7	Fine Grading	Grading	7/2/2022	7/19/2022	5	12	
8	Architectural Coating	Architectural Coating	7/20/2022	8/17/2022	5	21	
9	Finishing/Landscaping	Trenching	8/18/2022	10/4/2022	5	34	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 55

Acres of Paving: 3.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 194,745; Non-Residential Outdoor: 64,915; Striped Parking Area: 6,525 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	0	7.00	231	0.29
Building Demolition	Excavators	1	8.00	311	0.38
Rough Grading	Excavators	0	8.00	158	0.38
Building Construction	Forklifts	3	8.00	173	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Rough Grading	Graders	1	8.00	179	0.41
Asphalt Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition	Excavators	1	8.00	311	0.38

Construction - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fine Grading	Excavators	0	8.00	158	0.38
Building Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rough Grading	Tractors/Loaders/Backhoes	1	8.00	79	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Fine Grading	Graders	0	8.00	187	0.41
Asphalt Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	79	0.37
Building Demolition	Skid Steer Loaders	1	8.00	74.3	0.37
Asphalt Demolition	Skid Steer Loaders	1	8.00	74.3	0.37
Site Preparation	Crawler Tractors	1	8.00	130	0.43
Building Construction	Aerial Lifts	3	8.00	74	0.31
Rough Grading	Scrapers	2	8.00	365	0.48
Rough Grading	Scrapers	2	8.00	478	0.48
Utility Trenching	Tractors/Loaders/Backhoes	2	8.00	70	0.37
Fine Grading	Rollers	1	8.00	36	0.38
Architectural Coating	Aerial Lifts	3	8.00	74	0.31
Finishing/Landscaping	Tractors/Loaders/Backhoes	1	8.00	79	0.37

Construction - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Building Demolition	2	5.00	2.00	34.00	14.70	6.90	7.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	6	15.00	2.00	2,987.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	100.00	39.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition	2	5.00	2.00	114.00	14.70	6.90	28.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	2	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping	1	3.00	0.00	0.00	14.70	6.90	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 Building Demolition - 2022

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					3.4600e-003	0.0000	3.4600e-003	5.2000e-004	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3600e-003	0.0499	0.0587	1.9000e-004		1.7300e-003	1.7300e-003		1.6000e-003	1.6000e-003	0.0000	16.9615	16.9615	5.4900e-003	0.0000	17.0986
Total	**5.3600e-003**	**0.0499**	**0.0587**	**1.9000e-004**	**3.4600e-003**	**1.7300e-003**	**5.1900e-003**	**5.2000e-004**	**1.6000e-003**	**2.1200e-003**	**0.0000**	**16.9615**	**16.9615**	**5.4900e-003**	**0.0000**	**17.0986**

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.2700e-003	3.9000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3970	0.3970	2.0000e-005	6.0000e-005	0.4163
Vendor	6.0000e-005	1.5900e-003	5.3000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5920	0.5920	2.0000e-005	9.0000e-005	0.6179
Worker	2.7000e-004	2.2000e-004	2.8700e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.5000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.6985	0.6985	2.0000e-005	2.0000e-005	0.7047
Total	**3.7000e-004**	**3.0800e-003**	**3.7900e-003**	**2.0000e-005**	**1.1500e-003**	**3.0000e-005**	**1.1700e-003**	**3.2000e-004**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.6874**	**1.6874**	**6.0000e-005**	**1.7000e-004**	**1.7388**

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					1.4800e-003	0.0000	1.4800e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3600e-003	0.0499	0.0587	1.9000e-004		1.7300e-003	1.7300e-003		1.6000e-003	1.6000e-003	0.0000	16.9615	16.9615	5.4900e-003	0.0000	17.0986
Total	**5.3600e-003**	**0.0499**	**0.0587**	**1.9000e-004**	**1.4800e-003**	**1.7300e-003**	**3.2100e-003**	**2.2000e-004**	**1.6000e-003**	**1.8200e-003**	**0.0000**	**16.9615**	**16.9615**	**5.4900e-003**	**0.0000**	**17.0986**

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	4.0000e-005	1.2700e-003	3.9000e-004	0.0000	1.0000e-004	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3970	0.3970	2.0000e-005	6.0000e-005	0.4163
Vendor	6.0000e-005	1.5900e-003	5.3000e-004	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5920	0.5920	2.0000e-005	9.0000e-005	0.6179
Worker	2.7000e-004	2.2000e-004	2.8700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	1.0000e-005	2.1000e-004	0.0000	0.6985	0.6985	2.0000e-005	2.0000e-005	0.7047
Total	**3.7000e-004**	**3.0800e-003**	**3.7900e-003**	**2.0000e-005**	**1.0600e-003**	**3.0000e-005**	**1.0900e-003**	**2.9000e-004**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.6874**	**1.6874**	**6.0000e-005**	**1.7000e-004**	**1.7388**

3.3 Asphalt Demolition - 2022

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0121	0.0000	0.0121	1.8300e-003	0.0000	1.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3800e-003	0.0129	0.0151	5.0000e-005		4.5000e-004	4.5000e-004		4.1000e-004	4.1000e-004	0.0000	4.3772	4.3772	1.4200e-003	0.0000	4.4126
Total	**1.3800e-003**	**0.0129**	**0.0151**	**5.0000e-005**	**0.0121**	**4.5000e-004**	**0.0125**	**1.8300e-003**	**4.1000e-004**	**2.2400e-003**	**0.0000**	**4.3772**	**4.3772**	**1.4200e-003**	**0.0000**	**4.4126**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.4000e-004	0.0137	2.8300e-003	5.0000e-005	1.3700e-003	1.0000e-004	1.4700e-003	3.8000e-004	1.0000e-004	4.7000e-004	0.0000	4.8681	4.8681	2.6000e-004	7.7000e-004	5.1048
Vendor	2.0000e-005	4.1000e-004	1.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1528	0.1528	1.0000e-005	2.0000e-005	0.1595
Worker	7.0000e-005	6.0000e-005	7.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1803	0.1803	1.0000e-005	0.0000	0.1819
Total	**4.3000e-004**	**0.0141**	**3.7100e-003**	**5.0000e-005**	**1.6400e-003**	**1.0000e-004**	**1.7400e-003**	**4.5000e-004**	**1.0000e-004**	**5.5000e-004**	**0.0000**	**5.2011**	**5.2011**	**2.8000e-004**	**7.9000e-004**	**5.4461**

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					5.1700e-003	0.0000	5.1700e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3800e-003	0.0129	0.0151	5.0000e-005		4.5000e-004	4.5000e-004		4.1000e-004	4.1000e-004	0.0000	4.3772	4.3772	1.4200e-003	0.0000	4.4126
Total	**1.3800e-003**	**0.0129**	**0.0151**	**5.0000e-005**	**5.1700e-003**	**4.5000e-004**	**5.6200e-003**	**7.8000e-004**	**4.1000e-004**	**1.1900e-003**	**0.0000**	**4.3772**	**4.3772**	**1.4200e-003**	**0.0000**	**4.4126**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.4000e-004	0.0137	2.8300e-003	5.0000e-005	1.2800e-003	1.0000e-004	1.3800e-003	3.5000e-004	1.0000e-004	4.5000e-004	0.0000	4.8681	4.8681	2.6000e-004	7.7000e-004	5.1048
Vendor	2.0000e-005	4.1000e-004	1.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1528	0.1528	1.0000e-005	2.0000e-005	0.1595
Worker	7.0000e-005	6.0000e-005	7.4000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.1803	0.1803	1.0000e-005	0.0000	0.1819
Total	**4.3000e-004**	**0.0141**	**3.7100e-003**	**5.0000e-005**	**1.5300e-003**	**1.0000e-004**	**1.6300e-003**	**4.1000e-004**	**1.0000e-004**	**5.3000e-004**	**0.0000**	**5.2011**	**5.2011**	**2.8000e-004**	**7.9000e-004**	**5.4461**

3.4 Site Preparation - 2022

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	9.4100e-003	8.0200e-003	1.0000e-005		5.3000e-004	5.3000e-004		4.8000e-004	4.8000e-004	0.0000	1.0515	1.0515	3.4000e-004	0.0000	1.0600
Total	**9.6000e-004**	**9.4100e-003**	**8.0200e-003**	**1.0000e-005**	**1.3300e-003**	**5.3000e-004**	**1.8600e-003**	**1.4000e-004**	**4.8000e-004**	**6.2000e-004**	**0.0000**	**1.0515**	**1.0515**	**3.4000e-004**	**0.0000**	**1.0600**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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-005	2.6000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0955	0.0955	0.0000	1.0000e-005	0.0997
Worker	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0676	0.0676	0.0000	0.0000	0.0682
Total	**4.0000e-005**	**2.8000e-004**	**3.7000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1631**	**0.1631**	**0.0000**	**1.0000e-005**	**0.1679**

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					5.7000e-004	0.0000	5.7000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	9.4100e-003	8.0200e-003	1.0000e-005		5.3000e-004	5.3000e-004		4.8000e-004	4.8000e-004	0.0000	1.0515	1.0515	3.4000e-004	0.0000	1.0600
Total	**9.6000e-004**	**9.4100e-003**	**8.0200e-003**	**1.0000e-005**	**5.7000e-004**	**5.3000e-004**	**1.1000e-003**	**6.0000e-005**	**4.8000e-004**	**5.4000e-004**	**0.0000**	**1.0515**	**1.0515**	**3.4000e-004**	**0.0000**	**1.0600**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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-005	2.6000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0955	0.0955	0.0000	1.0000e-005	0.0997
Worker	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0676	0.0676	0.0000	0.0000	0.0682
Total	**4.0000e-005**	**2.8000e-004**	**3.7000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1631**	**0.1631**	**0.0000**	**1.0000e-005**	**0.1679**

3.5 Building Construction - 2022

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	0.0413	0.4299	0.6408	9.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	86.0593	86.0593	0.0278	0.0000	86.7551
Total	**0.0413**	**0.4299**	**0.6408**	**9.8000e-004**		**0.0184**	**0.0184**		**0.0169**	**0.0169**	**0.0000**	**86.0593**	**86.0593**	**0.0278**	**0.0000**	**86.7551**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0200e-003	0.1324	0.0439	5.0000e-004	0.0162	1.2000e-003	0.0174	4.6800e-003	1.1500e-003	5.8300e-003	0.0000	49.1526	49.1526	1.6400e-003	7.0900e-003	51.3065
Worker	0.0226	0.0188	0.2447	6.5000e-004	0.0723	4.7000e-004	0.0728	0.0192	4.3000e-004	0.0196	0.0000	59.4819	59.4819	1.7100e-003	1.6300e-003	60.0090
Total	**0.0276**	**0.1512**	**0.2886**	**1.1500e-003**	**0.0885**	**1.6700e-003**	**0.0902**	**0.0239**	**1.5800e-003**	**0.0255**	**0.0000**	**108.6345**	**108.6345**	**3.3500e-003**	**8.7200e-003**	**111.3155**

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	0.0413	0.4299	0.6408	9.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	86.0592	86.0592	0.0278	0.0000	86.7550
Total	**0.0413**	**0.4299**	**0.6408**	**9.8000e-004**		**0.0184**	**0.0184**		**0.0169**	**0.0169**	**0.0000**	**86.0592**	**86.0592**	**0.0278**	**0.0000**	**86.7550**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0200e-003	0.1324	0.0439	5.0000e-004	0.0152	1.2000e-003	0.0164	4.4300e-003	1.1500e-003	5.5800e-003	0.0000	49.1526	49.1526	1.6400e-003	7.0900e-003	51.3065
Worker	0.0226	0.0188	0.2447	6.5000e-004	0.0667	4.7000e-004	0.0672	0.0178	4.3000e-004	0.0183	0.0000	59.4819	59.4819	1.7100e-003	1.6300e-003	60.0090
Total	**0.0276**	**0.1512**	**0.2886**	**1.1500e-003**	**0.0819**	**1.6700e-003**	**0.0835**	**0.0223**	**1.5800e-003**	**0.0238**	**0.0000**	**108.6345**	**108.6345**	**3.3500e-003**	**8.7200e-003**	**111.3155**

3.6 Rough Grading - 2022

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					0.0300	0.0000	0.0300	3.2800e-003	0.0000	3.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0472	0.5223	0.3604	8.6000e-004		0.0202	0.0202		0.0186	0.0186	0.0000	75.9776	75.9776	0.0246	0.0000	76.5919
Total	**0.0472**	**0.5223**	**0.3604**	**8.6000e-004**	**0.0300**	**0.0202**	**0.0502**	**3.2800e-003**	**0.0186**	**0.0219**	**0.0000**	**75.9776**	**75.9776**	**0.0246**	**0.0000**	**76.5919**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2200e-003	0.3230	0.0684	1.1500e-003	0.0321	2.3300e-003	0.0344	8.8200e-003	2.2300e-003	0.0110	0.0000	114.3138	114.3138	6.0900e-003	0.0181	119.8715
Vendor	4.0000e-005	1.1300e-003	3.8000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4201	0.4201	1.0000e-005	6.0000e-005	0.4385
Worker	5.7000e-004	4.7000e-004	6.1200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4871	1.4871	4.0000e-005	4.0000e-005	1.5002
Total	**8.8300e-003**	**0.3246**	**0.0749**	**1.1700e-003**	**0.0341**	**2.3500e-003**	**0.0364**	**9.3400e-003**	**2.2500e-003**	**0.0116**	**0.0000**	**116.2209**	**116.2209**	**6.1400e-003**	**0.0182**	**121.8102**

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					0.0128	0.0000	0.0128	1.4000e-003	0.0000	1.4000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0472	0.5223	0.3604	8.6000e-004		0.0202	0.0202		0.0186	0.0186	0.0000	75.9775	75.9775	0.0246	0.0000	76.5918
Total	**0.0472**	**0.5223**	**0.3604**	**8.6000e-004**	**0.0128**	**0.0202**	**0.0330**	**1.4000e-003**	**0.0186**	**0.0200**	**0.0000**	**75.9775**	**75.9775**	**0.0246**	**0.0000**	**76.5918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2200e-003	0.3230	0.0684	1.1500e-003	0.0299	2.3300e-003	0.0323	8.2900e-003	2.2300e-003	0.0105	0.0000	114.3138	114.3138	6.0900e-003	0.0181	119.8715
Vendor	4.0000e-005	1.1300e-003	3.8000e-004	0.0000	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4201	0.4201	1.0000e-005	6.0000e-005	0.4385
Worker	5.7000e-004	4.7000e-004	6.1200e-003	2.0000e-005	1.6700e-003	1.0000e-005	1.6800e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.4871	1.4871	4.0000e-005	4.0000e-005	1.5002
Total	**8.8300e-003**	**0.3246**	**0.0749**	**1.1700e-003**	**0.0317**	**2.3500e-003**	**0.0341**	**8.7800e-003**	**2.2500e-003**	**0.0110**	**0.0000**	**116.2209**	**116.2209**	**6.1400e-003**	**0.0182**	**121.8102**

3.7 Utility Trenching - 2022

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	2.4900e-003	0.0253	0.0338	5.0000e-005		1.3600e-003	1.3600e-003		1.2500e-003	1.2500e-003	0.0000	4.1247	4.1247	1.3300e-003	0.0000	4.1580
Total	**2.4900e-003**	**0.0253**	**0.0338**	**5.0000e-005**		**1.3600e-003**	**1.3600e-003**		**1.2500e-003**	**1.2500e-003**	**0.0000**	**4.1247**	**4.1247**	**1.3300e-003**	**0.0000**	**4.1580**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.5000e-004	1.9500e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4732	0.4732	1.0000e-005	1.0000e-005	0.4773
Total	**1.8000e-004**	**1.5000e-004**	**1.9500e-003**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4732**	**0.4732**	**1.0000e-005**	**1.0000e-005**	**0.4773**

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	2.4900e-003	0.0253	0.0338	5.0000e-005		1.3600e-003	1.3600e-003		1.2500e-003	1.2500e-003	0.0000	4.1247	4.1247	1.3300e-003	0.0000	4.1580
Total	**2.4900e-003**	**0.0253**	**0.0338**	**5.0000e-005**		**1.3600e-003**	**1.3600e-003**		**1.2500e-003**	**1.2500e-003**	**0.0000**	**4.1247**	**4.1247**	**1.3300e-003**	**0.0000**	**4.1580**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.5000e-004	1.9500e-003	1.0000e-005	5.3000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4732	0.4732	1.0000e-005	1.0000e-005	0.4773
Total	**1.8000e-004**	**1.5000e-004**	**1.9500e-003**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4732**	**0.4732**	**1.0000e-005**	**1.0000e-005**	**0.4773**

3.8 Fine Grading - 2022

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	1.8700e-003	0.0142	0.0173	2.0000e-005		8.0000e-004	8.0000e-004		7.4000e-004	7.4000e-004	0.0000	2.0258	2.0258	6.6000e-004	0.0000	2.0422
Total	**1.8700e-003**	**0.0142**	**0.0173**	**2.0000e-005**	**0.0000**	**8.0000e-004**	**8.0000e-004**	**0.0000**	**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.0258**	**2.0258**	**6.6000e-004**	**0.0000**	**2.0422**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	6.2000e-004	2.0000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2292	0.2292	1.0000e-005	3.0000e-005	0.2392
Worker	1.0000e-004	9.0000e-005	1.1100e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2704	0.2704	1.0000e-005	1.0000e-005	0.2728
Total	**1.2000e-004**	**7.1000e-004**	**1.3100e-003**	**0.0000**	**4.1000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**0.4995**	**0.4995**	**2.0000e-005**	**4.0000e-005**	**0.5120**

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	1.8700e-003	0.0142	0.0173	2.0000e-005		8.0000e-004	8.0000e-004		7.4000e-004	7.4000e-004	0.0000	2.0258	2.0258	6.6000e-004	0.0000	2.0422
Total	**1.8700e-003**	**0.0142**	**0.0173**	**2.0000e-005**	**0.0000**	**8.0000e-004**	**8.0000e-004**	**0.0000**	**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.0258**	**2.0258**	**6.6000e-004**	**0.0000**	**2.0422**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	6.2000e-004	2.0000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2292	0.2292	1.0000e-005	3.0000e-005	0.2392
Worker	1.0000e-004	9.0000e-005	1.1100e-003	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2704	0.2704	1.0000e-005	1.0000e-005	0.2728
Total	**1.2000e-004**	**7.1000e-004**	**1.3100e-003**	**0.0000**	**3.7000e-004**	**1.0000e-005**	**3.9000e-004**	**1.0000e-004**	**1.0000e-005**	**1.1000e-004**	**0.0000**	**0.4995**	**0.4995**	**2.0000e-005**	**4.0000e-005**	**0.5120**

3.9 Architectural Coating - 2022

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	0.6169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0355	0.0595	9.0000e-005		1.2400e-003	1.2400e-003		1.2100e-003	1.2100e-003	0.0000	8.1394	8.1394	1.9400e-003	0.0000	8.1879
Total	**0.6204**	**0.0355**	**0.0595**	**9.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**8.1394**	**8.1394**	**1.9400e-003**	**0.0000**	**8.1879**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	7.2000e-004	6.0000e-004	7.7900e-003	2.0000e-005	2.3000e-003	2.0000e-005	2.3200e-003	6.1000e-004	1.0000e-005	6.3000e-004	0.0000	1.8926	1.8926	5.0000e-005	5.0000e-005	1.9094
Total	**7.2000e-004**	**6.0000e-004**	**7.7900e-003**	**2.0000e-005**	**2.3000e-003**	**2.0000e-005**	**2.3200e-003**	**6.1000e-004**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**1.8926**	**1.8926**	**5.0000e-005**	**5.0000e-005**	**1.9094**

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	0.6169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0355	0.0595	9.0000e-005		1.2400e-003	1.2400e-003		1.2100e-003	1.2100e-003	0.0000	8.1394	8.1394	1.9400e-003	0.0000	8.1879
Total	**0.6204**	**0.0355**	**0.0595**	**9.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**8.1394**	**8.1394**	**1.9400e-003**	**0.0000**	**8.1879**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	7.2000e-004	6.0000e-004	7.7900e-003	2.0000e-005	2.1200e-003	2.0000e-005	2.1400e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.8926	1.8926	5.0000e-005	5.0000e-005	1.9094
Total	**7.2000e-004**	**6.0000e-004**	**7.7900e-003**	**2.0000e-005**	**2.1200e-003**	**2.0000e-005**	**2.1400e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.8926**	**1.8926**	**5.0000e-005**	**5.0000e-005**	**1.9094**

3.10 Finishing/Landscaping - 2022

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	2.2800e-003	0.0232	0.0310	4.0000e-005		1.2500e-003	1.2500e-003		1.1500e-003	1.1500e-003	0.0000	3.7837	3.7837	1.2200e-003	0.0000	3.8142
Total	**2.2800e-003**	**0.0232**	**0.0310**	**4.0000e-005**		**1.2500e-003**	**1.2500e-003**		**1.1500e-003**	**1.1500e-003**	**0.0000**	**3.7837**	**3.7837**	**1.2200e-003**	**0.0000**	**3.8142**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.7000e-004	1.5000e-004	1.8900e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4596	0.4596	1.0000e-005	1.0000e-005	0.4637
Total	**1.7000e-004**	**1.5000e-004**	**1.8900e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4596**	**0.4596**	**1.0000e-005**	**1.0000e-005**	**0.4637**

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	2.2800e-003	0.0232	0.0310	4.0000e-005		1.2500e-003	1.2500e-003		1.1500e-003	1.1500e-003	0.0000	3.7837	3.7837	1.2200e-003	0.0000	3.8142
Total	**2.2800e-003**	**0.0232**	**0.0310**	**4.0000e-005**		**1.2500e-003**	**1.2500e-003**		**1.1500e-003**	**1.1500e-003**	**0.0000**	**3.7837**	**3.7837**	**1.2200e-003**	**0.0000**	**3.8142**

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	1.7000e-004	1.5000e-004	1.8900e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4596	0.4596	1.0000e-005	1.0000e-005	0.4637
Total	**1.7000e-004**	**1.5000e-004**	**1.8900e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4596**	**0.4596**	**1.0000e-005**	**1.0000e-005**	**0.4637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
General Light Industry	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,559.00	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on information provided. Please see assumptions in the AQ/GHG appendix.

Construction Phase - Based on information provided. Please see the assumptions file in the AQ/GHG appendix for further details.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Grading -

Demolition -

Trips and VMT - Based on information provided. Please see the assumptions in the AQ/GHG appendix for further details.

Construction Off-road Equipment Mitigation - Based on South Coast Rules 403 and 1186.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	132.00
tblConstructionPhase	NumDays	20.00	31.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	PhaseEndDate	10/18/2022	8/17/2022
tblConstructionPhase	PhaseEndDate	8/23/2022	9/20/2022
tblConstructionPhase	PhaseEndDate	8/24/2021	3/15/2022
tblConstructionPhase	PhaseEndDate	10/5/2021	4/20/2022
tblConstructionPhase	PhaseEndDate	9/7/2021	3/24/2022
tblConstructionPhase	PhaseStartDate	9/21/2022	7/20/2022
tblConstructionPhase	PhaseStartDate	10/6/2021	3/19/2022
tblConstructionPhase	PhaseStartDate	7/28/2021	2/1/2022
tblConstructionPhase	PhaseStartDate	9/8/2021	3/22/2022
tblConstructionPhase	PhaseStartDate	8/25/2021	3/18/2022
tblGrading	MaterialImported	0.00	14,933.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LandUseSquareFeet	88,426.80	88,559.00
tblLandUse	LandUseSquareFeet	27,979.00	0.00

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46
tblOffRoadEquipment	HorsePower	158.00	311.00
tblOffRoadEquipment	HorsePower	89.00	173.00
tblOffRoadEquipment	HorsePower	187.00	179.00
tblOffRoadEquipment	HorsePower	158.00	311.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	HorsePower	65.00	74.30
tblOffRoadEquipment	HorsePower	65.00	74.30
tblOffRoadEquipment	HorsePower	212.00	130.00
tblOffRoadEquipment	HorsePower	63.00	74.00
tblOffRoadEquipment	HorsePower	367.00	365.00
tblOffRoadEquipment	HorsePower	367.00	478.00
tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	HorsePower	80.00	36.00
tblOffRoadEquipment	HorsePower	63.00	74.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	28.00
tblTripsAndVMT	HaulingTripNumber	32.00	34.00
tblTripsAndVMT	HaulingTripNumber	1,867.00	2,987.00
tblTripsAndVMT	HaulingTripNumber	112.00	114.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	60.2003	88.0248	57.2767	0.2233	7.8226	2.5662	10.3888	1.5985	2.3694	3.9678	0.0000	23,093.3912	23,093.3912	3.7517	1.9774	23,776.4391
Maximum	**60.2003**	**88.0248**	**57.2767**	**0.2233**	**7.8226**	**2.5662**	**10.3888**	**1.5985**	**2.3694**	**3.9678**	**0.0000**	**23,093.3912**	**23,093.3912**	**3.7517**	**1.9774**	**23,776.4391**

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	lb/day										lb/day					
2022	60.2003	88.0248	57.2767	0.2233	5.6344	2.5662	8.2006	1.3159	2.3694	3.6853	0.0000	23,093.3912	23,093.3912	3.7517	1.9774	23,776.4391
Maximum	**60.2003**	**88.0248**	**57.2767**	**0.2233**	**5.6344**	**2.5662**	**8.2006**	**1.3159**	**2.3694**	**3.6853**	**0.0000**	**23,093.3912**	**23,093.3912**	**3.7517**	**1.9774**	**23,776.4391**

	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**	**27.97**	**0.00**	**21.06**	**17.68**	**0.00**	**7.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	2/1/2022	3/15/2022	5	31	
2	Asphalt Demolition	Demolition	2/18/2022	3/1/2022	5	8	
3	Site Preparation	Site Preparation	3/18/2022	3/24/2022	5	5	
4	Building Construction	Building Construction	3/19/2022	9/20/2022	5	132	
5	Rough Grading	Grading	3/22/2022	4/20/2022	5	22	
6	Utility Trenching	Trenching	4/18/2022	5/16/2022	5	21	
7	Fine Grading	Grading	7/2/2022	7/19/2022	5	12	
8	Architectural Coating	Architectural Coating	7/20/2022	8/17/2022	5	21	
9	Finishing/Landscaping	Trenching	8/18/2022	10/4/2022	5	34	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 55

Acres of Paving: 3.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 194,745; Non-Residential Outdoor: 64,915; Striped Parking Area: 6,525

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	0	7.00	231	0.29
Building Demolition	Excavators	1	8.00	311	0.38
Rough Grading	Excavators	0	8.00	158	0.38
Building Construction	Forklifts	3	8.00	173	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Rough Grading	Graders	1	8.00	179	0.41
Asphalt Demolition	Concrete/Industrial Saws	0	8.00	81	0.73

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Asphalt Demolition	Excavators		1	8.00	311	0.38
Fine Grading	Excavators		0	8.00	158	0.38
Building Demolition	Rubber Tired Dozers		0	8.00	247	0.40
Rough Grading	Rubber Tired Dozers		0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers		0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes		0	7.00	97	0.37
Rough Grading	Tractors/Loaders/Backhoes		1	8.00	79	0.37
Site Preparation	Tractors/Loaders/Backhoes		0	8.00	97	0.37
Building Construction	Welders		0	8.00	46	0.45
Fine Grading	Graders		0	8.00	187	0.41
Asphalt Demolition	Rubber Tired Dozers		0	8.00	247	0.40
Fine Grading	Rubber Tired Dozers		0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes		1	8.00	79	0.37
Building Demolition	Skid Steer Loaders		1	8.00	74.3	0.37
Asphalt Demolition	Skid Steer Loaders		1	8.00	74.3	0.37
Site Preparation	Crawler Tractors		1	8.00	130	0.43
Building Construction	Aerial Lifts		3	8.00	74	0.31
Rough Grading	Scrapers		2	8.00	365	0.48
Rough Grading	Scrapers		2	8.00	478	0.48
Utility Trenching	Tractors/Loaders/Backhoes		2	8.00	70	0.37
Fine Grading	Rollers		1	8.00	36	0.38
Architectural Coating	Aerial Lifts		3	8.00	74	0.31
Finishing/Landscaping	Tractors/Loaders/Backhoes		1	8.00	79	0.37

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Building Demolition	2	5.00	2.00	34.00	14.70	6.90	7.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	6	15.00	2.00	2,987.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	100.00	39.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition	2	5.00	2.00	114.00	14.70	6.90	28.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	2	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping	1	3.00	0.00	0.00	14.70	6.90	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 Building Demolition - 2022

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	lb/day										lb/day					
Fugitive Dust					0.2230	0.0000	0.2230	0.0338	0.0000	0.0338			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030		1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**0.2230**	**0.1119**	**0.3349**	**0.0338**	**0.1030**	**0.1367**		**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	2.5600e-003	0.0780	0.0249	2.6000e-004	6.7300e-003	4.9000e-004	7.2200e-003	1.8500e-003	4.7000e-004	2.3200e-003		28.2245	28.2245	1.4400e-003	4.4800e-003	29.5947
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.0238**	**0.1886**	**0.2552**	**1.1600e-003**	**0.0754**	**1.7800e-003**	**0.0772**	**0.0204**	**1.6900e-003**	**0.0221**		**121.9889**	**121.9889**	**4.2600e-003**	**0.0118**	**125.6099**

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	lb/day										lb/day					
Fugitive Dust					0.0953	0.0000	0.0953	0.0144	0.0000	0.0144			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030	0.0000	1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**0.0953**	**0.1119**	**0.2072**	**0.0144**	**0.1030**	**0.1174**	**0.0000**	**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	2.5600e-003	0.0780	0.0249	2.6000e-004	6.2800e-003	4.9000e-004	6.7700e-003	1.7400e-003	4.7000e-004	2.2000e-003		28.2245	28.2245	1.4400e-003	4.4800e-003	29.5947
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.0238**	**0.1886**	**0.2552**	**1.1600e-003**	**0.0698**	**1.7800e-003**	**0.0716**	**0.0190**	**1.6900e-003**	**0.0207**		**121.9889**	**121.9889**	**4.2600e-003**	**0.0118**	**125.6099**

3.3 Asphalt Demolition - 2022

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	lb/day										lb/day					
Fugitive Dust					3.0226	0.0000	3.0226	0.4577	0.0000	0.4577			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030		1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**3.0226**	**0.1119**	**3.1345**	**0.4577**	**0.1030**	**0.5606**		**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.0868	3.2426	0.7027	0.0122	0.3491	0.0248	0.3739	0.0957	0.0237	0.1194		1,341.4249	1,341.4249	0.0717	0.2129	1,406.6449
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.1080**	**3.3532**	**0.9331**	**0.0131**	**0.4178**	**0.0261**	**0.4439**	**0.1142**	**0.0250**	**0.1392**		**1,435.1893**	**1,435.1893**	**0.0745**	**0.2202**	**1,502.6600**

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	lb/day										lb/day					
Fugitive Dust					1.2922	0.0000	1.2922	0.1957	0.0000	0.1957			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030	0.0000	1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**1.2922**	**0.1119**	**1.4041**	**0.1957**	**0.1030**	**0.2986**	**0.0000**	**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.0868	3.2426	0.7027	0.0122	0.3253	0.0248	0.3502	0.0899	0.0237	0.1136		1,341.4249	1,341.4249	0.0717	0.2129	1,406.6449
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.1080**	**3.3532**	**0.9331**	**0.0131**	**0.3889**	**0.0261**	**0.4149**	**0.1071**	**0.0250**	**0.1321**		**1,435.1893**	**1,435.1893**	**0.0745**	**0.2202**	**1,502.6600**

3.4 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.3826	3.7621	3.2089	4.7900e-003		0.2101	0.2101		0.1933	0.1933		463.6243	463.6243	0.1500		467.3729
Total	**0.3826**	**3.7621**	**3.2089**	**4.7900e-003**	**0.5303**	**0.2101**	**0.7403**	**0.0573**	**0.1933**	**0.2505**		**463.6243**	**463.6243**	**0.1500**		**467.3729**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0104	7.5800e-003	0.1181	3.1000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		31.0033	31.0033	8.4000e-004	7.5000e-004	31.2481
Total	**0.0143**	**0.1056**	**0.1517**	**7.0000e-004**	**0.0463**	**1.1400e-003**	**0.0475**	**0.0126**	**1.0900e-003**	**0.0137**		**73.0956**	**73.0956**	**2.2500e-003**	**6.8200e-003**	**75.1831**

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	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.3826	3.7621	3.2089	4.7900e-003		0.2101	0.2101		0.1933	0.1933	0.0000	463.6243	463.6243	0.1500		467.3729
Total	**0.3826**	**3.7621**	**3.2089**	**4.7900e-003**	**0.2267**	**0.2101**	**0.4367**	**0.0245**	**0.1933**	**0.2177**	**0.0000**	**463.6243**	**463.6243**	**0.1500**		**467.3729**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0104	7.5800e-003	0.1181	3.1000e-004	0.0309	2.1000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		31.0033	31.0033	8.4000e-004	7.5000e-004	31.2481
Total	**0.0143**	**0.1056**	**0.1517**	**7.0000e-004**	**0.0429**	**1.1400e-003**	**0.0440**	**0.0117**	**1.0900e-003**	**0.0128**		**73.0956**	**73.0956**	**2.2500e-003**	**6.8200e-003**	**75.1831**

3.5 Building Construction - 2022

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	lb/day										lb/day					
Off-Road	0.6259	6.5142	9.7087	0.0149		0.2790	0.2790		0.2567	0.2567		1,437.3350	1,437.3350	0.4649		1,448.9566
Total	**0.6259**	**6.5142**	**9.7087**	**0.0149**		**0.2790**	**0.2790**		**0.2567**	**0.2567**		**1,437.3350**	**1,437.3350**	**0.4649**		**1,448.9566**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	0.0767	1.9104	0.6550	7.6400e-003	0.2498	0.0182	0.2680	0.0719	0.0174	0.0893		820.8002	820.8002	0.0274	0.1183	856.7330
Worker	0.3460	0.2526	3.9358	0.0102	1.1178	7.1500e-003	1.1249	0.2964	6.5800e-003	0.3030		1,033.4419	1,033.4419	0.0282	0.0250	1,041.6027
Total	**0.4227**	**2.1630**	**4.5908**	**0.0179**	**1.3676**	**0.0254**	**1.3929**	**0.3684**	**0.0240**	**0.3924**		**1,854.2421**	**1,854.2421**	**0.0556**	**0.1433**	**1,898.3357**

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	lb/day										lb/day					
Off-Road	0.6259	6.5142	9.7087	0.0149		0.2790	0.2790		0.2567	0.2567	0.0000	1,437.3350	1,437.3350	0.4649		1,448.9566
Total	**0.6259**	**6.5142**	**9.7087**	**0.0149**		**0.2790**	**0.2790**		**0.2567**	**0.2567**	**0.0000**	**1,437.3350**	**1,437.3350**	**0.4649**		**1,448.9566**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	0.0767	1.9104	0.6550	7.6400e-003	0.2338	0.0182	0.2520	0.0680	0.0174	0.0854		820.8002	820.8002	0.0274	0.1183	856.7330
Worker	0.3460	0.2526	3.9358	0.0102	1.0303	7.1500e-003	1.0375	0.2750	6.5800e-003	0.2816		1,033.4419	1,033.4419	0.0282	0.0250	1,041.6027
Total	**0.4227**	**2.1630**	**4.5908**	**0.0179**	**1.2641**	**0.0254**	**1.2895**	**0.3430**	**0.0240**	**0.3670**		**1,854.2421**	**1,854.2421**	**0.0556**	**0.1433**	**1,898.3357**

3.6 Rough Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					2.7280	0.0000	2.7280	0.2979	0.0000	0.2979			0.0000			0.0000
Off-Road	4.2950	47.4838	32.7612	0.0786		1.8373	1.8373		1.6903	1.6903		7,613.7217	7,613.7217	2.4624		7,675.2825
Total	**4.2950**	**47.4838**	**32.7612**	**0.0786**	**2.7280**	**1.8373**	**4.5653**	**0.2979**	**1.6903**	**1.9882**		**7,613.7217**	**7,613.7217**	**2.4624**		**7,675.2825**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.7540	27.8603	6.1783	0.1046	2.9699	0.2113	3.1812	0.8142	0.2022	1.0164		11,454.2639	11,454.2639	0.6110	1.8174	12,011.1328
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0519	0.0379	0.5904	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
Total	**0.8099**	**27.9962**	**6.8023**	**0.1065**	**3.1504**	**0.2133**	**3.3637**	**0.8624**	**0.2040**	**1.0664**		**11,651.3725**	**11,651.3725**	**0.6166**	**1.8273**	**12,211.3083**

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	lb/day										lb/day					
Fugitive Dust					1.1662	0.0000	1.1662	0.1274	0.0000	0.1274			0.0000			0.0000
Off-Road	4.2950	47.4838	32.7612	0.0786		1.8373	1.8373		1.6903	1.6903	0.0000	7,613.7217	7,613.7217	2.4624		7,675.2825
Total	**4.2950**	**47.4838**	**32.7612**	**0.0786**	**1.1662**	**1.8373**	**3.0036**	**0.1274**	**1.6903**	**1.8177**	**0.0000**	**7,613.7217**	**7,613.7217**	**2.4624**		**7,675.2825**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.7540	27.8603	6.1783	0.1046	2.7680	0.2113	2.9793	0.7646	0.2022	0.9668		11,454.2639	11,454.2639	0.6110	1.8174	12,011.1328
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0519	0.0379	0.5904	1.5300e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
Total	**0.8099**	**27.9962**	**6.8023**	**0.1065**	**2.9345**	**0.2133**	**3.1478**	**0.8094**	**0.2040**	**1.0134**		**11,651.3725**	**11,651.3725**	**0.6166**	**1.8273**	**12,211.3083**

3.7 Utility Trenching - 2022

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	lb/day										lb/day					
Off-Road	0.2368	2.4086	3.2169	4.4700e-003		0.1295	0.1295		0.1192	0.1192		433.0153	433.0153	0.1401		436.5164
Total	**0.2368**	**2.4086**	**3.2169**	**4.4700e-003**		**0.1295**	**0.1295**		**0.1192**	**0.1192**		**433.0153**	**433.0153**	**0.1401**		**436.5164**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.0173**	**0.0126**	**0.1968**	**5.1000e-004**	**0.0559**	**3.6000e-004**	**0.0563**	**0.0148**	**3.3000e-004**	**0.0152**		**51.6721**	**51.6721**	**1.4100e-003**	**1.2500e-003**	**52.0801**

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	lb/day										lb/day					
Off-Road	0.2368	2.4086	3.2169	4.4700e-003		0.1295	0.1295		0.1192	0.1192	0.0000	433.0153	433.0153	0.1401		436.5164
Total	**0.2368**	**2.4086**	**3.2169**	**4.4700e-003**		**0.1295**	**0.1295**		**0.1192**	**0.1192**	**0.0000**	**433.0153**	**433.0153**	**0.1401**		**436.5164**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.0173**	**0.0126**	**0.1968**	**5.1000e-004**	**0.0515**	**3.6000e-004**	**0.0519**	**0.0138**	**3.3000e-004**	**0.0141**		**51.6721**	**51.6721**	**1.4100e-003**	**1.2500e-003**	**52.0801**

3.8 Fine Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3123	2.3606	2.8848	3.8400e-003		0.1337	0.1337		0.1230	0.1230		372.1744	372.1744	0.1204		375.1837
Total	**0.3123**	**2.3606**	**2.8848**	**3.8400e-003**	**0.0000**	**0.1337**	**0.1337**	**0.0000**	**0.1230**	**0.1230**		**372.1744**	**372.1744**	**0.1204**		**375.1837**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.0212**	**0.1106**	**0.2304**	**9.0000e-004**	**0.0687**	**1.2900e-003**	**0.0700**	**0.0185**	**1.2200e-003**	**0.0197**		**93.7644**	**93.7644**	**2.8200e-003**	**7.3200e-003**	**96.0152**

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3123	2.3606	2.8848	3.8400e-003		0.1337	0.1337		0.1230	0.1230	0.0000	372.1744	372.1744	0.1204		375.1837
Total	**0.3123**	**2.3606**	**2.8848**	**3.8400e-003**	**0.0000**	**0.1337**	**0.1337**	**0.0000**	**0.1230**	**0.1230**	**0.0000**	**372.1744**	**372.1744**	**0.1204**		**375.1837**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0173	0.0126	0.1968	5.1000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		51.6721	51.6721	1.4100e-003	1.2500e-003	52.0801
Total	**0.0212**	**0.1106**	**0.2304**	**9.0000e-004**	**0.0635**	**1.2900e-003**	**0.0648**	**0.0172**	**1.2200e-003**	**0.0185**		**93.7644**	**93.7644**	**2.8200e-003**	**7.3200e-003**	**96.0152**

3.9 Architectural Coating - 2022

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	lb/day										lb/day					
Archit. Coating	58.7508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3316	3.3828	5.6686	8.8900e-003		0.1184	0.1184		0.1154	0.1154		854.4894	854.4894	0.2037		859.5809
Total	**59.0825**	**3.3828**	**5.6686**	**8.8900e-003**		**0.1184**	**0.1184**		**0.1154**	**0.1154**		**854.4894**	**854.4894**	**0.2037**		**859.5809**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0692	0.0505	0.7872	2.0400e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		206.6884	206.6884	5.6300e-003	5.0000e-003	208.3205
Total	**0.0692**	**0.0505**	**0.7872**	**2.0400e-003**	**0.2236**	**1.4300e-003**	**0.2250**	**0.0593**	**1.3200e-003**	**0.0606**		**206.6884**	**206.6884**	**5.6300e-003**	**5.0000e-003**	**208.3205**

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	lb/day										lb/day					
Archit. Coating	58.7508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3316	3.3828	5.6686	8.8900e-003		0.1184	0.1184		0.1154	0.1154	0.0000	854.4894	854.4894	0.2037		859.5809
Total	**59.0825**	**3.3828**	**5.6686**	**8.8900e-003**		**0.1184**	**0.1184**		**0.1154**	**0.1154**	**0.0000**	**854.4894**	**854.4894**	**0.2037**		**859.5809**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0692	0.0505	0.7872	2.0400e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		206.6884	206.6884	5.6300e-003	5.0000e-003	208.3205
Total	**0.0692**	**0.0505**	**0.7872**	**2.0400e-003**	**0.2061**	**1.4300e-003**	**0.2075**	**0.0550**	**1.3200e-003**	**0.0563**		**206.6884**	**206.6884**	**5.6300e-003**	**5.0000e-003**	**208.3205**

3.10 Finishing/Landscaping - 2022

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	lb/day										lb/day					
Off-Road	0.1341	1.3647	1.8227	2.5300e-003		0.0734	0.0734		0.0675	0.0675		245.3389	245.3389	0.0794		247.3226
Total	**0.1341**	**1.3647**	**1.8227**	**2.5300e-003**		**0.0734**	**0.0734**		**0.0675**	**0.0675**		**245.3389**	**245.3389**	**0.0794**		**247.3226**

Construction - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0104	7.5800e-003	0.1181	3.1000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		31.0033	31.0033	8.4000e-004	7.5000e-004	31.2481
Total	**0.0104**	**7.5800e-003**	**0.1181**	**3.1000e-004**	**0.0335**	**2.1000e-004**	**0.0338**	**8.8900e-003**	**2.0000e-004**	**9.0900e-003**		**31.0033**	**31.0033**	**8.4000e-004**	**7.5000e-004**	**31.2481**

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	lb/day										lb/day					
Off-Road	0.1341	1.3647	1.8227	2.5300e-003		0.0734	0.0734		0.0675	0.0675	0.0000	245.3389	245.3389	0.0794		247.3226
Total	**0.1341**	**1.3647**	**1.8227**	**2.5300e-003**		**0.0734**	**0.0734**		**0.0675**	**0.0675**	**0.0000**	**245.3389**	**245.3389**	**0.0794**		**247.3226**

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	lb/day										lb/day					
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
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
Worker	0.0104	7.5800e-003	0.1181	3.1000e-004	0.0309	2.1000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		31.0033	31.0033	8.4000e-004	7.5000e-004	31.2481
Total	**0.0104**	**7.5800e-003**	**0.1181**	**3.1000e-004**	**0.0309**	**2.1000e-004**	**0.0311**	**8.2500e-003**	**2.0000e-004**	**8.4500e-003**		**31.0033**	**31.0033**	**8.4000e-004**	**7.5000e-004**	**31.2481**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
General Light Industry	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,559.00	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on information provided. Please see assumptions in the AQ/GHG appendix.

Construction Phase - Based on information provided. Please see the assumptions file in the AQ/GHG appendix for further details.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Based on information provided.

Off-road Equipment - Based on information provided.

Grading -

Demolition -

Trips and VMT - Based on information provided. Please see the assumptions in the AQ/GHG appendix for further details.

Construction Off-road Equipment Mitigation - Based on South Coast Rules 403 and 1186.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	132.00
tblConstructionPhase	NumDays	20.00	31.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	PhaseEndDate	10/18/2022	8/17/2022
tblConstructionPhase	PhaseEndDate	8/23/2022	9/20/2022
tblConstructionPhase	PhaseEndDate	8/24/2021	3/15/2022
tblConstructionPhase	PhaseEndDate	10/5/2021	4/20/2022
tblConstructionPhase	PhaseEndDate	9/7/2021	3/24/2022
tblConstructionPhase	PhaseStartDate	9/21/2022	7/20/2022
tblConstructionPhase	PhaseStartDate	10/6/2021	3/19/2022
tblConstructionPhase	PhaseStartDate	7/28/2021	2/1/2022
tblConstructionPhase	PhaseStartDate	9/8/2021	3/22/2022
tblConstructionPhase	PhaseStartDate	8/25/2021	3/18/2022
tblGrading	MaterialImported	0.00	14,933.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LandUseSquareFeet	88,426.80	88,559.00
tblLandUse	LandUseSquareFeet	27,979.00	0.00

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46
tblOffRoadEquipment	HorsePower	158.00	311.00
tblOffRoadEquipment	HorsePower	89.00	173.00
tblOffRoadEquipment	HorsePower	187.00	179.00
tblOffRoadEquipment	HorsePower	158.00	311.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	HorsePower	65.00	74.30
tblOffRoadEquipment	HorsePower	65.00	74.30
tblOffRoadEquipment	HorsePower	212.00	130.00
tblOffRoadEquipment	HorsePower	63.00	74.00
tblOffRoadEquipment	HorsePower	367.00	365.00
tblOffRoadEquipment	HorsePower	367.00	478.00
tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	HorsePower	80.00	36.00
tblOffRoadEquipment	HorsePower	63.00	74.00
tblOffRoadEquipment	HorsePower	97.00	79.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	28.00
tblTripsAndVMT	HaulingTripNumber	32.00	34.00
tblTripsAndVMT	HaulingTripNumber	1,867.00	2,987.00
tblTripsAndVMT	HaulingTripNumber	112.00	114.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	60.2287	89.2649	57.0063	0.2227	7.8226	2.5666	10.3892	1.5985	2.3698	3.9682	0.0000	23,031.964 9	23,031.964 9	3.7511	1.9801	23,715.799 7
Maximum	**60.2287**	**89.2649**	**57.0063**	**0.2227**	**7.8226**	**2.5666**	**10.3892**	**1.5985**	**2.3698**	**3.9682**	**0.0000**	**23,031.964 9**	**23,031.964 9**	**3.7511**	**1.9801**	**23,715.799 7**

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	lb/day										lb/day					
2022	60.2287	89.2649	57.0063	0.2227	5.6344	2.5666	8.2010	1.3159	2.3698	3.6857	0.0000	23,031.964 9	23,031.964 9	3.7511	1.9801	23,715.799 7
Maximum	**60.2287**	**89.2649**	**57.0063**	**0.2227**	**5.6344**	**2.5666**	**8.2010**	**1.3159**	**2.3698**	**3.6857**	**0.0000**	**23,031.964 9**	**23,031.964 9**	**3.7511**	**1.9801**	**23,715.799 7**

	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**	**27.97**	**0.00**	**21.06**	**17.68**	**0.00**	**7.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	2/1/2022	3/15/2022	5	31	
2	Asphalt Demolition	Demolition	2/18/2022	3/1/2022	5	8	
3	Site Preparation	Site Preparation	3/18/2022	3/24/2022	5	5	
4	Building Construction	Building Construction	3/19/2022	9/20/2022	5	132	
5	Rough Grading	Grading	3/22/2022	4/20/2022	5	22	
6	Utility Trenching	Trenching	4/18/2022	5/16/2022	5	21	
7	Fine Grading	Grading	7/2/2022	7/19/2022	5	12	
8	Architectural Coating	Architectural Coating	7/20/2022	8/17/2022	5	21	
9	Finishing/Landscaping	Trenching	8/18/2022	10/4/2022	5	34	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 55

Acres of Paving: 3.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 194,745; Non-Residential Outdoor: 64,915; Striped Parking Area: 6,525

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	0	7.00	231	0.29
Building Demolition	Excavators	1	8.00	311	0.38
Rough Grading	Excavators	0	8.00	158	0.38
Building Construction	Forklifts	3	8.00	173	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Rough Grading	Graders	1	8.00	179	0.41
Asphalt Demolition	Concrete/Industrial Saws	0	8.00	81	0.73

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Asphalt Demolition	Excavators		1	8.00	311	0.38
Fine Grading	Excavators		0	8.00	158	0.38
Building Demolition	Rubber Tired Dozers		0	8.00	247	0.40
Rough Grading	Rubber Tired Dozers		0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers		0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes		0	7.00	97	0.37
Rough Grading	Tractors/Loaders/Backhoes		1	8.00	79	0.37
Site Preparation	Tractors/Loaders/Backhoes		0	8.00	97	0.37
Building Construction	Welders		0	8.00	46	0.45
Fine Grading	Graders		0	8.00	187	0.41
Asphalt Demolition	Rubber Tired Dozers		0	8.00	247	0.40
Fine Grading	Rubber Tired Dozers		0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes		1	8.00	79	0.37
Building Demolition	Skid Steer Loaders		1	8.00	74.3	0.37
Asphalt Demolition	Skid Steer Loaders		1	8.00	74.3	0.37
Site Preparation	Crawler Tractors		1	8.00	130	0.43
Building Construction	Aerial Lifts		3	8.00	74	0.31
Rough Grading	Scrapers		2	8.00	365	0.48
Rough Grading	Scrapers		2	8.00	478	0.48
Utility Trenching	Tractors/Loaders/Backhoes		2	8.00	70	0.37
Fine Grading	Rollers		1	8.00	36	0.38
Architectural Coating	Aerial Lifts		3	8.00	74	0.31
Finishing/Landscaping	Tractors/Loaders/Backhoes		1	8.00	79	0.37

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Building Demolition	2	5.00	2.00	34.00	14.70	6.90	7.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	6	15.00	2.00	2,987.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	100.00	39.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition	2	5.00	2.00	114.00	14.70	6.90	28.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	2	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping	1	3.00	0.00	0.00	14.70	6.90	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 Building Demolition - 2022

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	lb/day										lb/day					
Fugitive Dust					0.2230	0.0000	0.2230	0.0338	0.0000	0.0338			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030		1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**0.2230**	**0.1119**	**0.3349**	**0.0338**	**0.1030**	**0.1367**		**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	2.4400e-003	0.0813	0.0256	2.6000e-004	6.7300e-003	4.9000e-004	7.2300e-003	1.8500e-003	4.7000e-004	2.3200e-003		28.2464	28.2464	1.4400e-003	4.4800e-003	29.6175
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.0249**	**0.1973**	**0.2411**	**1.1300e-003**	**0.0754**	**1.7900e-003**	**0.0772**	**0.0204**	**1.7000e-003**	**0.0221**		**119.2947**	**119.2947**	**4.2600e-003**	**0.0119**	**122.9448**

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	lb/day										lb/day					
Fugitive Dust					0.0953	0.0000	0.0953	0.0144	0.0000	0.0144			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030	0.0000	1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**0.0953**	**0.1119**	**0.2072**	**0.0144**	**0.1030**	**0.1174**	**0.0000**	**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	2.4400e-003	0.0813	0.0256	2.6000e-004	6.2800e-003	4.9000e-004	6.7700e-003	1.7400e-003	4.7000e-004	2.2100e-003		28.2464	28.2464	1.4400e-003	4.4800e-003	29.6175
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.0249**	**0.1973**	**0.2411**	**1.1300e-003**	**0.0698**	**1.7900e-003**	**0.0716**	**0.0190**	**1.7000e-003**	**0.0207**		**119.2947**	**119.2947**	**4.2600e-003**	**0.0119**	**122.9448**

3.3 Asphalt Demolition - 2022

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	lb/day										lb/day					
Fugitive Dust					3.0226	0.0000	3.0226	0.4577	0.0000	0.4577			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030		1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**3.0226**	**0.1119**	**3.1345**	**0.4577**	**0.1030**	**0.5606**		**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.0852	3.3727	0.7123	0.0123	0.3491	0.0249	0.3739	0.0957	0.0238	0.1195		1,341.7089	1,341.7089	0.0716	0.2129	1,406.9424
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.1076**	**3.4887**	**0.9277**	**0.0131**	**0.4178**	**0.0262**	**0.4439**	**0.1142**	**0.0250**	**0.1392**		**1,432.7572**	**1,432.7572**	**0.0744**	**0.2203**	**1,500.2696**

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	lb/day										lb/day					
Fugitive Dust					1.2922	0.0000	1.2922	0.1957	0.0000	0.1957			0.0000			0.0000
Off-Road	0.3456	3.2204	3.7849	0.0125		0.1119	0.1119		0.1030	0.1030	0.0000	1,206.2485	1,206.2485	0.3901		1,216.0017
Total	**0.3456**	**3.2204**	**3.7849**	**0.0125**	**1.2922**	**0.1119**	**1.4041**	**0.1957**	**0.1030**	**0.2986**	**0.0000**	**1,206.2485**	**1,206.2485**	**0.3901**		**1,216.0017**

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	lb/day										lb/day					
Hauling	0.0852	3.3727	0.7123	0.0123	0.3253	0.0249	0.3502	0.0899	0.0238	0.1136		1,341.7089	1,341.7089	0.0716	0.2129	1,406.9424
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.1076**	**3.4887**	**0.9277**	**0.0131**	**0.3889**	**0.0262**	**0.4150**	**0.1071**	**0.0250**	**0.1321**		**1,432.7572**	**1,432.7572**	**0.0744**	**0.2203**	**1,500.2696**

3.4 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.3826	3.7621	3.2089	4.7900e-003		0.2101	0.2101		0.1933	0.1933		463.6243	463.6243	0.1500		467.3729
Total	**0.3826**	**3.7621**	**3.2089**	**4.7900e-003**	**0.5303**	**0.2101**	**0.7403**	**0.0573**	**0.1933**	**0.2505**		**463.6243**	**463.6243**	**0.1500**		**467.3729**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0111	8.3700e-003	0.1084	2.9000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		29.3641	29.3641	8.5000e-004	8.0000e-004	29.6245
Total	**0.0150**	**0.1104**	**0.1432**	**6.8000e-004**	**0.0463**	**1.1500e-003**	**0.0475**	**0.0126**	**1.1000e-003**	**0.0137**		**71.4722**	**71.4722**	**2.2500e-003**	**6.8700e-003**	**73.5776**

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	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.3826	3.7621	3.2089	4.7900e-003		0.2101	0.2101		0.1933	0.1933	0.0000	463.6243	463.6243	0.1500		467.3729
Total	**0.3826**	**3.7621**	**3.2089**	**4.7900e-003**	**0.2267**	**0.2101**	**0.4367**	**0.0245**	**0.1933**	**0.2177**	**0.0000**	**463.6243**	**463.6243**	**0.1500**		**467.3729**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0111	8.3700e-003	0.1084	2.9000e-004	0.0309	2.1000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		29.3641	29.3641	8.5000e-004	8.0000e-004	29.6245
Total	**0.0150**	**0.1104**	**0.1432**	**6.8000e-004**	**0.0429**	**1.1500e-003**	**0.0441**	**0.0117**	**1.1000e-003**	**0.0128**		**71.4722**	**71.4722**	**2.2500e-003**	**6.8700e-003**	**73.5776**

3.5 Building Construction - 2022

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	lb/day										lb/day					
Off-Road	0.6259	6.5142	9.7087	0.0149		0.2790	0.2790		0.2567	0.2567		1,437.3350	1,437.3350	0.4649		1,448.9566
Total	**0.6259**	**6.5142**	**9.7087**	**0.0149**		**0.2790**	**0.2790**		**0.2567**	**0.2567**		**1,437.3350**	**1,437.3350**	**0.4649**		**1,448.9566**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	0.0758	1.9891	0.6776	7.6400e-003	0.2498	0.0183	0.2681	0.0719	0.0175	0.0894		821.1086	821.1086	0.0273	0.1184	857.0847
Worker	0.3704	0.2791	3.6137	9.6800e-003	1.1178	7.1500e-003	1.1249	0.2964	6.5800e-003	0.3030		978.8032	978.8032	0.0285	0.0267	987.4834
Total	**0.4462**	**2.2682**	**4.2913**	**0.0173**	**1.3676**	**0.0254**	**1.3930**	**0.3684**	**0.0241**	**0.3924**		**1,799.9118**	**1,799.9118**	**0.0558**	**0.1452**	**1,844.5681**

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	lb/day										lb/day					
Off-Road	0.6259	6.5142	9.7087	0.0149		0.2790	0.2790		0.2567	0.2567	0.0000	1,437.3350	1,437.3350	0.4649		1,448.9566
Total	**0.6259**	**6.5142**	**9.7087**	**0.0149**		**0.2790**	**0.2790**		**0.2567**	**0.2567**	**0.0000**	**1,437.3350**	**1,437.3350**	**0.4649**		**1,448.9566**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	0.0758	1.9891	0.6776	7.6400e-003	0.2338	0.0183	0.2521	0.0680	0.0175	0.0855		821.1086	821.1086	0.0273	0.1184	857.0847
Worker	0.3704	0.2791	3.6137	9.6800e-003	1.0303	7.1500e-003	1.0375	0.2750	6.5800e-003	0.2816		978.8032	978.8032	0.0285	0.0267	987.4834
Total	**0.4462**	**2.2682**	**4.2913**	**0.0173**	**1.2641**	**0.0254**	**1.2895**	**0.3430**	**0.0241**	**0.3670**		**1,799.9118**	**1,799.9118**	**0.0558**	**0.1452**	**1,844.5681**

3.6 Rough Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					2.7280	0.0000	2.7280	0.2979	0.0000	0.2979			0.0000			0.0000
Off-Road	4.2950	47.4838	32.7612	0.0786		1.8373	1.8373		1.6903	1.6903		7,613.7217	7,613.7217	2.4624		7,675.2825
Total	**4.2950**	**47.4838**	**32.7612**	**0.0786**	**2.7280**	**1.8373**	**4.5653**	**0.2979**	**1.6903**	**1.9882**		**7,613.7217**	**7,613.7217**	**2.4624**		**7,675.2825**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.7388	28.9822	6.2707	0.1046	2.9699	0.2117	3.1816	0.8142	0.2025	1.0167		11,456.9713	11,456.9713	0.6101	1.8179	12,013.9664
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0556	0.0419	0.5421	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
Total	**0.7983**	**29.1261**	**6.8475**	**0.1064**	**3.1504**	**0.2137**	**3.3641**	**0.8624**	**0.2044**	**1.0667**		**11,645.8999**	**11,645.8999**	**0.6158**	**1.8280**	**12,206.0420**

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	lb/day										lb/day					
Fugitive Dust					1.1662	0.0000	1.1662	0.1274	0.0000	0.1274			0.0000			0.0000
Off-Road	4.2950	47.4838	32.7612	0.0786		1.8373	1.8373		1.6903	1.6903	0.0000	7,613.7217	7,613.7217	2.4624		7,675.2825
Total	**4.2950**	**47.4838**	**32.7612**	**0.0786**	**1.1662**	**1.8373**	**3.0036**	**0.1274**	**1.6903**	**1.8177**	**0.0000**	**7,613.7217**	**7,613.7217**	**2.4624**		**7,675.2825**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hauling	0.7388	28.9822	6.2707	0.1046	2.7680	0.2117	2.9796	0.7646	0.2025	0.9671		11,456.9713	11,456.9713	0.6101	1.8179	12,013.9664
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0556	0.0419	0.5421	1.4500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
Total	**0.7983**	**29.1261**	**6.8475**	**0.1064**	**2.9345**	**0.2137**	**3.1482**	**0.8094**	**0.2044**	**1.0137**		**11,645.8999**	**11,645.8999**	**0.6158**	**1.8280**	**12,206.0420**

3.7 Utility Trenching - 2022

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	lb/day										lb/day					
Off-Road	0.2368	2.4086	3.2169	4.4700e-003		0.1295	0.1295		0.1192	0.1192		433.0153	433.0153	0.1401		436.5164
Total	**0.2368**	**2.4086**	**3.2169**	**4.4700e-003**		**0.1295**	**0.1295**		**0.1192**	**0.1192**		**433.0153**	**433.0153**	**0.1401**		**436.5164**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.0185**	**0.0140**	**0.1807**	**4.8000e-004**	**0.0559**	**3.6000e-004**	**0.0563**	**0.0148**	**3.3000e-004**	**0.0152**		**48.9402**	**48.9402**	**1.4200e-003**	**1.3400e-003**	**49.3742**

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	lb/day										lb/day					
Off-Road	0.2368	2.4086	3.2169	4.4700e-003		0.1295	0.1295		0.1192	0.1192	0.0000	433.0153	433.0153	0.1401		436.5164
Total	**0.2368**	**2.4086**	**3.2169**	**4.4700e-003**		**0.1295**	**0.1295**		**0.1192**	**0.1192**	**0.0000**	**433.0153**	**433.0153**	**0.1401**		**436.5164**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.0185**	**0.0140**	**0.1807**	**4.8000e-004**	**0.0515**	**3.6000e-004**	**0.0519**	**0.0138**	**3.3000e-004**	**0.0141**		**48.9402**	**48.9402**	**1.4200e-003**	**1.3400e-003**	**49.3742**

3.8 Fine Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3123	2.3606	2.8848	3.8400e-003		0.1337	0.1337		0.1230	0.1230		372.1744	372.1744	0.1204		375.1837
Total	**0.3123**	**2.3606**	**2.8848**	**3.8400e-003**	**0.0000**	**0.1337**	**0.1337**	**0.0000**	**0.1230**	**0.1230**		**372.1744**	**372.1744**	**0.1204**		**375.1837**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.0224**	**0.1160**	**0.2154**	**8.7000e-004**	**0.0687**	**1.3000e-003**	**0.0700**	**0.0185**	**1.2300e-003**	**0.0197**		**91.0483**	**91.0483**	**2.8200e-003**	**7.4100e-003**	**93.3272**

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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3123	2.3606	2.8848	3.8400e-003		0.1337	0.1337		0.1230	0.1230	0.0000	372.1744	372.1744	0.1204		375.1837
Total	**0.3123**	**2.3606**	**2.8848**	**3.8400e-003**	**0.0000**	**0.1337**	**0.1337**	**0.0000**	**0.1230**	**0.1230**	**0.0000**	**372.1744**	**372.1744**	**0.1204**		**375.1837**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0185	0.0140	0.1807	4.8000e-004	0.0515	3.6000e-004	0.0519	0.0138	3.3000e-004	0.0141		48.9402	48.9402	1.4200e-003	1.3400e-003	49.3742
Total	**0.0224**	**0.1160**	**0.2154**	**8.7000e-004**	**0.0635**	**1.3000e-003**	**0.0648**	**0.0172**	**1.2300e-003**	**0.0185**		**91.0483**	**91.0483**	**2.8200e-003**	**7.4100e-003**	**93.3272**

3.9 Architectural Coating - 2022

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	lb/day										lb/day					
Archit. Coating	58.7508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3316	3.3828	5.6686	8.8900e-003		0.1184	0.1184		0.1154	0.1154		854.4894	854.4894	0.2037		859.5809
Total	**59.0825**	**3.3828**	**5.6686**	**8.8900e-003**		**0.1184**	**0.1184**		**0.1154**	**0.1154**		**854.4894**	**854.4894**	**0.2037**		**859.5809**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0741	0.0558	0.7227	1.9400e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		195.7606	195.7606	5.7000e-003	5.3500e-003	197.4967
Total	**0.0741**	**0.0558**	**0.7227**	**1.9400e-003**	**0.2236**	**1.4300e-003**	**0.2250**	**0.0593**	**1.3200e-003**	**0.0606**		**195.7606**	**195.7606**	**5.7000e-003**	**5.3500e-003**	**197.4967**

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	lb/day										lb/day					
Archit. Coating	58.7508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3316	3.3828	5.6686	8.8900e-003		0.1184	0.1184		0.1154	0.1154	0.0000	854.4894	854.4894	0.2037		859.5809
Total	**59.0825**	**3.3828**	**5.6686**	**8.8900e-003**		**0.1184**	**0.1184**		**0.1154**	**0.1154**	**0.0000**	**854.4894**	**854.4894**	**0.2037**		**859.5809**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0741	0.0558	0.7227	1.9400e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		195.7606	195.7606	5.7000e-003	5.3500e-003	197.4967
Total	**0.0741**	**0.0558**	**0.7227**	**1.9400e-003**	**0.2061**	**1.4300e-003**	**0.2075**	**0.0550**	**1.3200e-003**	**0.0563**		**195.7606**	**195.7606**	**5.7000e-003**	**5.3500e-003**	**197.4967**

3.10 Finishing/Landscaping - 2022

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	lb/day										lb/day					
Off-Road	0.1341	1.3647	1.8227	2.5300e-003		0.0734	0.0734		0.0675	0.0675		245.3389	245.3389	0.0794		247.3226
Total	**0.1341**	**1.3647**	**1.8227**	**2.5300e-003**		**0.0734**	**0.0734**		**0.0675**	**0.0675**		**245.3389**	**245.3389**	**0.0794**		**247.3226**

Construction - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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
Worker	0.0111	8.3700e-003	0.1084	2.9000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		29.3641	29.3641	8.5000e-004	8.0000e-004	29.6245
Total	**0.0111**	**8.3700e-003**	**0.1084**	**2.9000e-004**	**0.0335**	**2.1000e-004**	**0.0338**	**8.8900e-003**	**2.0000e-004**	**9.0900e-003**		**29.3641**	**29.3641**	**8.5000e-004**	**8.0000e-004**	**29.6245**

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	lb/day										lb/day					
Off-Road	0.1341	1.3647	1.8227	2.5300e-003		0.0734	0.0734		0.0675	0.0675	0.0000	245.3389	245.3389	0.0794		247.3226
Total	**0.1341**	**1.3647**	**1.8227**	**2.5300e-003**		**0.0734**	**0.0734**		**0.0675**	**0.0675**	**0.0000**	**245.3389**	**245.3389**	**0.0794**		**247.3226**

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	lb/day										lb/day					
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
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
Worker	0.0111	8.3700e-003	0.1084	2.9000e-004	0.0309	2.1000e-004	0.0311	8.2500e-003	2.0000e-004	8.4500e-003		29.3641	29.3641	8.5000e-004	8.0000e-004	29.6245
Total	**0.0111**	**8.3700e-003**	**0.1084**	**2.9000e-004**	**0.0309**	**2.1000e-004**	**0.0311**	**8.2500e-003**	**2.0000e-004**	**8.4500e-003**		**29.3641**	**29.3641**	**8.5000e-004**	**8.0000e-004**	**29.6245**

Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Los Angeles-South Coast County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finishing/Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rough Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utility Trenching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	0	No Change	0.00
Cranes	Diesel	No Change	0	0	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00

Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Aerial Lifts	Diesel	No Change	0	6	No Change	0.00
Crawler Tractors	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	0	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00
Generator Sets	Diesel	No Change	0	0	No Change	0.00
Scrapers	Diesel	No Change	0	4	No Change	0.00
Welders	Diesel	No Change	0	0	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Aerial Lifts	9.72000E-003	1.51040E-001	2.94910E-001	4.50000E-004	2.80000E-003	2.58000E-003	0.00000E+000	3.97689E+001	3.97689E+001	1.28600E-002	0.00000E+000	4.00904E+001
Air Compressors	2.15000E-003	1.47900E-002	1.90400E-002	3.00000E-005	8.60000E-004	8.60000E-004	0.00000E+000	2.68092E+000	2.68092E+000	1.70000E-004	0.00000E+000	2.68528E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Crawler Tractors	9.60000E-004	9.41000E-003	8.02000E-003	1.00000E-005	5.30000E-004	4.80000E-004	0.00000E+000	1.05148E+000	1.05148E+000	3.40000E-004	0.00000E+000	1.05998E+000
Excavators	5.20000E-003	4.22700E-002	4.31300E-002	2.00000E-004	1.42000E-003	1.31000E-003	0.00000E+000	1.73192E+001	1.73192E+001	5.60000E-003	0.00000E+000	1.74593E+001
Forklifts	3.29200E-002	2.99630E-001	3.86340E-001	5.90000E-004	1.60000E-002	1.47200E-002	0.00000E+000	5.17489E+001	5.17489E+001	1.67400E-002	0.00000E+000	5.21673E+001
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	4.37000E-003	5.53600E-002	1.81300E-002	7.00000E-005	1.76000E-003	1.62000E-003	0.00000E+000	6.12557E+000	6.12557E+000	1.98000E-003	0.00000E+000	6.17510E+000
Rollers	1.07000E-003	5.98000E-003	6.37000E-003	1.00000E-005	3.60000E-004	3.30000E-004	0.00000E+000	6.90380E-001	6.90380E-001	2.20000E-004	0.00000E+000	6.95960E-001
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scrapers	4.14000E-002	4.51950E-001	3.22200E-001	7.70000E-004	1.76400E-002	1.62300E-002	0.00000E+000	6.74038E+001	6.74038E+001	2.18000E-002	0.00000E+000	6.79488E+001
Skid Steer Loaders	1.54000E-003	2.05300E-002	3.06700E-002	5.00000E-005	7.60000E-004	7.00000E-004	0.00000E+000	4.01942E+000	4.01942E+000	1.30000E-003	0.00000E+000	4.05192E+000
Tractors/Loaders/Backhoes	7.05000E-003	7.16900E-002	9.57500E-002	1.30000E-004	3.86000E-003	3.55000E-003	0.00000E+000	1.16920E+001	1.16920E+001	3.78000E-003	0.00000E+000	1.17865E+001
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Aerial Lifts	9.72000E-003	1.51030E-001	2.94910E-001	4.50000E-004	2.80000E-003	2.58000E-003	0.00000E+000	3.97688E+001	3.97688E+001	1.28600E-002	0.00000E+000	4.00904E+001
Air Compressors	2.15000E-003	1.47900E-002	1.90400E-002	3.00000E-005	8.60000E-004	8.60000E-004	0.00000E+000	2.68091E+000	2.68091E+000	1.70000E-004	0.00000E+000	2.68528E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Crawler Tractors	9.60000E-004	9.41000E-003	8.02000E-003	1.00000E-005	5.30000E-004	4.80000E-004	0.00000E+000	1.05148E+000	1.05148E+000	3.40000E-004	0.00000E+000	1.05998E+000
Excavators	5.20000E-003	4.22700E-002	4.31300E-002	2.00000E-004	1.42000E-003	1.31000E-003	0.00000E+000	1.73192E+001	1.73192E+001	5.60000E-003	0.00000E+000	1.74593E+001
Forklifts	3.29200E-002	2.99630E-001	3.86340E-001	5.90000E-004	1.60000E-002	1.47200E-002	0.00000E+000	5.17488E+001	5.17488E+001	1.67400E-002	0.00000E+000	5.21672E+001
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	4.37000E-003	5.53600E-002	1.81300E-002	7.00000E-005	1.76000E-003	1.62000E-003	0.00000E+000	6.12557E+000	6.12557E+000	1.98000E-003	0.00000E+000	6.17510E+000
Rollers	1.07000E-003	5.98000E-003	6.37000E-003	1.00000E-005	3.60000E-004	3.30000E-004	0.00000E+000	6.90380E-001	6.90380E-001	2.20000E-004	0.00000E+000	6.95960E-001
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Scrapers	4.14000E-002	4.51950E-001	3.22190E-001	7.70000E-004	1.76400E-002	1.62300E-002	0.00000E+000	6.74037E+001	6.74037E+001	2.18000E-002	0.00000E+000	6.79487E+001
Skid Steer Loaders	1.54000E-003	2.05300E-002	3.06700E-002	5.00000E-005	7.60000E-004	7.00000E-004	0.00000E+000	4.01941E+000	4.01941E+000	1.30000E-003	0.00000E+000	4.05191E+000
Tractors/Loaders/Backhoes	7.05000E-003	7.16900E-002	9.57500E-002	1.30000E-004	3.86000E-003	3.55000E-003	0.00000E+000	1.16920E+001	1.16920E+001	3.78000E-003	0.00000E+000	1.17865E+001
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

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Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Aerial Lifts	0.00000E+000	6.62076E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.25727E-006	1.25727E-006	0.00000E+000	0.00000E+000	1.24718E-006
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.73006E-006	3.73006E-006	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Crawler Tractors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15479E-006	1.15479E-006	0.00000E+000	0.00000E+000	1.14552E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.35269E-006	1.35269E-006	0.00000E+000	0.00000E+000	1.15015E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Scrapers	0.00000E+000	0.00000E+000	3.10366E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18688E-006	1.18688E-006	0.00000E+000	0.00000E+000	1.17736E-006
Skid Steer Loaders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.48792E-006	2.48792E-006	0.00000E+000	0.00000E+000	2.46797E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.55289E-007	8.55289E-007	0.00000E+000	0.00000E+000	8.48428E-007
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	5.00	PM2.5 Reduction	5.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
Yes	Clean Paved Road	% PM Reduction	9.00				

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossroads. See assumptions in AQ/GHG appendix for details.

Area Coating - Based on parking lot only. See assumptions in AQ/GHG appendix for details.

Energy Use -

Water And Wastewater - See assumptions in AQ/GHG appendix for details.

Solid Waste - See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Vehicle Emission Factors -

Vehicle Emission Factors -

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	9567	1825
tblFleetMix	HHD	8.0220e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.7300e-003	5.8740e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	62,710.00	62,713.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,410.00	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	162.52
tblVehicleTrips	ST_TR	1.74	1.41
tblVehicleTrips	SU_TR	1.74	1.41
tblVehicleTrips	WD_TR	1.74	1.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	318,645.00
tblWater	OutdoorWaterUseRate	0.00	7,300.00
tblWater	SepticTankPercent	10.33	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2667	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	75.9687	75.9687	4.7600e-003	6.3000e-004	76.2761
Mobile	0.0602	0.0599	0.6892	1.3700e-003	0.1411	1.0000e-003	0.1421	0.0375	9.2000e-004	0.0384	0.0000	125.8768	125.8768	7.4400e-003	4.4700e-003	127.3943
Waste						0.0000	0.0000		0.0000	0.0000	32.9901	0.0000	32.9901	1.9497	0.0000	81.7316
Water						0.0000	0.0000		0.0000	0.0000	0.1127	0.9785	1.0913	4.5000e-004	2.5000e-004	1.1779
Total	**0.3273**	**0.0631**	**0.6946**	**1.3900e-003**	**0.1411**	**1.2500e-003**	**0.1423**	**0.0375**	**1.1700e-003**	**0.0387**	**33.1028**	**202.8294**	**235.9322**	**1.9623**	**5.3500e-003**	**286.5855**

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	0.2667	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	75.9687	75.9687	4.7600e-003	6.3000e-004	76.2761
Mobile	0.0602	0.0599	0.6892	1.3700e-003	0.1411	1.0000e-003	0.1421	0.0375	9.2000e-004	0.0384	0.0000	125.8768	125.8768	7.4400e-003	4.4700e-003	127.3943
Waste						0.0000	0.0000		0.0000	0.0000	32.9901	0.0000	32.9901	1.9497	0.0000	81.7316
Water						0.0000	0.0000		0.0000	0.0000	0.1127	0.9785	1.0913	4.5000e-004	2.5000e-004	1.1779
Total	**0.3273**	**0.0631**	**0.6946**	**1.3900e-003**	**0.1411**	**1.2500e-003**	**0.1423**	**0.0375**	**1.1700e-003**	**0.0387**	**33.1028**	**202.8294**	**235.9322**	**1.9623**	**5.3500e-003**	**286.5855**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.0602	0.0599	0.6892	1.3700e-003	0.1411	1.0000e-003	0.1421	0.0375	9.2000e-004	0.0384	0.0000	125.8768	125.8768	7.4400e-003	4.4700e-003	127.3943
Unmitigated	0.0602	0.0599	0.6892	1.3700e-003	0.1411	1.0000e-003	0.1421	0.0375	9.2000e-004	0.0384	0.0000	125.8768	125.8768	7.4400e-003	4.4700e-003	127.3943

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,168	378,168
Total	88.24	88.24	88.24	378,168	378,168

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.562615	0.062423	0.190727	0.131078	0.023298	0.005874	0.000000	0.000000	0.000000	0.000000	0.023985	0.000000	0.000000

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	72.4882	72.4882	4.6900e-003	5.7000e-004	72.7749
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	72.4882	72.4882	4.6900e-003	5.7000e-004	72.7749
NaturalGas Mitigated	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012
NaturalGas Unmitigated	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	65221.5	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012
Total		**3.5000e-004**	**3.2000e-003**	**2.6900e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4805**	**3.4805**	**7.0000e-005**	**6.0000e-005**	**3.5012**

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
Unrefrigerated Warehouse-No Rail	65221.5	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012
Total		**3.5000e-004**	**3.2000e-003**	**2.6900e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4805**	**3.4805**	**7.0000e-005**	**6.0000e-005**	**3.5012**

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	26765.2	6.1914	4.0000e-004	5.0000e-005	6.2159
Unrefrigerated Warehouse-No Rail	286598	66.2968	4.2900e-003	5.2000e-004	66.5590
Total		**72.4882**	**4.6900e-003**	**5.7000e-004**	**72.7749**

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	26765.2	6.1914	4.0000e-004	5.0000e-005	6.2159
Unrefrigerated Warehouse-No Rail	286598	66.2968	4.2900e-003	5.2000e-004	66.5590
Total		**72.4882**	**4.6900e-003**	**5.7000e-004**	**72.7749**

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2667	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Unmitigated	0.2667	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2667**	**3.0000e-005**	**2.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2667**	**3.0000e-005**	**2.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.0913	4.5000e-004	2.5000e-004	1.1779
Unmitigated	1.0913	4.5000e-004	2.5000e-004	1.1779

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	0.318645 / 0.0073	1.0913	4.5000e-004	2.5000e-004	1.1779
Total		**1.0913**	**4.5000e-004**	**2.5000e-004**	**1.1779**

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
Unrefrigerated Warehouse-No Rail	0.318645 / 0.0073	1.0913	4.5000e-004	2.5000e-004	1.1779
Total		**1.0913**	**4.5000e-004**	**2.5000e-004**	**1.1779**

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	32.9901	1.9497	0.0000	81.7316
Unmitigated	32.9901	1.9497	0.0000	81.7316

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
Unrefrigerated Warehouse-No Rail	162.52	32.9901	1.9497	0.0000	81.7316
Total		**32.9901**	**1.9497**	**0.0000**	**81.7316**

Existing Baseline_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	162.52	32.9901	1.9497	0.0000	81.7316
Total		**32.9901**	**1.9497**	**0.0000**	**81.7316**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Baseline_Main

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossroads. See assumptions in AQ/GHG appendix for details.

Area Coating - Based on parking lot only. See assumptions in AQ/GHG appendix for details.

Energy Use -

Water And Wastewater - See assumptions in AQ/GHG appendix for details.

Solid Waste - See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Vehicle Emission Factors -

Vehicle Emission Factors -

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	9567	1825
tblFleetMix	HHD	8.0220e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.7300e-003	5.8740e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	62,710.00	62,713.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,410.00	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	162.52
tblVehicleTrips	ST_TR	1.74	1.41
tblVehicleTrips	SU_TR	1.74	1.41
tblVehicleTrips	WD_TR	1.74	1.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	318,645.00
tblWater	OutdoorWaterUseRate	0.00	7,300.00
tblWater	SepticTankPercent	10.33	0.00

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3406	0.2942	3.8835	7.8000e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		790.9500	790.9500	0.0441	0.0252	799.5545
Total	**1.8043**	**0.3120**	**3.9204**	**7.9100e-003**	**0.7906**	**6.8800e-003**	**0.7975**	**0.2098**	**6.4700e-003**	**0.2163**		**812.0195**	**812.0195**	**0.0446**	**0.0256**	**820.7521**

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	lb/day										lb/day					
Area	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3406	0.2942	3.8835	7.8000e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		790.9500	790.9500	0.0441	0.0252	799.5545
Total	**1.8043**	**0.3120**	**3.9204**	**7.9100e-003**	**0.7906**	**6.8800e-003**	**0.7975**	**0.2098**	**6.4700e-003**	**0.2163**		**812.0195**	**812.0195**	**0.0446**	**0.0256**	**820.7521**

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	lb/day										lb/day					
Mitigated	0.3406	0.2942	3.8835	7.8000e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		790.9500	790.9500	0.0441	0.0252	799.5545
Unmitigated	0.3406	0.2942	3.8835	7.8000e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		790.9500	790.9500	0.0441	0.0252	799.5545

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,168	378,168
Total	88.24	88.24	88.24	378,168	378,168

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.562615	0.062423	0.190727	0.131078	0.023298	0.005874	0.000000	0.000000	0.000000	0.000000	0.023985	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
NaturalGas Unmitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	178.689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No	0.178689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

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	lb/day										lb/day					
Mitigated	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Unmitigated	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.4619**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.4619**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

Existing Baseline_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Baseline_Main

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossroads. See assumptions in AQ/GHG appendix for details.

Area Coating - Based on parking lot only. See assumptions in AQ/GHG appendix for details.

Energy Use -

Water And Wastewater - See assumptions in AQ/GHG appendix for details.

Solid Waste - See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Vehicle Emission Factors -

Vehicle Emission Factors -

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	9567	1825
tblFleetMix	HHD	8.0220e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.7300e-003	5.8740e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	62,710.00	62,713.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,410.00	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	162.52
tblVehicleTrips	ST_TR	1.74	1.41
tblVehicleTrips	SU_TR	1.74	1.41
tblVehicleTrips	WD_TR	1.74	1.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	318,645.00
tblWater	OutdoorWaterUseRate	0.00	7,300.00
tblWater	SepticTankPercent	10.33	0.00

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3360	0.3226	3.7376	7.4300e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		753.1571	753.1571	0.0453	0.0268	762.2612
Total	**1.7998**	**0.3403**	**3.7745**	**7.5400e-003**	**0.7906**	**6.8800e-003**	**0.7975**	**0.2098**	**6.4700e-003**	**0.2163**		**774.2266**	**774.2266**	**0.0458**	**0.0271**	**783.4588**

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	lb/day										lb/day					
Area	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3360	0.3226	3.7376	7.4300e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		753.1571	753.1571	0.0453	0.0268	762.2612
Total	**1.7998**	**0.3403**	**3.7745**	**7.5400e-003**	**0.7906**	**6.8800e-003**	**0.7975**	**0.2098**	**6.4700e-003**	**0.2163**		**774.2266**	**774.2266**	**0.0458**	**0.0271**	**783.4588**

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	lb/day										lb/day					
Mitigated	0.3360	0.3226	3.7376	7.4300e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		753.1571	753.1571	0.0453	0.0268	762.2612
Unmitigated	0.3360	0.3226	3.7376	7.4300e-003	0.7906	5.4700e-003	0.7961	0.2098	5.0600e-003	0.2149		753.1571	753.1571	0.0453	0.0268	762.2612

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,168	378,168
Total	88.24	88.24	88.24	378,168	378,168

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.562615	0.062423	0.190727	0.131078	0.023298	0.005874	0.000000	0.000000	0.000000	0.000000	0.023985	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
NaturalGas Unmitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	178.689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	0.178689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

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	lb/day										lb/day					
Mitigated	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Unmitigated	1.4619	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.4619**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.4619**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

Existing Baseline_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Baseline_Trucks

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - See assumptions in AQ/GHG appendix for details.

Area Coating - Modeling mobile-source emissions only.

Energy Use - Modeling mobile-source emissions only.

Water And Wastewater - Modeling mobile-source emissions only.

Solid Waste - Modeling mobile-source emissions only.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	31357	0
tblAreaCoating	Area_Nonresidential_Interior	94070	0
tblAreaCoating	Area_Parking	9567	0
tblEnergyUse	LightingElect	2.38	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.85	0.00
tblEnergyUse	T24NG	1.01	0.00
tblFleetMix	HHD	8.0220e-003	0.50
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7300e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	62,710.00	62,713.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,410.00	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.35
tblVehicleTrips	SU_TR	1.74	0.35
tblVehicleTrips	WD_TR	1.74	0.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	0.00
tblWater	SepticTankPercent	10.33	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	0.2372	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
Mobile	0.0459	1.1824	0.2837	4.3800e-003	0.1461	0.0196	0.1657	0.0421	0.0188	0.0609	0.0000	426.0077	426.0077	0.0144	0.0610	444.5559
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2830**	**1.1824**	**0.2865**	**4.3800e-003**	**0.1461**	**0.0196**	**0.1657**	**0.0421**	**0.0188**	**0.0609**	**0.0000**	**432.2044**	**432.2044**	**0.0148**	**0.0611**	**450.7775**

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2372	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
Mobile	0.0459	1.1824	0.2837	4.3800e-003	0.1461	0.0196	0.1657	0.0421	0.0188	0.0609	0.0000	426.0077	426.0077	0.0144	0.0610	444.5559
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2830**	**1.1824**	**0.2865**	**4.3800e-003**	**0.1461**	**0.0196**	**0.1657**	**0.0421**	**0.0188**	**0.0609**	**0.0000**	**432.2044**	**432.2044**	**0.0148**	**0.0611**	**450.7775**

	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	0.0459	1.1824	0.2837	4.3800e-003	0.1461	0.0196	0.1657	0.0421	0.0188	0.0609	0.0000	426.0077	426.0077	0.0144	0.0610	444.5559
Unmitigated	0.0459	1.1824	0.2837	4.3800e-003	0.1461	0.0196	0.1657	0.0421	0.0188	0.0609	0.0000	426.0077	426.0077	0.0144	0.0610	444.5559

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,294	321,294
Total	22.06	22.06	22.06	321,294	321,294

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	40.01	8.40	6.90	100.00	0.00	0.00	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	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

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	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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
Unrefrigerated Warehouse-No Rail	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
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**

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
Unrefrigerated Warehouse-No Rail	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
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**

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	26765.2	6.1914	4.0000e-004	5.0000e-005	6.2159
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**6.1914**	**4.0000e-004**	**5.0000e-005**	**6.2159**

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	26765.2	6.1914	4.0000e-004	5.0000e-005	6.2159
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**6.1914**	**4.0000e-004**	**5.0000e-005**	**6.2159**

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2372	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Unmitigated	0.2372	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2372**	**3.0000e-005**	**2.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2372**	**3.0000e-005**	**2.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing Baseline_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Baseline_Trucks
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - See assumptions in AQ/GHG appendix for details.

Area Coating - Modeling mobile-source emissions only.

Energy Use - Modeling mobile-source emissions only.

Water And Wastewater - Modeling mobile-source emissions only.

Solid Waste - Modeling mobile-source emissions only.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	31357	0
tblAreaCoating	Area_Nonresidential_Interior	94070	0
tblAreaCoating	Area_Parking	9567	0
tblEnergyUse	LightingElect	2.38	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.85	0.00
tblEnergyUse	T24NG	1.01	0.00
tblFleetMix	HHD	8.0220e-003	0.50
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7300e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	62,710.00	62,713.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,410.00	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.35
tblVehicleTrips	SU_TR	1.74	0.35
tblVehicleTrips	WD_TR	1.74	0.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	0.00
tblWater	SepticTankPercent	10.33	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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2524	6.1536	1.5614	0.0241	0.8160	0.1078	0.9238	0.2346	0.1031	0.3377		2,583.2606	2,583.2606	0.0876	0.3697	2,695.6112
Total	**1.5527**	**6.1538**	**1.5836**	**0.0241**	**0.8160**	**0.1079**	**0.9239**	**0.2346**	**0.1032**	**0.3378**		**2,583.3079**	**2,583.3079**	**0.0877**	**0.3697**	**2,695.6617**

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2524	6.1536	1.5614	0.0241	0.8160	0.1078	0.9238	0.2346	0.1031	0.3377		2,583.2606	2,583.2606	0.0876	0.3697	2,695.6112
Total	**1.5527**	**6.1538**	**1.5836**	**0.0241**	**0.8160**	**0.1079**	**0.9239**	**0.2346**	**0.1032**	**0.3378**		**2,583.3079**	**2,583.3079**	**0.0877**	**0.3697**	**2,695.6617**

	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	lb/day										lb/day					
Mitigated	0.2524	6.1536	1.5614	0.0241	0.8160	0.1078	0.9238	0.2346	0.1031	0.3377		2,583.2606	2,583.2606	0.0876	0.3697	2,695.6112
Unmitigated	0.2524	6.1536	1.5614	0.0241	0.8160	0.1078	0.9238	0.2346	0.1031	0.3377		2,583.2606	2,583.2606	0.0876	0.3697	2,695.6112

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,294	321,294
Total	22.06	22.06	22.06	321,294	321,294

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	40.01	8.40	6.90	100.00	0.00	0.00	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	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	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
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**

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	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
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**

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Unmitigated	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

Existing Baseline_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing Baseline_Trucks

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - See assumptions in AQ/GHG appendix for details.

Area Coating - Modeling mobile-source emissions only.

Energy Use - Modeling mobile-source emissions only.

Water And Wastewater - Modeling mobile-source emissions only.

Solid Waste - Modeling mobile-source emissions only.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	31357	0
tblAreaCoating	Area_Nonresidential_Interior	94070	0
tblAreaCoating	Area_Parking	9567	0
tblEnergyUse	LightingElect	2.38	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.85	0.00
tblEnergyUse	T24NG	1.01	0.00
tblFleetMix	HHD	8.0220e-003	0.50
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7300e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	62,710.00	62,713.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,410.00	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.35
tblVehicleTrips	SU_TR	1.74	0.35
tblVehicleTrips	WD_TR	1.74	0.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	0.00
tblWater	SepticTankPercent	10.33	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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2512	6.3989	1.5667	0.0241	0.8160	0.1079	0.9239	0.2346	0.1032	0.3378		2,583.2581	2,583.2581	0.0875	0.3700	2,695.7081
Total	**1.5515**	**6.3991**	**1.5888**	**0.0241**	**0.8160**	**0.1079**	**0.9240**	**0.2346**	**0.1033**	**0.3379**		**2,583.3054**	**2,583.3054**	**0.0876**	**0.3700**	**2,695.7585**

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2512	6.3989	1.5667	0.0241	0.8160	0.1079	0.9239	0.2346	0.1032	0.3378		2,583.2581	2,583.2581	0.0875	0.3700	2,695.7081
Total	**1.5515**	**6.3991**	**1.5888**	**0.0241**	**0.8160**	**0.1079**	**0.9240**	**0.2346**	**0.1033**	**0.3379**		**2,583.3054**	**2,583.3054**	**0.0876**	**0.3700**	**2,695.7585**

	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	lb/day										lb/day					
Mitigated	0.2512	6.3989	1.5667	0.0241	0.8160	0.1079	0.9239	0.2346	0.1032	0.3378		2,583.2581	2,583.2581	0.0875	0.3700	2,695.7081
Unmitigated	0.2512	6.3989	1.5667	0.0241	0.8160	0.1079	0.9239	0.2346	0.1032	0.3378		2,583.2581	2,583.2581	0.0875	0.3700	2,695.7081

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,294	321,294
Total	22.06	22.06	22.06	321,294	321,294

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	40.01	8.40	6.90	100.00	0.00	0.00	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	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Other Non-Asphalt Surfaces	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Parking Lot	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	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
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**

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	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
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**

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Unmitigated	1.3003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-004**		**0.0504**

Existing Baseline_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0700e-003	2.0000e-004	0.0222	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.3000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0222**	**0.0000**		**8.0000e-**	**8.0000e-005**		**8.0000e-**	**8.0000e-005**		**0.0473**	**0.0473**	**1.3000e-**		**0.0504**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing_Main

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossroads. See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Area Coating - Based on parking lot only. See assumptions in AQ/GHG appendix for details.

Energy Use -

Water And Wastewater - See assumptions in AQ/GHG appendix for details.

Solid Waste - See assumptions in AQ/GHG appendix for details.

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	9567	1825
tblEnergyUse	LightingElect	0.88	0.88
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,412.00	0.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	162.52
tblVehicleTrips	ST_TR	1.74	1.41
tblVehicleTrips	SU_TR	1.74	1.41
tblVehicleTrips	WD_TR	1.74	1.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	318,645.00
tblWater	OutdoorWaterUseRate	0.00	7,300.00
tblWater	SepticTankPercent	10.33	0.00

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2667	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	75.9406	75.9406	4.7600e-003	6.3000e-004	76.2478
Mobile	0.0577	0.0542	0.6469	1.3300e-003	0.1411	9.4000e-004	0.1420	0.0375	8.7000e-004	0.0384	0.0000	122.5073	122.5073	7.1000e-003	4.2100e-003	123.9408
Waste						0.0000	0.0000		0.0000	0.0000	32.9901	0.0000	32.9901	1.9497	0.0000	81.7316
Water						0.0000	0.0000		0.0000	0.0000	0.1127	0.9785	1.0913	4.5000e-004	2.5000e-004	1.1779
Total	**0.3247**	**0.0574**	**0.6524**	**1.3500e-003**	**0.1411**	**1.1900e-003**	**0.1423**	**0.0375**	**1.1200e-003**	**0.0386**	**33.1028**	**199.4317**	**232.5346**	**1.9620**	**5.0900e-003**	**283.1038**

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	0.2667	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	75.9406	75.9406	4.7600e-003	6.3000e-004	76.2478
Mobile	0.0577	0.0542	0.6469	1.3300e-003	0.1411	9.4000e-004	0.1420	0.0375	8.7000e-004	0.0384	0.0000	122.5073	122.5073	7.1000e-003	4.2100e-003	123.9408
Waste						0.0000	0.0000		0.0000	0.0000	32.9901	0.0000	32.9901	1.9497	0.0000	81.7316
Water						0.0000	0.0000		0.0000	0.0000	0.1127	0.9785	1.0913	4.5000e-004	2.5000e-004	1.1779
Total	**0.3247**	**0.0574**	**0.6524**	**1.3500e-003**	**0.1411**	**1.1900e-003**	**0.1423**	**0.0375**	**1.1200e-003**	**0.0386**	**33.1028**	**199.4317**	**232.5346**	**1.9620**	**5.0900e-003**	**283.1038**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.0577	0.0542	0.6469	1.3300e-003	0.1411	9.4000e-004	0.1420	0.0375	8.7000e-004	0.0384	0.0000	122.5073	122.5073	7.1000e-003	4.2100e-003	123.9408
Unmitigated	0.0577	0.0542	0.6469	1.3300e-003	0.1411	9.4000e-004	0.1420	0.0375	8.7000e-004	0.0384	0.0000	122.5073	122.5073	7.1000e-003	4.2100e-003	123.9408

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,186	378,186
Total	88.24	88.24	88.24	378,186	378,186

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

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	72.4601	72.4601	4.6900e-003	5.7000e-004	72.7467
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	72.4601	72.4601	4.6900e-003	5.7000e-004	72.7467
NaturalGas Mitigated	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012
NaturalGas Unmitigated	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	65221.5	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012
Total		**3.5000e-004**	**3.2000e-003**	**2.6900e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4805**	**3.4805**	**7.0000e-005**	**6.0000e-005**	**3.5012**

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
Unrefrigerated Warehouse-No Rail	65221.5	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4805	3.4805	7.0000e-005	6.0000e-005	3.5012
Total		**3.5000e-004**	**3.2000e-003**	**2.6900e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4805**	**3.4805**	**7.0000e-005**	**6.0000e-005**	**3.5012**

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	26643.5	6.1633	4.0000e-004	5.0000e-005	6.1876
Unrefrigerated Warehouse-No Rail	286598	66.2968	4.2900e-003	5.2000e-004	66.5590
Total		**72.4601**	**4.6900e-003**	**5.7000e-004**	**72.7467**

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	26643.5	6.1633	4.0000e-004	5.0000e-005	6.1876
Unrefrigerated Warehouse-No Rail	286598	66.2968	4.2900e-003	5.2000e-004	66.5590
Total		**72.4601**	**4.6900e-003**	**5.7000e-004**	**72.7467**

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2667	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Unmitigated	0.2667	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2667**	**3.0000e-005**	**2.7600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2667**	**3.0000e-005**	**2.7600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.0913	4.5000e-004	2.5000e-004	1.1779
Unmitigated	1.0913	4.5000e-004	2.5000e-004	1.1779

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	0.318645 / 0.0073	1.0913	4.5000e-004	2.5000e-004	1.1779
Total		**1.0913**	**4.5000e-004**	**2.5000e-004**	**1.1779**

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
Unrefrigerated Warehouse-No Rail	0.318645 / 0.0073	1.0913	4.5000e-004	2.5000e-004	1.1779
Total		**1.0913**	**4.5000e-004**	**2.5000e-004**	**1.1779**

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	32.9901	1.9497	0.0000	81.7316
Unmitigated	32.9901	1.9497	0.0000	81.7316

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
Unrefrigerated Warehouse-No Rail	162.52	32.9901	1.9497	0.0000	81.7316
Total		**32.9901**	**1.9497**	**0.0000**	**81.7316**

Existing_Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	162.52	32.9901	1.9497	0.0000	81.7316
Total		**32.9901**	**1.9497**	**0.0000**	**81.7316**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing_Main

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossroads. See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Area Coating - Based on parking lot only. See assumptions in AQ/GHG appendix for details.

Energy Use -

Water And Wastewater - See assumptions in AQ/GHG appendix for details.

Solid Waste - See assumptions in AQ/GHG appendix for details.

Existing_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	9567	1825
tblEnergyUse	LightingElect	0.88	0.88
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,412.00	0.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	162.52
tblVehicleTrips	ST_TR	1.74	1.41
tblVehicleTrips	SU_TR	1.74	1.41
tblVehicleTrips	WD_TR	1.74	1.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	318,645.00
tblWater	OutdoorWaterUseRate	0.00	7,300.00
tblWater	SepticTankPercent	10.33	0.00

Existing_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3261	0.2664	3.6389	7.5600e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		769.6147	769.6147	0.0421	0.0238	777.7519
Total	**1.7899**	**0.2841**	**3.6757**	**7.6700e-003**	**0.7907**	**6.5800e-003**	**0.7973**	**0.2098**	**6.1900e-003**	**0.2160**		**790.6842**	**790.6842**	**0.0426**	**0.0242**	**798.9495**

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	lb/day										lb/day					
Area	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3261	0.2664	3.6389	7.5600e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		769.6147	769.6147	0.0421	0.0238	777.7519
Total	**1.7899**	**0.2841**	**3.6757**	**7.6700e-003**	**0.7907**	**6.5800e-003**	**0.7973**	**0.2098**	**6.1900e-003**	**0.2160**		**790.6842**	**790.6842**	**0.0426**	**0.0242**	**798.9495**

	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

Category	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
	lb/day										lb/day					
Mitigated	0.3261	0.2664	3.6389	7.5600e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		769.6147	769.6147	0.0421	0.0238	777.7519
Unmitigated	0.3261	0.2664	3.6389	7.5600e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		769.6147	769.6147	0.0421	0.0238	777.7519

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,186	378,186
Total	88.24	88.24	88.24	378,186	378,186

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

Existing_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
NaturalGas Mitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
NaturalGas Unmitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	178.689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

Existing_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	0.178689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

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	lb/day										lb/day					
Mitigated	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Unmitigated	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504

Existing_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.4618**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.4618**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

Existing_Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing_Main

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossroads. See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Area Coating - Based on parking lot only. See assumptions in AQ/GHG appendix for details.

Energy Use -

Water And Wastewater - See assumptions in AQ/GHG appendix for details.

Solid Waste - See assumptions in AQ/GHG appendix for details.

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	9567	1825
tblEnergyUse	LightingElect	0.88	0.88
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,412.00	0.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	162.52
tblVehicleTrips	ST_TR	1.74	1.41
tblVehicleTrips	SU_TR	1.74	1.41
tblVehicleTrips	WD_TR	1.74	1.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	318,645.00
tblWater	OutdoorWaterUseRate	0.00	7,300.00
tblWater	SepticTankPercent	10.33	0.00

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3217	0.2921	3.5107	7.2000e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		733.0573	733.0573	0.0432	0.0253	741.6609
Total	**1.7855**	**0.3099**	**3.5475**	**7.3100e-003**	**0.7907**	**6.5800e-003**	**0.7973**	**0.2098**	**6.1900e-003**	**0.2160**		**754.1268**	**754.1268**	**0.0437**	**0.0256**	**762.8585**

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	lb/day										lb/day					
Area	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Mobile	0.3217	0.2921	3.5107	7.2000e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		733.0573	733.0573	0.0432	0.0253	741.6609
Total	**1.7855**	**0.3099**	**3.5475**	**7.3100e-003**	**0.7907**	**6.5800e-003**	**0.7973**	**0.2098**	**6.1900e-003**	**0.2160**		**754.1268**	**754.1268**	**0.0437**	**0.0256**	**762.8585**

	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**

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	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
	lb/day										lb/day					
Mitigated	0.3217	0.2921	3.5107	7.2000e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		733.0573	733.0573	0.0432	0.0253	741.6609
Unmitigated	0.3217	0.2921	3.5107	7.2000e-003	0.7907	5.1700e-003	0.7959	0.2098	4.7800e-003	0.2146		733.0573	733.0573	0.0432	0.0253	741.6609

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		
Unrefrigerated Warehouse-No Rail	88.24	88.24	88.24	378,186	378,186
Total	88.24	88.24	88.24	378,186	378,186

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
NaturalGas Mitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
NaturalGas Unmitigated	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	178.689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	0.178689	1.9300e-003	0.0175	0.0147	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003		21.0223	21.0223	4.0000e-004	3.9000e-004	21.1472
Total		**1.9300e-003**	**0.0175**	**0.0147**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**		**21.0223**	**21.0223**	**4.0000e-004**	**3.9000e-004**	**21.1472**

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	lb/day										lb/day					
Mitigated	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Unmitigated	1.4618	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.4618**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

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	lb/day										lb/day					
Architectural Coating	0.1616					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.4618**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

Existing_Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing_Trucks

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Area Coating - Modeling mobile-source emissions only.

Energy Use - Modeling mobile-source emissions only.

Water And Wastewater - Modeling mobile-source emissions only.

Solid Waste - Modeling mobile-source emissions only.

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	31357	0
tblAreaCoating	Area_Nonresidential_Interior	94070	0
tblAreaCoating	Area_Parking	9567	0
tblEnergyUse	LightingElect	2.38	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.85	0.00
tblEnergyUse	T24NG	1.01	0.00
tblFleetMix	HHD	8.0320e-003	0.50
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,412.00	0.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TTP	59.00	100.00

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.35
tblVehicleTrips	SU_TR	1.74	0.35
tblVehicleTrips	WD_TR	1.74	0.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	0.00
tblWater	SepticTankPercent	10.33	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	0.2372	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
Mobile	0.0281	0.9658	0.2211	4.2400e-003	0.1461	0.0106	0.1567	0.0421	0.0101	0.0523	0.0000	413.7921	413.7921	0.0138	0.0593	431.7933
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2653**	**0.9658**	**0.2239**	**4.2400e-003**	**0.1461**	**0.0106**	**0.1567**	**0.0421**	**0.0102**	**0.0523**	**0.0000**	**419.9889**	**419.9889**	**0.0142**	**0.0593**	**438.0149**

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2372	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
Mobile	0.0281	0.9658	0.2211	4.2400e-003	0.1461	0.0106	0.1567	0.0421	0.0101	0.0523	0.0000	413.7921	413.7921	0.0138	0.0593	431.7933
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2653**	**0.9658**	**0.2239**	**4.2400e-003**	**0.1461**	**0.0106**	**0.1567**	**0.0421**	**0.0102**	**0.0523**	**0.0000**	**419.9889**	**419.9889**	**0.0142**	**0.0593**	**438.0149**

	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	0.0281	0.9658	0.2211	4.2400e-003	0.1461	0.0106	0.1567	0.0421	0.0101	0.0523	0.0000	413.7921	413.7921	0.0138	0.0593	431.7933
Unmitigated	0.0281	0.9658	0.2211	4.2400e-003	0.1461	0.0106	0.1567	0.0421	0.0101	0.0523	0.0000	413.7921	413.7921	0.0138	0.0593	431.7933

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,309	321,309
Total	22.06	22.06	22.06	321,309	321,309

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	40.01	8.40	6.90	100.00	0.00	0.00	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	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.1914	6.1914	4.0000e-004	5.0000e-005	6.2159
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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
Unrefrigerated Warehouse-No Rail	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
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**

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	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
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**

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	26765.2	6.1914	4.0000e-004	5.0000e-005	6.2159
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**6.1914**	**4.0000e-004**	**5.0000e-005**	**6.2159**

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	26765.2	6.1914	4.0000e-004	5.0000e-005	6.2159
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**6.1914**	**4.0000e-004**	**5.0000e-005**	**6.2159**

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	0.2372	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Unmitigated	0.2372	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2372**	**3.0000e-005**	**2.7600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**0.2372**	**3.0000e-005**	**2.7600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Out door 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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Existing_Trucks - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing_Trucks
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Area Coating - Modeling mobile-source emissions only.

Energy Use - Modeling mobile-source emissions only.

Water And Wastewater - Modeling mobile-source emissions only.

Solid Waste - Modeling mobile-source emissions only.

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	31357	0
tblAreaCoating	Area_Nonresidential_Interior	94070	0
tblAreaCoating	Area_Parking	9567	0
tblEnergyUse	LightingElect	2.38	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.85	0.00
tblEnergyUse	T24NG	1.01	0.00
tblFleetMix	HHD	8.0320e-003	0.50
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,412.00	0.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TTP	59.00	100.00

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.35
tblVehicleTrips	SU_TR	1.74	0.35
tblVehicleTrips	WD_TR	1.74	0.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	0.00
tblWater	SepticTankPercent	10.33	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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1550	5.0278	1.2161	0.0234	0.8161	0.0583	0.8744	0.2346	0.0558	0.2904		2,509.1168	2,509.1168	0.0836	0.3589	2,618.1635
Total	**1.4552**	**5.0280**	**1.2382**	**0.0234**	**0.8161**	**0.0584**	**0.8745**	**0.2346**	**0.0559**	**0.2905**		**2,509.1641**	**2,509.1641**	**0.0838**	**0.3589**	**2,618.2139**

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1550	5.0278	1.2161	0.0234	0.8161	0.0583	0.8744	0.2346	0.0558	0.2904		2,509.1168	2,509.1168	0.0836	0.3589	2,618.1635
Total	**1.4552**	**5.0280**	**1.2382**	**0.0234**	**0.8161**	**0.0584**	**0.8745**	**0.2346**	**0.0559**	**0.2905**		**2,509.1641**	**2,509.1641**	**0.0838**	**0.3589**	**2,618.2139**

	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	lb/day										lb/day					
Mitigated	0.1550	5.0278	1.2161	0.0234	0.8161	0.0583	0.8744	0.2346	0.0558	0.2904		2,509.1168	2,509.1168	0.0836	0.3589	2,618.1635
Unmitigated	0.1550	5.0278	1.2161	0.0234	0.8161	0.0583	0.8744	0.2346	0.0558	0.2904		2,509.1168	2,509.1168	0.0836	0.3589	2,618.1635

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,309	321,309
Total	22.06	22.06	22.06	321,309	321,309

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	40.01	8.40	6.90	100.00	0.00	0.00	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	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No	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
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**

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No	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
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**

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Unmitigated	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Existing_Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Existing_Trucks

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.71	1000sqft	1.44	62,713.00	0
Parking Lot	116.00	Space	0.70	30,415.00	0
Other Asphalt Surfaces	2.96	Acre	2.96	129,028.00	0
Other Non-Asphalt Surfaces	34.41	1000sqft	0.79	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity factor 512 lbs/MWh per SCE 2020 Sustainability Report. See assumptions file in AQ/GHG appendix for details.

Land Use - Based on existing uses and project description. See assumptions file in AQ/GHG appendix.

Construction Phase -

Vehicle Trips - See assumptions in AQ/GHG appendix for details.

Fleet Mix - See assumptions in AQ/GHG appendix for details.

Area Coating - Modeling mobile-source emissions only.

Energy Use - Modeling mobile-source emissions only.

Water And Wastewater - Modeling mobile-source emissions only.

Solid Waste - Modeling mobile-source emissions only.

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	31357	0
tblAreaCoating	Area_Nonresidential_Interior	94070	0
tblAreaCoating	Area_Parking	9567	0
tblEnergyUse	LightingElect	2.38	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.85	0.00
tblEnergyUse	T24NG	1.01	0.00
tblFleetMix	HHD	8.0320e-003	0.50
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.50
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	46,400.00	30,415.00
tblLandUse	LandUseSquareFeet	128,937.60	129,028.00
tblLandUse	LandUseSquareFeet	34,412.00	0.00
tblLandUse	LotAcreage	1.04	0.70
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	58.95	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.35
tblVehicleTrips	SU_TR	1.74	0.35
tblVehicleTrips	WD_TR	1.74	0.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	14,501,687.50	0.00
tblWater	SepticTankPercent	10.33	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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1536	5.2300	1.2221	0.0234	0.8161	0.0584	0.8744	0.2346	0.0558	0.2905		2,509.2794	2,509.2794	0.0835	0.3592	2,618.4190
Total	**1.4539**	**5.2302**	**1.2442**	**0.0234**	**0.8161**	**0.0584**	**0.8745**	**0.2346**	**0.0559**	**0.2905**		**2,509.3267**	**2,509.3267**	**0.0837**	**0.3592**	**2,618.4694**

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1536	5.2300	1.2221	0.0234	0.8161	0.0584	0.8744	0.2346	0.0558	0.2905		2,509.2794	2,509.2794	0.0835	0.3592	2,618.4190
Total	**1.4539**	**5.2302**	**1.2442**	**0.0234**	**0.8161**	**0.0584**	**0.8745**	**0.2346**	**0.0559**	**0.2905**		**2,509.3267**	**2,509.3267**	**0.0837**	**0.3592**	**2,618.4694**

	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	lb/day										lb/day					
Mitigated	0.1536	5.2300	1.2221	0.0234	0.8161	0.0584	0.8744	0.2346	0.0558	0.2905		2,509.2794	2,509.2794	0.0835	0.3592	2,618.4190
Unmitigated	0.1536	5.2300	1.2221	0.0234	0.8161	0.0584	0.8744	0.2346	0.0558	0.2905		2,509.2794	2,509.2794	0.0835	0.3592	2,618.4190

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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		
Unrefrigerated Warehouse-No Rail	22.06	22.06	22.06	321,309	321,309
Total	22.06	22.06	22.06	321,309	321,309

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	40.01	8.40	6.90	100.00	0.00	0.00	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	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No Rail	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
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**

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
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
Unrefrigerated Warehouse-No	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
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**

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	lb/day										lb/day					
Mitigated	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Unmitigated	1.3003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0221	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0473	0.0473	1.2000e-004		0.0504
Total	**1.3003**	**2.0000e-004**	**0.0221**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0473**	**0.0473**	**1.2000e-004**		**0.0504**

Existing_Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Operation - Main

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	17.00	1000sqft	0.39	17,000.00	0
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,559.00	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity of 512 lbs/MWh as reported in SCE 2020 Sustainability Report

Land Use - Based on information provided. See assumptions file in the AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossoads. See assumptions file in the AQ/GHG appendix for details.

Water And Wastewater - See assumptions file in the AQ/GHG appendix.

Solid Waste - See assumptions file in the AQ/GHG appendix.

Fleet Mix - See assumptions file in the AQ/GHG appendix for details.

Area Coating - .

Operation - Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	88,426.80	88,559.00
tblLandUse	LandUseSquareFeet	27,980.00	0.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LotAcreage	2.59	2.49

Operation - Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	1.11	0.46
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	21.08	44.06
tblSolidWaste	SolidWasteGenerationRate	106.06	278.69
tblVehicleTrips	ST_TR	6.42	2.93
tblVehicleTrips	ST_TR	1.74	1.31
tblVehicleTrips	SU_TR	5.09	2.93
tblVehicleTrips	SU_TR	1.74	1.31
tblVehicleTrips	WD_TR	3.93	2.93
tblVehicleTrips	WD_TR	1.74	1.31
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	IndoorWaterUseRate	3,931,250.00	155,855.00
tblWater	IndoorWaterUseRate	26,091,937.50	155,855.00
tblWater	OutdoorWaterUseRate	0.00	103,113.00
tblWater	OutdoorWaterUseRate	0.00	103,113.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Operation - Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Energy	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	165.7766	165.7766	9.7500e-003	1.5300e-003	166.4749
Mobile	0.1298	0.1222	1.4586	2.9900e-003	0.3185	2.1200e-003	0.3206	0.0846	1.9600e-003	0.0866	0.0000	276.4983	276.4983	0.0160	9.5000e-003	279.7283
Waste						0.0000	0.0000		0.0000	0.0000	65.5153	0.0000	65.5153	3.8719	0.0000	162.3115
Water						0.0000	0.0000		0.0000	0.0000	0.1103	1.4689	1.5792	4.7000e-004	2.5000e-004	1.6659
Total	**0.6702**	**0.1419**	**1.4788**	**3.1100e-003**	**0.3185**	**3.6300e-003**	**0.3221**	**0.0846**	**3.4700e-003**	**0.0881**	**65.6256**	**443.7507**	**509.3763**	**3.8981**	**0.0113**	**610.1881**

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	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Energy	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	165.7766	165.7766	9.7500e-003	1.5300e-003	166.4749
Mobile	0.1298	0.1222	1.4586	2.9900e-003	0.3185	2.1200e-003	0.3206	0.0846	1.9600e-003	0.0866	0.0000	276.4983	276.4983	0.0160	9.5000e-003	279.7283
Waste						0.0000	0.0000		0.0000	0.0000	65.5153	0.0000	65.5153	3.8719	0.0000	162.3115
Water						0.0000	0.0000		0.0000	0.0000	0.1103	1.4689	1.5792	4.7000e-004	2.5000e-004	1.6659
Total	**0.6702**	**0.1419**	**1.4788**	**3.1100e-003**	**0.3185**	**3.6300e-003**	**0.3221**	**0.0846**	**3.4700e-003**	**0.0881**	**65.6256**	**443.7507**	**509.3763**	**3.8981**	**0.0113**	**610.1881**

Operation - Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1298	0.1222	1.4586	2.9900e-003	0.3185	2.1200e-003	0.3206	0.0846	1.9600e-003	0.0866	0.0000	276.4983	276.4983	0.0160	9.5000e-003	279.7283
Unmitigated	0.1298	0.1222	1.4586	2.9900e-003	0.3185	2.1200e-003	0.3206	0.0846	1.9600e-003	0.0866	0.0000	276.4983	276.4983	0.0160	9.5000e-003	279.7283

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	49.76	49.76	49.76	220,362	220,362
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		
Unrefrigerated Warehouse-No Rail	147.77	147.77	147.77	633,315	633,315
Total	197.54	197.54	197.54	853,677	853,677

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

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	144.3054	144.3054	9.3400e-003	1.1300e-003	144.8762
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	144.3054	144.3054	9.3400e-003	1.1300e-003	144.8762
NaturalGas Mitigated	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4711	21.4711	4.1000e-004	3.9000e-004	21.5987
NaturalGas Unmitigated	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4711	21.4711	4.1000e-004	3.9000e-004	21.5987

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Manufacturing	305320	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.2930	16.2930	3.1000e-004	3.0000e-004	16.3899
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
Unrefrigerated Warehouse-No	97033.8	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1781	5.1781	1.0000e-004	9.0000e-005	5.2089
Total		**2.1700e-003**	**0.0197**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.4711**	**21.4711**	**4.1000e-004**	**3.9000e-004**	**21.5987**

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					
Manufacturing	305320	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.2930	16.2930	3.1000e-004	3.0000e-004	16.3899
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
Unrefrigerated Warehouse-No	97033.8	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1781	5.1781	1.0000e-004	9.0000e-005	5.2089
Total		**2.1700e-003**	**0.0197**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.4711**	**21.4711**	**4.1000e-004**	**3.9000e-004**	**21.5987**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	184620	42.7069	2.7600e-003	3.3000e-004	42.8758
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	7067.55	1.6349	1.1000e-004	1.0000e-005	1.6414
Unrefrigerated Warehouse-No Rail	432139	99.9637	6.4700e-003	7.8000e-004	100.3590
Total		**144.3054**	**9.3400e-003**	**1.1200e-003**	**144.8762**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	184620	42.7069	2.7600e-003	3.3000e-004	42.8758
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	7067.55	1.6349	1.1000e-004	1.0000e-005	1.6414
Unrefrigerated Warehouse-No Rail	432139	99.9637	6.4700e-003	7.8000e-004	100.3590
Total		**144.3054**	**9.3400e-003**	**1.1200e-003**	**144.8762**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Unmitigated	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0617					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Total	**0.5382**	**3.0000e-005**	**3.6200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.0200e-003**	**7.0200e-003**	**2.0000e-005**	**0.0000**	**7.4800e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0617					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Total	**0.5382**	**3.0000e-005**	**3.6200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.0200e-003**	**7.0200e-003**	**2.0000e-005**	**0.0000**	**7.4800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5792	4.7000e-004	2.5000e-004	1.6659
Unmitigated	1.5792	4.7000e-004	2.5000e-004	1.6659

7.2 Water by Land Use

Operation - Main - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0.155855 / 0.103113	0.7896	2.4000e-004	1.3000e-004	0.8330
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
Unrefrigerated Warehouse-No Rail	0.155855 / 0.103113	0.7896	2.4000e-004	1.3000e-004	0.8330
Total		**1.5792**	**4.8000e-004**	**2.6000e-004**	**1.6659**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0.155855 / 0.103113	0.7896	2.4000e-004	1.3000e-004	0.8330
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
Unrefrigerated Warehouse-No Rail	0.155855 / 0.103113	0.7896	2.4000e-004	1.3000e-004	0.8330
Total		**1.5792**	**4.8000e-004**	**2.6000e-004**	**1.6659**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	65.5153	3.8719	0.0000	162.3115
Unmitigated	65.5153	3.8719	0.0000	162.3115

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	44.06	8.9438	0.5286	0.0000	22.1578
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
Unrefrigerated Warehouse-No Rail	278.69	56.5716	3.3433	0.0000	140.1536
Total		**65.5153**	**3.8718**	**0.0000**	**162.3115**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	44.06	8.9438	0.5286	0.0000	22.1578
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
Unrefrigerated Warehouse-No Rail	278.69	56.5716	3.3433	0.0000	140.1536
Total		**65.5153**	**3.8718**	**0.0000**	**162.3115**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Operation - Main

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	17.00	1000sqft	0.39	17,000.00	0
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,559.00	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity of 512 lbs/MWh as reported in SCE 2020 Sustainability Report

Land Use - Based on information provided. See assumptions file in the AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossoads. See assumptions file in the AQ/GHG appendix for details.

Water And Wastewater - See assumptions file in the AQ/GHG appendix.

Solid Waste - See assumptions file in the AQ/GHG appendix.

Fleet Mix - See assumptions file in the AQ/GHG appendix for details.

Area Coating - .

Table Name	Column Name	Default Value	New Value

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	88,426.80	88,559.00
tblLandUse	LandUseSquareFeet	27,980.00	0.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	21.08	44.06
tblSolidWaste	SolidWasteGenerationRate	106.06	278.69
tblVehicleTrips	ST_TR	6.42	2.93
tblVehicleTrips	ST_TR	1.74	1.31
tblVehicleTrips	SU_TR	5.09	2.93
tblVehicleTrips	SU_TR	1.74	1.31
tblVehicleTrips	WD_TR	3.93	2.93
tblVehicleTrips	WD_TR	1.74	1.31
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	IndoorWaterUseRate	3,931,250.00	155,855.00
tblWater	IndoorWaterUseRate	26,091,937.50	155,855.00
tblWater	OutdoorWaterUseRate	0.00	103,113.00
tblWater	OutdoorWaterUseRate	0.00	103,113.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.7336	0.6006	8.2062	0.0171	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,737.0265	1,737.0265	0.0947	0.0536	1,755.3608
Total	**3.6953**	**0.7089**	**8.3259**	**0.0177**	**1.7848**	**0.0200**	**1.8048**	**0.4737**	**0.0191**	**0.4928**		**1,866.7753**	**1,866.7753**	**0.0974**	**0.0560**	**1,885.8845**

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	lb/day										lb/day					
Area	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.7336	0.6006	8.2062	0.0171	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,737.0265	1,737.0265	0.0947	0.0536	1,755.3608
Total	**3.6953**	**0.7089**	**8.3259**	**0.0177**	**1.7848**	**0.0200**	**1.8048**	**0.4737**	**0.0191**	**0.4928**		**1,866.7753**	**1,866.7753**	**0.0974**	**0.0560**	**1,885.8845**

	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**

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	Demolition	8/8/2021	9/3/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
Worker	0.0563	0.0431	0.6471	1.5800e-003	0.1677	1.1500e-003	0.1688	0.0445	1.0600e-003	0.0455		160.3931	160.3931	4.7300e-003	4.0900e-003	161.7304
Total	**0.0563**	**0.0431**	**0.6471**	**1.5800e-003**	**0.1677**	**1.1500e-003**	**0.1688**	**0.0445**	**1.0600e-003**	**0.0455**		**160.3931**	**160.3931**	**4.7300e-003**	**4.0900e-003**	**161.7304**

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	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
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
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
Worker	0.0563	0.0431	0.6471	1.5800e-003	0.1677	1.1500e-003	0.1688	0.0445	1.0600e-003	0.0455		160.3931	160.3931	4.7300e-003	4.0900e-003	161.7304
Total	**0.0563**	**0.0431**	**0.6471**	**1.5800e-003**	**0.1677**	**1.1500e-003**	**0.1688**	**0.0445**	**1.0600e-003**	**0.0455**		**160.3931**	**160.3931**	**4.7300e-003**	**4.0900e-003**	**161.7304**

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	lb/day										lb/day					
Mitigated	0.7336	0.6006	8.2062	0.0171	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,737.0265	1,737.0265	0.0947	0.0536	1,755.3608
Unmitigated	0.7336	0.6006	8.2062	0.0171	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,737.0265	1,737.0265	0.0947	0.0536	1,755.3608

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	49.76	49.76	49.76	220,362	220,362
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		
Unrefrigerated Warehouse-No Rail	147.77	147.77	147.77	633,315	633,315
Total	197.54	197.54	197.54	853,677	853,677

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
NaturalGas Unmitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Manufacturing	836.493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	265.846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

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	lb/day										lb/day					
Manufacturing	0.836493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	0.265846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Unmitigated	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9499**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9499**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Operation - Main - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Operation - Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Operation - Main

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	17.00	1000sqft	0.39	17,000.00	0
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,559.00	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity of 512 lbs/MWh as reported in SCE 2020 Sustainability Report

Land Use - Based on information provided. See assumptions file in the AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossoads. See assumptions file in the AQ/GHG appendix for details.

Water And Wastewater - See assumptions file in the AQ/GHG appendix.

Solid Waste - See assumptions file in the AQ/GHG appendix.

Fleet Mix - See assumptions file in the AQ/GHG appendix for details.

Area Coating - .

Operation - Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	LHD2	5.9120e-003	6.0600e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	88,426.80	88,559.00
tblLandUse	LandUseSquareFeet	27,980.00	0.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LotAcreage	2.59	2.49

Operation - Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	1.11	0.46
tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	21.08	44.06
tblSolidWaste	SolidWasteGenerationRate	106.06	278.69
tblVehicleTrips	ST_TR	6.42	2.93
tblVehicleTrips	ST_TR	1.74	1.31
tblVehicleTrips	SU_TR	5.09	2.93
tblVehicleTrips	SU_TR	1.74	1.31
tblVehicleTrips	WD_TR	3.93	2.93
tblVehicleTrips	WD_TR	1.74	1.31
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	IndoorWaterUseRate	3,931,250.00	155,855.00
tblWater	IndoorWaterUseRate	26,091,937.50	155,855.00
tblWater	OutdoorWaterUseRate	0.00	103,113.00
tblWater	OutdoorWaterUseRate	0.00	103,113.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Operation - Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.7237	0.6586	7.9153	0.0163	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,654.5027	1,654.5027	0.0973	0.0569	1,673.8874
Total	**3.6855**	**0.7669**	**8.0350**	**0.0169**	**1.7848**	**0.0200**	**1.8048**	**0.4737**	**0.0191**	**0.4928**		**1,784.2516**	**1,784.2516**	**0.1000**	**0.0593**	**1,804.4110**

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	lb/day										lb/day					
Area	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.7237	0.6586	7.9153	0.0163	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,654.5027	1,654.5027	0.0973	0.0569	1,673.8874
Total	**3.6855**	**0.7669**	**8.0350**	**0.0169**	**1.7848**	**0.0200**	**1.8048**	**0.4737**	**0.0191**	**0.4928**		**1,784.2516**	**1,784.2516**	**0.1000**	**0.0593**	**1,804.4110**

	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**

Operation - Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	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
	lb/day										lb/day					
Mitigated	0.7237	0.6586	7.9153	0.0163	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,654.5027	1,654.5027	0.0973	0.0569	1,673.8874
Unmitigated	0.7237	0.6586	7.9153	0.0163	1.7848	0.0117	1.7965	0.4737	0.0108	0.4844		1,654.5027	1,654.5027	0.0973	0.0569	1,673.8874

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	49.76	49.76	49.76	220,362	220,362
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		
Unrefrigerated Warehouse-No Rail	147.77	147.77	147.77	633,315	633,315
Total	197.54	197.54	197.54	853,677	853,677

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.560437	0.063426	0.191369	0.130691	0.023481	0.006060	0.000000	0.000000	0.000000	0.000000	0.024535	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
NaturalGas Unmitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Manufacturing	836.493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	265.846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

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	lb/day										lb/day					
Manufacturing	0.836493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	0.265846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

Operation - Main - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Unmitigated	2.9499	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9499**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9499**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
Manufacturing	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,426.80	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity of 512 lbs/MWh as reported in SCE 2020 Sustainability Report

Land Use - Based on information provided. See assumptions file in the AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossoads. See assumptions file in the AQ/GHG appendix for details.

Fleet Mix - See assumptions file in the AQ/GHG appendix for details.

Water And Wastewater - Modeling mobile emissions only.

Solid Waste - Modeling mobile emissions only.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	8.0320e-003	0.57
tblFleetMix	HHD	8.0320e-003	0.57
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.43
tblFleetMix	MHD	0.01	0.43
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LandUseSquareFeet	27,979.00	0.00
tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	21.08	0.00
tblSolidWaste	SolidWasteGenerationRate	106.06	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	1.92
tblVehicleTrips	ST_TR	1.74	0.29
tblVehicleTrips	SU_TR	5.09	1.92
tblVehicleTrips	SU_TR	1.74	0.29
tblVehicleTrips	WD_TR	3.93	1.92
tblVehicleTrips	WD_TR	1.74	0.29
tblWater	IndoorWaterUseRate	3,931,250.00	0.00
tblWater	IndoorWaterUseRate	26,091,937.50	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Energy	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	165.7766	165.7766	9.7500e-003	1.5300e-003	166.4749
Mobile	0.0849	3.0054	0.6689	0.0128	0.4284	0.0311	0.4594	0.1227	0.0297	0.1524	0.0000	1,250.9586	1,250.9586	0.0457	0.1822	1,306.3931
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.6253**	**3.0251**	**0.6891**	**0.0129**	**0.4284**	**0.0326**	**0.4609**	**0.1227**	**0.0312**	**0.1539**	**0.0000**	**1,416.7422**	**1,416.7422**	**0.0555**	**0.1837**	**1,472.8755**

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	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Energy	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	165.7766	165.7766	9.7500e-003	1.5300e-003	166.4749
Mobile	0.0849	3.0054	0.6689	0.0128	0.4284	0.0311	0.4594	0.1227	0.0297	0.1524	0.0000	1,250.9586	1,250.9586	0.0457	0.1822	1,306.3931
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.6253**	**3.0251**	**0.6891**	**0.0129**	**0.4284**	**0.0326**	**0.4609**	**0.1227**	**0.0312**	**0.1539**	**0.0000**	**1,416.7422**	**1,416.7422**	**0.0555**	**0.1837**	**1,472.8755**

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	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	0.0849	3.0054	0.6689	0.0128	0.4284	0.0311	0.4594	0.1227	0.0297	0.1524	0.0000	1,250.9586	1,250.9586	0.0457	0.1822	1,306.3931
Unmitigated	0.0849	3.0054	0.6689	0.0128	0.4284	0.0311	0.4594	0.1227	0.0297	0.1524	0.0000	1,250.9586	1,250.9586	0.0457	0.1822	1,306.3931

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	32.59	32.59	32.59	474,614	474,614
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		
Unrefrigerated Warehouse-No Rail	32.59	32.59	32.59	474,561	474,561
Total	65.17	65.17	65.17	949,175	949,175

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4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	40.01	8.40	6.90	100.00	0.00	0.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	40.01	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000

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	144.3054	144.3054	9.3400e-003	1.1300e-003	144.8762
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	144.3054	144.3054	9.3400e-003	1.1300e-003	144.8762
NaturalGas Mitigated	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4711	21.4711	4.1000e-004	3.9000e-004	21.5987
NaturalGas Unmitigated	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4711	21.4711	4.1000e-004	3.9000e-004	21.5987

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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					
Manufacturing	305320	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.2930	16.2930	3.1000e-004	3.0000e-004	16.3899
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
Unrefrigerated Warehouse-No Rail	97033.8	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1781	5.1781	1.0000e-004	9.0000e-005	5.2089
Total		**2.1700e-003**	**0.0197**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.4711**	**21.4711**	**4.1000e-004**	**3.9000e-004**	**21.5987**

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					
Manufacturing	305320	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.2930	16.2930	3.1000e-004	3.0000e-004	16.3899
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
Unrefrigerated Warehouse-No Rail	97033.8	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1781	5.1781	1.0000e-004	9.0000e-005	5.2089
Total		**2.1700e-003**	**0.0197**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.4711**	**21.4711**	**4.1000e-004**	**3.9000e-004**	**21.5987**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	184620	42.7069	2.7600e-003	3.3000e-004	42.8758
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	7067.55	1.6349	1.1000e-004	1.0000e-005	1.6414
Unrefrigerated Warehouse-No Rail	432139	99.9637	6.4700e-003	7.8000e-004	100.3590
Total		**144.3054**	**9.3400e-003**	**1.1200e-003**	**144.8762**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	184620	42.7069	2.7600e-003	3.3000e-004	42.8758
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	7067.55	1.6349	1.1000e-004	1.0000e-005	1.6414
Unrefrigerated Warehouse-No Rail	432139	99.9637	6.4700e-003	7.8000e-004	100.3590
Total		**144.3054**	**9.3400e-003**	**1.1200e-003**	**144.8762**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Unmitigated	0.5382	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0617					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Total	**0.5382**	**3.0000e-005**	**3.6200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.0200e-003**	**7.0200e-003**	**2.0000e-005**	**0.0000**	**7.4800e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0617					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4762					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.0200e-003	7.0200e-003	2.0000e-005	0.0000	7.4800e-003
Total	**0.5382**	**3.0000e-005**	**3.6200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.0200e-003**	**7.0200e-003**	**2.0000e-005**	**0.0000**	**7.4800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Operation - Trucks

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
Manufacturing	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,426.80	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity of 512 lbs/MWh as reported in SCE 2020 Sustainability Report

Land Use - Based on information provided. See assumptions file in the AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossoads. See assumptions file in the AQ/GHG appendix for details.

Fleet Mix - See assumptions file in the AQ/GHG appendix for details.

Water And Wastewater - Modeling mobile emissions only.

Solid Waste - Modeling mobile emissions only.

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	8.0320e-003	0.57
tblFleetMix	HHD	8.0320e-003	0.57
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.43
tblFleetMix	MHD	0.01	0.43
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LandUseSquareFeet	27,979.00	0.00
tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	21.08	0.00
tblSolidWaste	SolidWasteGenerationRate	106.06	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	1.92
tblVehicleTrips	ST_TR	1.74	0.29
tblVehicleTrips	SU_TR	5.09	1.92
tblVehicleTrips	SU_TR	1.74	0.29
tblVehicleTrips	WD_TR	3.93	1.92
tblVehicleTrips	WD_TR	1.74	0.29
tblWater	IndoorWaterUseRate	3,931,250.00	0.00
tblWater	IndoorWaterUseRate	26,091,937.50	0.00

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.4684	15.6501	3.6764	0.0704	2.3925	0.1708	2.5633	0.6836	0.1634	0.8470		7,585.4100	7,585.4100	0.2773	1.1038	7,921.2725
Total	**3.4301**	**15.7584**	**3.7961**	**0.0710**	**2.3925**	**0.1791**	**2.5716**	**0.6836**	**0.1717**	**0.8553**		**7,715.1589**	**7,715.1589**	**0.2799**	**1.1062**	**8,051.7961**

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	lb/day										lb/day					
Area	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.4684	15.6501	3.6764	0.0704	2.3925	0.1708	2.5633	0.6836	0.1634	0.8470		7,585.4100	7,585.4100	0.2773	1.1038	7,921.2725
Total	**3.4301**	**15.7584**	**3.7961**	**0.0710**	**2.3925**	**0.1791**	**2.5716**	**0.6836**	**0.1717**	**0.8553**		**7,715.1589**	**7,715.1589**	**0.2799**	**1.1062**	**8,051.7961**

	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**

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	0.4684	15.6501	3.6764	0.0704	2.3925	0.1708	2.5633	0.6836	0.1634	0.8470		7,585.4100	7,585.4100	0.2773	1.1038	7,921.2725
Unmitigated	0.4684	15.6501	3.6764	0.0704	2.3925	0.1708	2.5633	0.6836	0.1634	0.8470		7,585.4100	7,585.4100	0.2773	1.1038	7,921.2725

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	32.59	32.59	32.59	474,614	474,614
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		
Unrefrigerated Warehouse-No Rail	32.59	32.59	32.59	474,561	474,561
Total	65.17	65.17	65.17	949,175	949,175

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	40.01	8.40	6.90	100.00	0.00	0.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	40.01	8.40	6.90	100.00	0.00	0.00	100	0	0

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
NaturalGas Unmitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Manufacturing	836.493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	265.846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

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	lb/day										lb/day					
Manufacturing	0.836493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	0.265846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Unmitigated	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6091					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9498**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6091					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9498**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Operation - Trucks - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Operation - Trucks
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	112.83	1000sqft	2.49	112,830.00	0
Manufacturing	17.00	1000sqft	0.39	17,000.00	0
Parking Lot	123.00	Space	0.46	20,193.00	0
Other Asphalt Surfaces	2.03	Acre	2.03	88,426.80	0
Other Non-Asphalt Surfaces	27.98	1000sqft	0.64	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	509.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on CO2e intensity of 512 lbs/MWh as reported in SCE 2020 Sustainability Report

Land Use - Based on information provided. See assumptions file in the AQ/GHG appendix.

Construction Phase -

Vehicle Trips - Based on information provided by Urban Crossoads. See assumptions file in the AQ/GHG appendix for details.

Fleet Mix - See assumptions file in the AQ/GHG appendix for details.

Water And Wastewater - Modeling mobile emissions only.

Solid Waste - Modeling mobile emissions only.

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	8.0320e-003	0.57
tblFleetMix	HHD	8.0320e-003	0.57
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.43
tblFleetMix	MHD	0.01	0.43
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblLandUse	LandUseSquareFeet	49,200.00	20,193.00
tblLandUse	LandUseSquareFeet	27,979.00	0.00
tblLandUse	LotAcreage	2.59	2.49
tblLandUse	LotAcreage	1.11	0.46

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	509.98
tblSolidWaste	SolidWasteGenerationRate	21.08	0.00
tblSolidWaste	SolidWasteGenerationRate	106.06	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TL	16.60	40.01
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	1.92
tblVehicleTrips	ST_TR	1.74	0.29
tblVehicleTrips	SU_TR	5.09	1.92
tblVehicleTrips	SU_TR	1.74	0.29
tblVehicleTrips	WD_TR	3.93	1.92
tblVehicleTrips	WD_TR	1.74	0.29
tblWater	IndoorWaterUseRate	3,931,250.00	0.00
tblWater	IndoorWaterUseRate	26,091,937.50	0.00

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.4640	16.2784	3.6977	0.0704	2.3925	0.1709	2.5634	0.6836	0.1635	0.8471		7,586.0034	7,586.0034	0.2769	1.1047	7,922.1113
Total	**3.4257**	**16.3867**	**3.8174**	**0.0710**	**2.3925**	**0.1792**	**2.5718**	**0.6836**	**0.1718**	**0.8554**		**7,715.7522**	**7,715.7522**	**0.2796**	**1.1070**	**8,052.6349**

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	lb/day										lb/day					
Area	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Energy	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
Mobile	0.4640	16.2784	3.6977	0.0704	2.3925	0.1709	2.5634	0.6836	0.1635	0.8471		7,586.0034	7,586.0034	0.2769	1.1047	7,922.1113
Total	**3.4257**	**16.3867**	**3.8174**	**0.0710**	**2.3925**	**0.1792**	**2.5718**	**0.6836**	**0.1718**	**0.8554**		**7,715.7522**	**7,715.7522**	**0.2796**	**1.1070**	**8,052.6349**

	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**

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	0.4640	16.2784	3.6977	0.0704	2.3925	0.1709	2.5634	0.6836	0.1635	0.8471		7,586.0034	7,586.0034	0.2769	1.1047	7,922.1113
Unmitigated	0.4640	16.2784	3.6977	0.0704	2.3925	0.1709	2.5634	0.6836	0.1635	0.8471		7,586.0034	7,586.0034	0.2769	1.1047	7,922.1113

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	32.59	32.59	32.59	474,614	474,614
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		
Unrefrigerated Warehouse-No Rail	32.59	32.59	32.59	474,561	474,561
Total	65.17	65.17	65.17	949,175	949,175

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	40.01	8.40	6.90	100.00	0.00	0.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	40.01	8.40	6.90	100.00	0.00	0.00	100	0	0

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Other Non-Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430769	0.569231	0.000000	0.000000	0.000000	0.000000	0.000000

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	lb/day										lb/day					
NaturalGas Mitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576
NaturalGas Unmitigated	0.0119	0.1081	0.0908	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6870	129.6870	2.4900e-003	2.3800e-003	130.4576

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Manufacturing	836.493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	265.846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

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	lb/day										lb/day					
Manufacturing	0.836493	9.0200e-003	0.0820	0.0689	4.9000e-004		6.2300e-003	6.2300e-003		6.2300e-003	6.2300e-003		98.4110	98.4110	1.8900e-003	1.8000e-003	98.9958
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
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
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
Unrefrigerated Warehouse-No Rail	0.265846	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2760	31.2760	6.0000e-004	5.7000e-004	31.4619
Total		**0.0119**	**0.1081**	**0.0908**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6870**	**129.6870**	**2.4900e-003**	**2.3700e-003**	**130.4576**

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Mitigated	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Unmitigated	2.9498	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6091					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9498**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Architectural Coating	0.3380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6091					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6900e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0619	0.0619	1.6000e-004		0.0660
Total	**2.9498**	**2.6000e-004**	**0.0289**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0619**	**0.0619**	**1.6000e-004**		**0.0660**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Operation - Trucks - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Appendix B Health Risk Assessment

Appendix

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August 2021 | Health Risk Assessment

4416 AZUSA CANYON ROAD

City of Irwindale

Prepared for:

City of Irwindale
Contact: Brandi Jones, Senior Planner
5050 Irwindale Avenue
Irwindale, California 91706
626.430.2260

Prepared by:

PlaceWorks
Contact: Steve Bush, PE, Senior Engineer
Dina El Chammas Gass, PE, Senior Engineer
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
714.966.9220
info@placeworks.com
www.placeworks.com

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1. Introduction

Rexford Industrial Realty proposes to develop the 5.89-acre project site with a stand-alone concrete tilt-up warehouse, office, and manufacturing facility at 4416 Azusa Canyon Road (proposed project). The site's development would involve demolition of the existing Pepsi Bottling Group building on-site, which ceased operation on December 5, 2020.

There are air quality sensitive receptors within 1,000 feet of the project, including a single-family residence approximately 550 feet north on East Cypress Street and a mobile home park approximately 700 feet to the southwest. Additionally, Manzanita Elementary School is approximately 1,075 feet to the southeast of the project site. Operation of the proposed project would generate diesel particulate matter (DPM, a toxic air contaminant) emissions due to trucking- and warehouse-related activity in proximity to these nearby sensitive receptors. As recommended under the guidelines of "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" prepared by the Office of the Attorney General of California, an operational health risk assessment (HRA) was conducted to evaluate potential health risk impacts from project-related truck trips and other project-related sources of DPM to the nearby surrounding sensitive receptors (OAG 2021). Guidance from the California Environmental Protection Agency (CalEPA), Office of Environmental Health Hazard Assessment (OEHHA), California Air Pollution Control Officers Association (CAPCOA), and the South Coast Air Quality Management District (South Coast AQMD) was used to complete the HRA.

Air dispersion modeling was conducted using the AERMOD atmospheric dispersion model (Lakes AERMOD View, version 10.0.1). The health risk calculations were performed using California Air Resources Board's (CARB) Hot Spots Analysis and Reporting Program, version 2 (HARP2), Risk Assessment Standalone Tool (CARB 2021a). HARP2 includes the current OEHHA toxicity factor database to calculate cancer risks and noncancer health hazards for various receptor types.

This HRA considers the health impact to sensitive receptors from diesel trucks and diesel-fueled off-road equipment (i.e., forklifts and yard trucks). Health impacts were based on conservative (i.e., health protective) assumptions. The United States Environmental Protection Agency (USEPA 2005) and 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 do not necessarily represent actual risks experienced by populations near a site. The use of conservative assumptions tends to produce upper-bound estimates of risk and usually overestimate exposure and thus risk.

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

- It was assumed that maximum exposed children and adults stood outside at the site for 24 hours per day, 350 days per year. In reality, California residents typically spend, on average, 2 hours per day outdoors at their residences (USEPA 2011). This would result in lower estimated risk values.

1. Introduction

- The calculated risk for infants from third trimester to age 2 years is multiplied by a factor of 10 and for children from 2 to 16 years is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA 2015).

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

- It was assumed that elementary school students stood outside for 250 days per year for 7 years—ages 4 to 10 years, in transitional kindergarten to grade 5 at Manzanita Elementary School. In reality, students are exposed to outdoor pollutant concentration levels for part of the day and to reduced indoor pollutant concentrations for the remaining hours.

- The calculated risk for children from ages 2 to 16 years is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA 2015).

2. Project Description

The proposed project involves the operation of a new warehouse and manufacturing facility on a currently developed site. The warehouse and manufacturing businesses (prospective tenants are unknown at this time) would operate out of a proposed 129,830-square-foot building comprising 17,000 square feet of manufacturing space, 103,670 square feet of warehousing space, and 9,160 square feet of ancillary office space to support the industrial and warehousing tenant(s). The proposed project would also include 18 dock-door positions in a secured truck court area on the southeastern side of the site. Other project components include vehicular and pedestrian access and circulation improvements; asphalt parking areas; utility and infrastructure improvements; and various hardscape and landscape improvements. Opening year is projected to be 2022. The proposed operating hours of the potential business(es) that may occupy the building is 24 hours per day, seven days a week. Although specific end users have not been established at this time, the project applicant has specified that cold storage uses would not be allowed at the warehouse. Therefore, no transport refrigeration units were evaluated in this assessment.

The conceptual site plan for the proposed project is shown in Figure 1, *Conceptual Site Plan*.

2. Project Description

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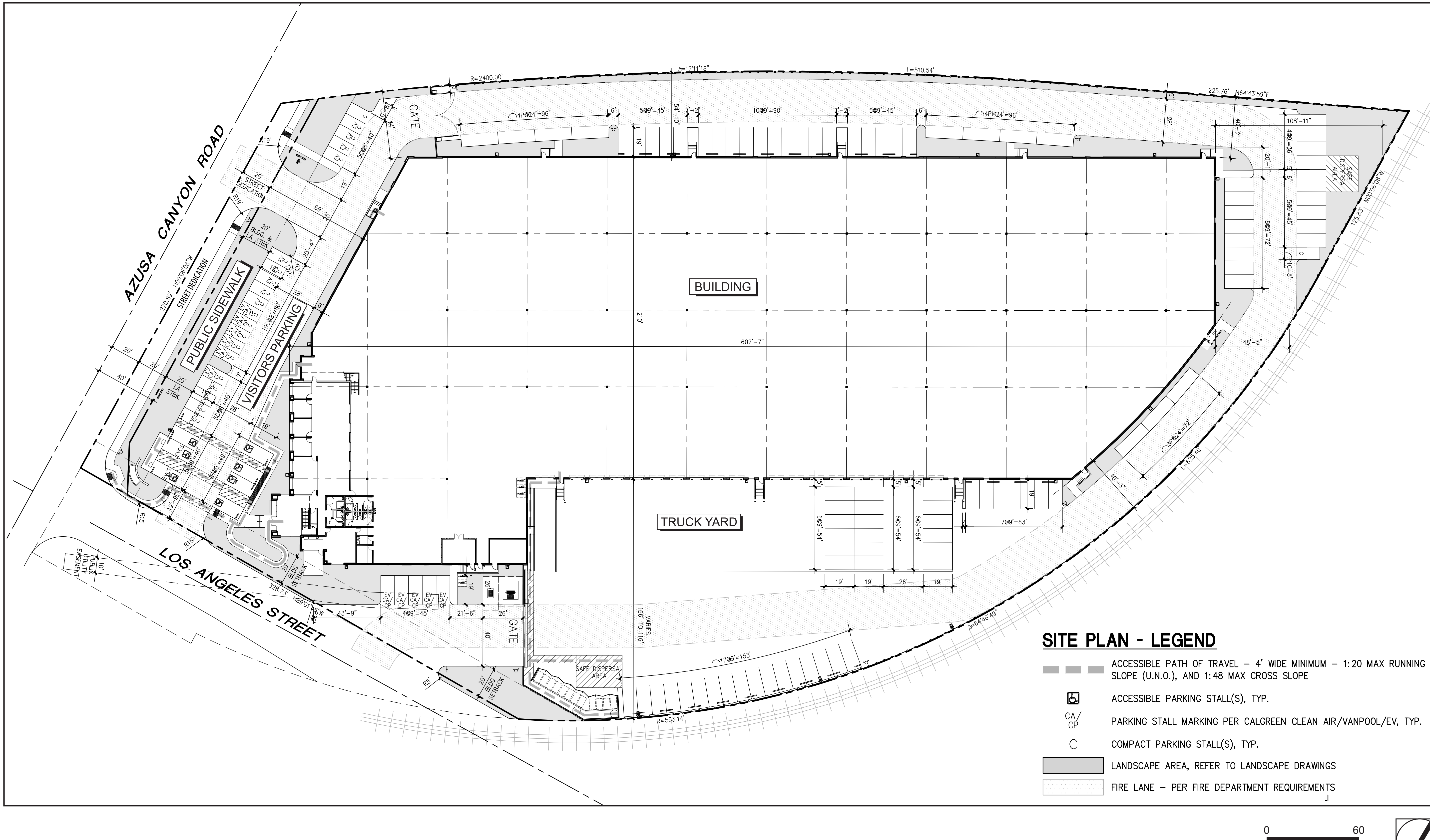
Figure 1 - Conceptual Site Plan



Source: GAA Architects, 2021

2. Project Description

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3. Existing Setting

3.1 SITE LOCATION

The project site is in the southeastern portion of the City of Irwindale in Los Angeles County. The city is approximately 20 miles east of downtown Los Angeles, with neighboring cities of West Covina, Baldwin Park, Vincent, Azusa, Duarte, El Monte, North El Monte, and Monrovia. The project site is at the northeastern corner of the Azusa Canyon Road/Los Angeles Street intersection—it is bounded by Big Dalton Wash to the north, Los Angeles County Metro railroad to the south, Los Angeles Street to the south, a railroad spur to the east, and Azusa Canyon Road to the west.

3.2 SURROUNDING USES

The project site is immediately surrounded by business and industrial uses to the north, east, and south. The Olive Pit mining quarry and City Public Works yard are west of Azusa Canyon Road. Residential areas are within a 1,000-foot radius to the northeast, southeast, and south of the project site. Additional residences (mobile home park) are approximately 700 feet to the southwest. There is a single-family residence approximately 530 feet to the north on East Cypress Street, and the Manzanita Elementary School is approximately 1,075 feet southeast of the site. The proposed development site and the surrounding area are shown in Figure 2, *Site Location*.

3.3 DISADVANTAGED COMMUNITIES / ENVIRONMENTAL JUSTICE AREAS

In 2016, the California Legislature passed Senate Bill 1000 (SB 1000), Planning for Healthy Communities Act, to incorporate environmental justice into the local land use planning process. SB 1000's definition of a disadvantaged community includes areas that:

- Are disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation;
- And have concentrations of people with low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

The California Communities Environmental Health Screening Tool (CalEnviroScreen or CES) was developed by OEHHA on behalf of CalEPA. CES is a method for identifying communities that are disproportionately burdened by pollution and/or have disproportionately vulnerable populations in those communities.

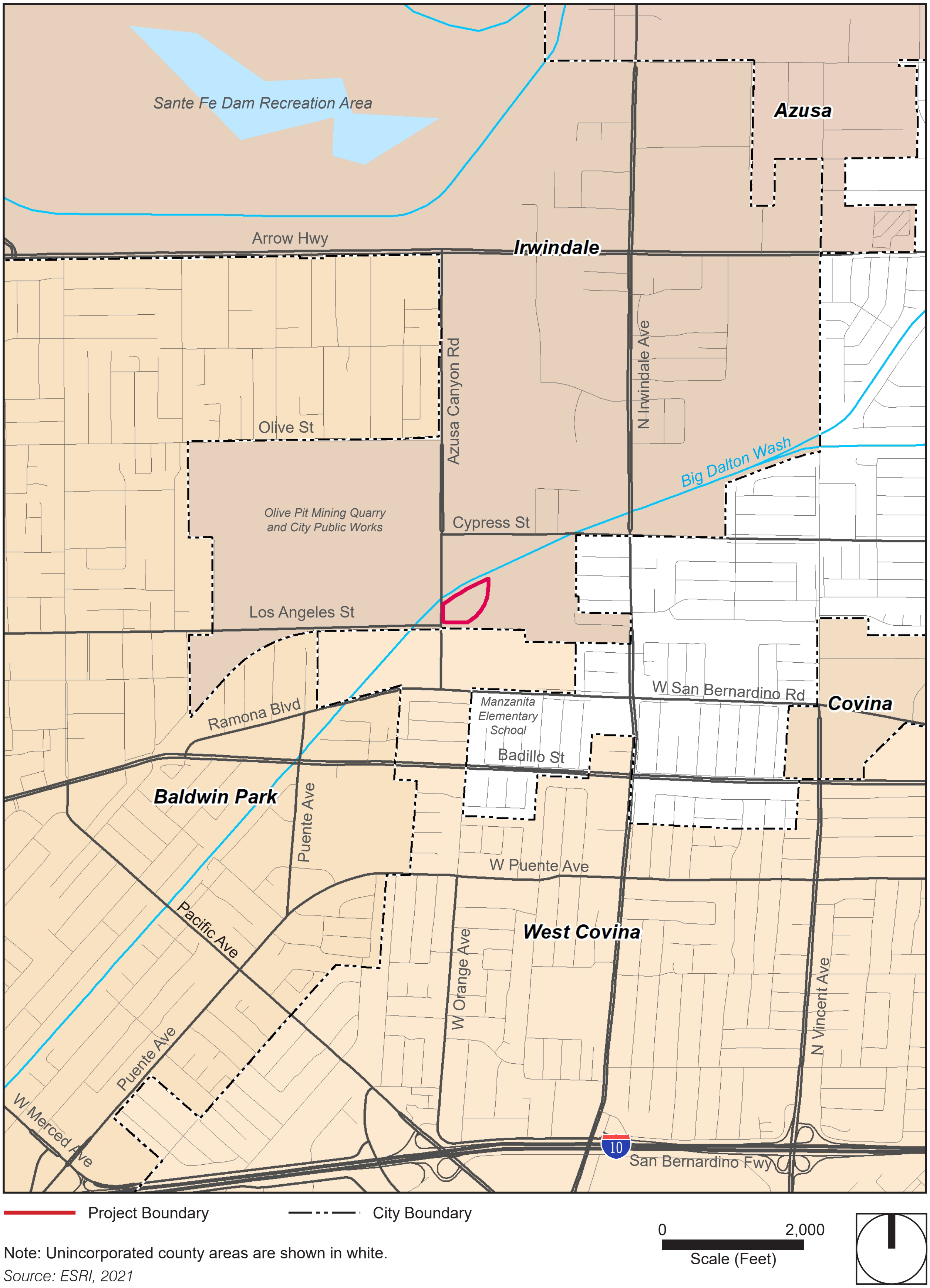
CES generates a composite score that assesses disproportionate impacts on California communities. It uses 21 indicators across four categories—pollution exposure, environmental effects, sensitive populations, and

3. Existing Setting

socioeconomic factors. These categories are summed into two primary metrics—pollution burden and population characteristics—which CES multiplies to arrive at the CES composite score. Pollution burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution. Population characteristics represent biological traits, health status, or community characteristics that can result in increased vulnerability to pollution. The results for each census tract are measured against every other census tract in California. The outcome is a scale that sorts census tracts from the least impacted to the most impacted as a ranked percentile. Disadvantaged communities are defined as those scoring in the top 25 percent using CES (OEHHA 2018). As shown in Figure 3, *Disadvantaged Communities,* the project site is within a disadvantaged community.

Figure 3, *Pollution Burden*, shows the pollution burden for the project site and vicinity relative to California. The pollution burden map identifies communities that are exposed to pollution from human activities, such as air pollution (ozone, $PM_{2.5}$, DPM), water pollution (drinking water contaminants), and hazardous materials (pesticide use, children's lead exposure, toxic releases), and traffic density. This metric represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution. As shown in Figure 4, the project site is in a census tract that ranks in the 80th to 90th percentile (85th percentile) for pollution burden.

Figure 2 - Site Location



Note: Unincorporated county areas are shown in white.

Source: ESRI, 2021

PlaceWorks

3. Existing Setting

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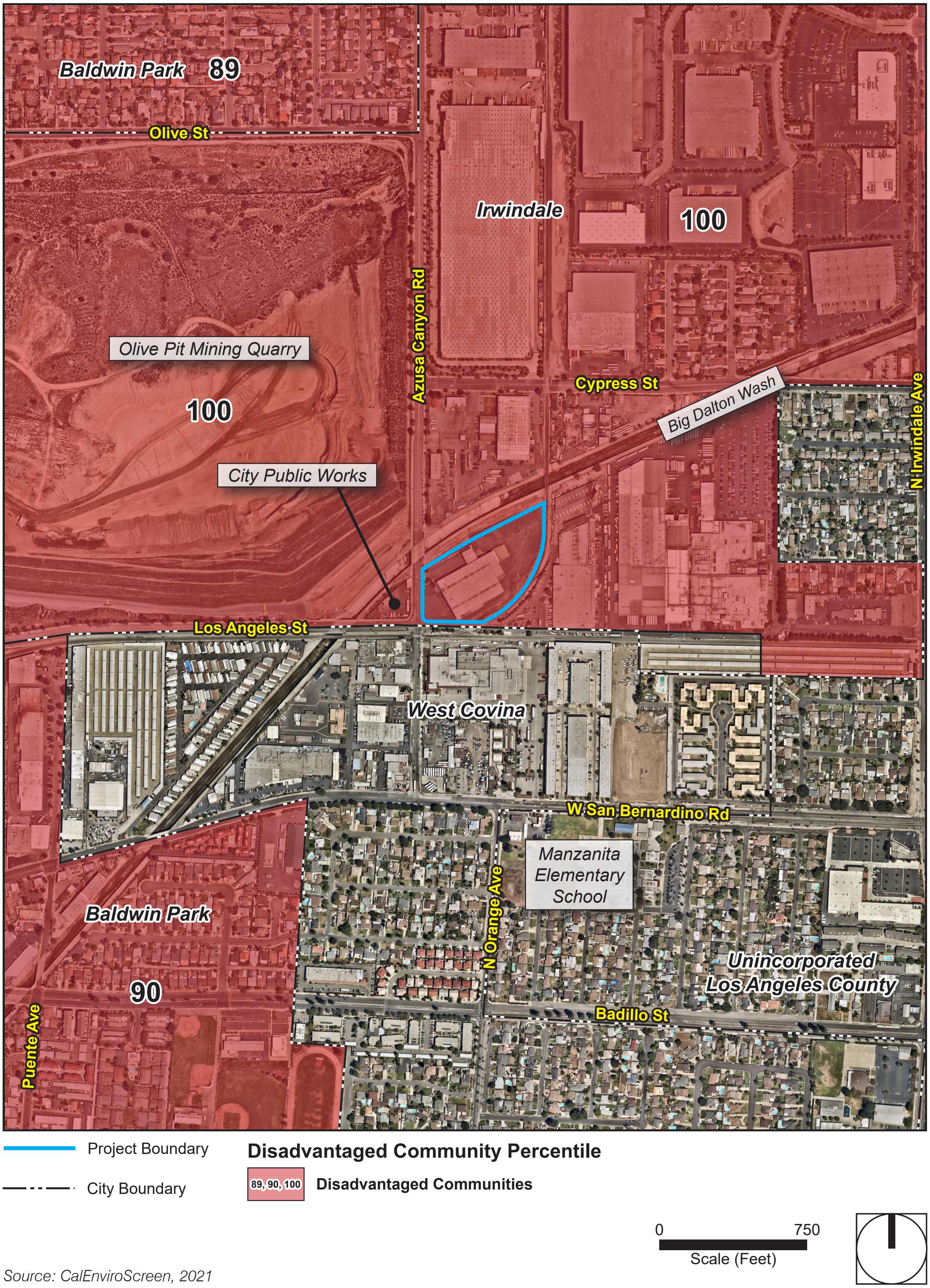
Figure 3 - Disadvantaged Communities



Source: CalEnviroScreen, 2021

3. Existing Setting

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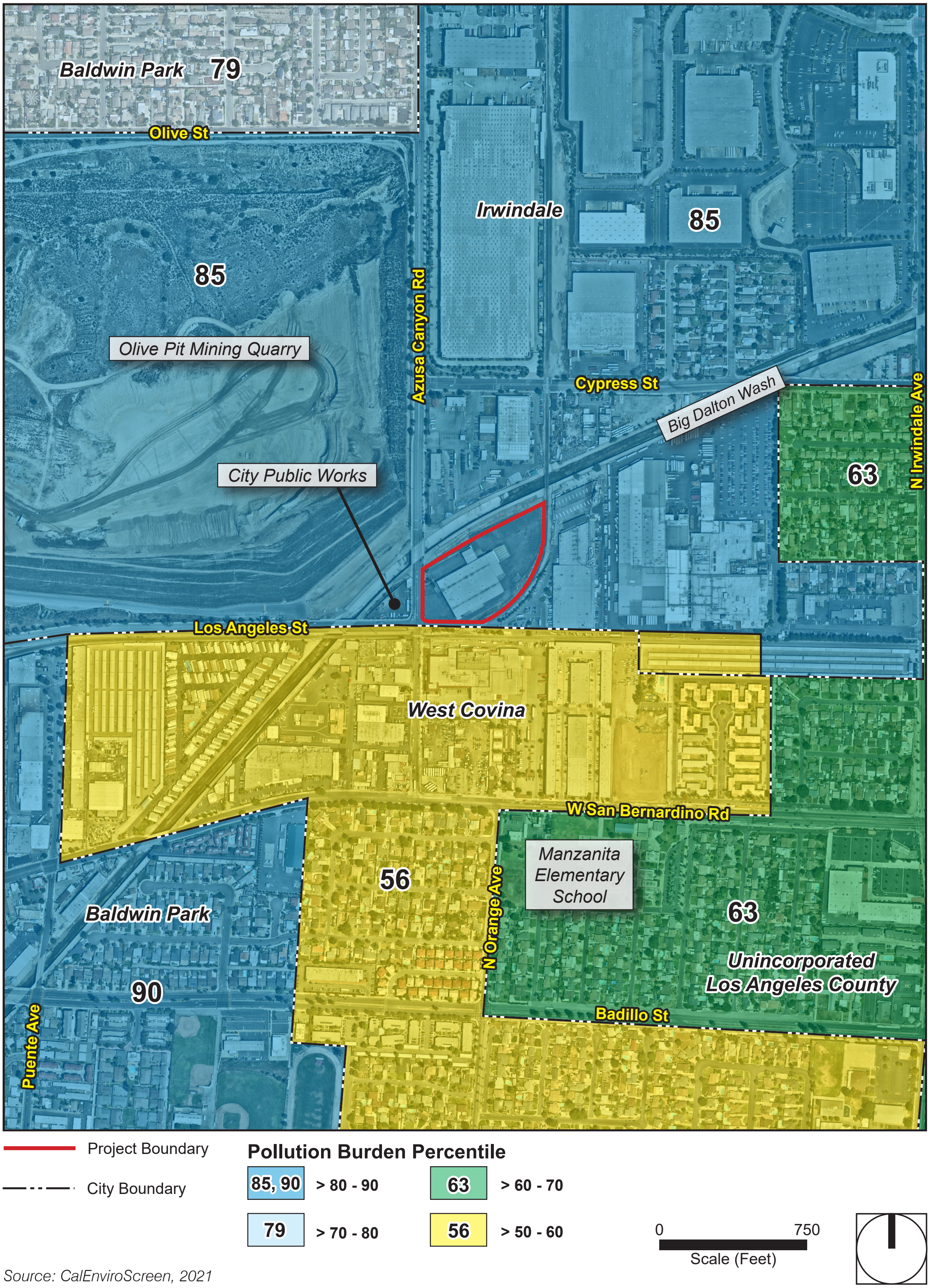
Figure 4 - Pollution Burden



Source: CalEnviroScreen, 2021

3. Existing Setting

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4. Emissions Inventory

Operational emission sources evaluated in the HRA include the diesel trucks traveling on-site over the ingress and egress driveways and idling at truck loading areas as well as the emissions from diesel trucks traveling to and from the site along surface streets (Azusa Canyon Road and Los Angeles Street). The evaluated truck volumes and truck fleet mix were prepared by Urban Crossroads and incorporated into the air quality and greenhouse gas emissions evaluation of the proposed project (Urban Crossroads 2021). According to the traffic analysis, the project would generate 28 one-way trips per day for 2-axle and 3-axle trucks and 37 one-way trips per day for 4+axle trucks (Urban Crossroads 2021). The emission rate calculations are provided in Appendix A.

Localized (on-site) truck running and idling emissions were calculated for the HRA. CARB has developed the EMFAC2021 emission factor model to account for the emission standards representative of the California fleet (CARB 2021b). Idling emission rates for trucks idling within the building loading areas were determined using an idling time of 30 minutes per truck. The PM_{10} emission factor for diesel-fueled vehicles was used as the surrogate for DPM (CARB 2021b).

Emissions from forklifts and yard trucks were determined for the air quality and greenhouse gas emissions evaluation (PlaceWorks 2021). The proposed project modeling accounted for 10 diesel-powered yard trucks and 5 diesel-powered forklifts operating 7 hours per unit per day.[1] Forklift and yard truck emissions were calculated as annual average emissions in tons per year using the latest version of California Emissions Estimation Model, CalEEMod version 2020.4 (CAPCOA 2021).

Emission-rate calculations were based on EMFAC2021 and OFFROAD2017 emissions data for the project buildout year (2022). Using only the emission factors for the year 2022 is conservative because emissions are predicted to decline over time with implementation of CARB's Diesel Risk Reduction Plan and increasing emissions requirements for engines (CARB 2000). For instance, CARB estimates DPM emissions in 2035 will be less than half those in 2010 (CARB 2021c).

[1] Based on information provided by the project applicant. It is assumed the proposed uses would be in operation 24 hours per day and 7 days a week. However, while forklifts and yard trucks would be available and on standby for use during operating hours, it is not anticipated that these pieces of equipment would operate continuously throughout the entirely of the 24-hour/7-day operating hours. Thus, the equipment operating hours of 7 hours per day per unit represent the total cumulative hours each piece of off-road equipment would be in use per day.

4. Emissions Inventory

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5. Air Dispersion Modeling

Air dispersion modeling was performed using the AERMOD atmospheric dispersion model (Lakes AERMOD View, version 10.0.1). The model is a steady-state Gaussian plume model and is approved by South Coast AQMD for estimating ground-level impacts from point and fugitive sources in simple and complex terrain. The on-site emissions from truck travel, truck idling, forklifts, and yard trucks were modeled as polyarea sources. The off-site truck travel emissions were modeled as adjacent volume sources. The off-site truck route includes surface streets (Azusa Canyon Road and Los Angeles Street). A 10-meter by 10-meter receptor grid was used for receptors within approximately 1,000 feet of the proposed site. Additional receptors were modeled at the northern boundary of the Manzanita Elementary School site, approximately 1,075 feet from the project site.

The model requires additional input parameters, including local meteorology and terrain. AERMOD-ready meteorological (met) data was obtained from South Coast AQMD for the nearest representative met station with the five latest available years of record (Azusa 2012–2016) to represent local weather conditions and prevailing winds. The prevailing wind direction at the Azusa met station is to the east-northeast, and the wind rose is provided in Appendix B.

The modeling also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Digital elevation model data for the project site and surrounding area were obtained and included in the model runs to account for complex terrain. An emissions release height of 4.15 meters was used as representative of the stack exhaust height for off-road equipment and diesel truck traffic, and an initial vertical dispersion parameter of 1.93 meters was used, per CARB guidance (CARB 2000). In evaluating yard equipment (i.e., yard trucks and forklifts), the variable emissions module was utilized in AERMOD to account for the evaluated activity hours of 7 hours per day, 7 days per week.

A unit emission rate of 1 gram per second was used for all emission sources to obtain normalized pollutant concentrations per unit emission rate, which are necessary for input into the risk assessment model (HARP2). The AERMOD model output for the emission sources is in Appendix B.

5. Air Dispersion Modeling

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6. Risk Methodology

6.1 CARCINOGENIC CHEMICAL RISK

Carcinogenic compounds do not have threshold levels (i.e., dose levels below which there are no risks). Therefore, any exposure will have some associated risk. The South Coast AQMD has established a maximum incremental cancer risk of 10 in a million (1×10^{-5} or 10×10^{-6}) for California Environmental Quality Act (CEQA) projects, and the OEHHA also sets a typical risk management level as 10 in a million (OEHHA 2015).

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 ($\mu g/m^3$) averaged 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 (ASF) 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, the following dose algorithm was used to accommodate the unique exposures associated with each receptor type.

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

where:

$\mathrm{Dose}_{\mathrm{AIR}}$	=	dose by inhalation (mg/kg/day), per age group
C_{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 (1×10^{-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). This timeline is considered appropriate for potential

6. Risk Methodology

workplace exposures established by OEHHA. The daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASF), and fraction of time at home (FAH) for the various age groups follow:

Age Groups	BR/BW (L/kg-day)	ED	ASF	FAH
Third trimester	361	0.25	10	1
0–2 age group	1,090	2	10	1
2–9 age group	861	7	3	1
2–16 age group	745	14	3	1
16–30 age group	335	14	1	0.73
16–70 age group	290	54	1	0.73

To represent the unique characteristics of student populations, the assessment employed the USEPA's guidance to develop viable dose estimates based on reasonable maximum exposure, defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. Lifetime risk values for the elementary student population were adjusted to account for an exposure of 250 days per year for 7 years (transitional kindergarten through 5th grade). In addition, the calculated risk for students is multiplied by an ASF-weighting factor of 3 (for children ages 2 to 16) to account for early life sensitivity to pollutant exposures (OEHHA 2015).

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 (always 70 years)

The health risk calculations were performed using CARB's HARP2 Risk Assessment Standalone Tool (version 21081). HARP2 includes the current OEHHA toxicity factor database to calculate cancer risks and noncancer health hazards for various receptor types. 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).

Incremental cancer risk (expressed in chances per million) was calculated for the maximum exposed individual resident (MEIR) and the maximum exposed student receptor at Manzanita Elementary School. The assessment was based on reasonable maximum exposure, defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. Per default exposure parameters, it was assumed that the MEIR spent

24 hours/day, 7 days/week, 350 days/year outside their residence. Similarly, the evaluated elementary school students were also assumed to spend 8 hours/day, 5 days/week, 250 days/year outside.

The calculated HARP2 output results are provided in Appendix C.

6.2 NONCARCINOGENIC HAZARDS

An evaluation was also conducted of the potential noncancer effects of chronic DPM exposure. Adverse health effects are evaluated by comparing the annual ground-level concentration of DPM from project operation with the appropriate reference exposure limit (REL). Examples of noncancer adverse health effects are asthma, chronic obstructive pulmonary disease, and local effects from chemical exposure to specific organs such as the eyes, kidneys, and reproductive system.

The hazard index approach was used to quantify noncarcinogenic impacts. The hazard index assumes that chronic subthreshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For DPM, the target organ determined by OEHHA is the respiratory system. To calculate the hazard index, the DPM concentration is divided by the DPM's chronic REL. A hazard index of 1 or lower means air toxics are unlikely to cause adverse noncancer health effects, such as asthma, over a lifetime of exposure.

The calculated HARP2 output results are provided in Appendix C.

6.3 CUMULATIVE THRESHOLDS

The South Coast AQMD published a report on how to address cumulative impacts from air pollution: "White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution" (South Coast AQMD 2003), which states:

> …the South Coast AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR [i.e., air quality and greenhouse gas emissions]. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.
>
> Projects that exceed the project-specific significance thresholds are considered by the South Coast AQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. (p. D-3)

Therefore, the project would not result in cumulative impacts if the operation of the project would not exceed the project-specific significance thresholds.

6. Risk Methodology

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7. Results and Conclusions

7.1 HEALTH RISK RESULTS

Table 1 presents the results summary for the proposed project at the MEIR and Manzanita Elementary School. As shown in Figure 5, *Project Site and Receptor Locations*, the HRA predicted the MEIR location to be the single-family residence on the south side of East Cypress Street, approximately 550 feet north of the project site. The results in Table 1 indicate that the maximum incremental cancer risk at the MEIR is 1.4 per million, which is below the significance threshold of 10 per million. Similarly, the incremental cancer risk for the maximum exposed student receptor is 0.08 per million, which is well below the 10 in a million significance threshold. For noncarcinogenic effects, the chronic hazard indices identified for the respiratory system totaled well below the significance threshold of 1.0 for the MEIR and the maximum exposed student receptor.

Table 1 HRA Results

Receptor	Cancer Risk (per million)	Noncancer Risk Chronic Hazard Index
Maximum Exposed Individual Resident (MEIR)	1.4	<0.001
Manzanita Elementary School – Student	0.04	<0.001
South Coast AQMD Threshold	10	1.0
Exceeds Threshold?	**No**	**No**

Source: Appendix C.
Note: Cancer risk calculated using 2015 OEHHA Guidance Manual.
MEIR cancer risks are calculated for the 30-yr residential scenario. Manzanita Elementary School cancer risk calculated for 7-year student scenario (ages 4 to 10).

Therefore, the proposed project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions during project operation, and impacts would be *less than significant*.

7.2 CUMULATIVE ANALYSIS

As described in Section 6.3, the project-specific and cumulative significance thresholds are the same because the background risk in the South Coast Air Basin (SoCAB) is already high; therefore, the threshold is based on the potential for a project to cumulatively contribute to elevated levels of risk in the SoCAB (South Coast AQMD 2003). Therefore, the project would not result in cumulative impacts since operation of the project would not exceed the project-specific significance thresholds.

AIR QUALITY TRENDS

The National Association of Industrial and Office Properties (NAIOP) prepared a white paper that describes air quality trends in the SoCAB (NAIOP 2019). To summarize that report, air quality over the period from

7. Results and Conclusions

1980 to 2018 has drastically improved and will continue to improve for the air basin, with emerging technologies being unveiled on a yearly basis as well as South Coast AQMD rule development, implementation programs, and air quality management plans. The NAIOP concludes that rigorous individualized review under CEQA on a project-by-project basis is the correct policy to enforce to ensure public health.

Overall cancer risk throughout the SoCAB has been on a declining trend since 1990. In April 2021, the South Coast AQMD "Multiple Air Toxics Exposure Study in the South Coast Air Basin (Basin)," MATES V, showed that the average cancer risk in the air basin of 454 per million had decreased by 54 percent since 2012 (South Coast AQMD 2021). The countywide, population-weighted cancer risk for Los Angeles County was determined as 497 per million (South Coast AQMD 2021). Additionally, CARB estimates DPM emissions in 2035 will be less than half those in 2010 (CARB 2020).

ENVIRONMENTAL JUSTICE CONCERNS

According to the recommendation of the Office of the Attorney General of California, the operational HRA was conducted to evaluate potential health risk impacts from project-related truck trips and other project-related sources of DPM to the nearby surrounding sensitive receptors. The HRA is an example best practice under the guidelines of the "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" (OAG 2021). As discussed above, the project would not result in cumulative impacts to the nearby residents because operation of the project would not exceed the project-specific significance thresholds.

OTHER WAREHOUSE PROJECTS

For informational purposes, a review was conducted of recent and nearby warehouse projects under the City's cumulative project list. The following new large warehouse projects in the vicinity of the project site were reviewed to determine if potential impacts would affect the sensitive receptors evaluated for the proposed project.

- Irwindale Industrial Center Project at 5010 Azusa Canyon Road; approximately 234,000 SF of speculative industrial buildings; Initial Study Mitigated Negative Declaration dated September 2019; 0.60 mile north of the project site.
- 5175 Vincent Avenue Project; approximately 545,735 SF of speculative warehouse; Draft EIR dated February 2021; 0.86 mile northeast of the project site.
- 13131 Los Angeles Street Industrial Project; approximately 528,710 SF of speculative industrial/warehouse; Draft EIR dated April 2020; 2.4 miles east of the project site.

Applicants for all three warehouse projects conducted HRAs to determine the localized health risks to nearby residents. For the 5010 Azusa Canyon Road project, the incremental cancer risk at the MEIR west of the project site was determined at 0.3 in a million. For the 5175 Vincent Avenue project, the incremental cancer risk at the MEIR within 75 feet of the project was 3.7 in a million. For the 13131 Los Angeles Street project, the incremental cancer risk at the MEIR 660 feet to the east was 2.7 in a million. When the MEIR risks are combined with the proposed project MEIR risk, and not accounting for the spatial distance between the site locations and the locations of the different MEIRs, the total residential cancer risk for the proposed project and the three nearby warehouse projects totals 8.1 in a million. Though this value is still below South Coast AQMD's significance threshold of 10 in a million, it should be noted that the actual combined risk from these projects at any one receptor location would be much less because pollutant concentrations substantially decrease with distance from the pollution source.

7. Results and Conclusions

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Figure 5 - Project Site and Receptor Locations

Source: CalEnviroScreen, 2021

7. Results and Conclusions

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Appendix A. Emissions Inventory

Appendix

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Health Risk Assessment, Emissions Inventory
Diesel Trucks, Forklifts, and Yard Trucks
4416 Azusa Canyon Road, Irwindale

Operation: Industrial Warehousing

Year:	2022	Buildout

	hours	days	weeks	
Temporal Profile:	24	7	52	Site Operation
	7	7	52	Yard Equipment Operation

Truck Activity: (1)	65	one-way	33	round-trips
2 and 3-Axle Trucks	28	trips per day	14	trucks per day
4+-Axle Trucks	37	trips per day	19	trucks per day
On-site Ingress/Egress Travel Length			306	m
Off-site Travel Length			749.3	m
Idling Duration			30	min
Truck Bays			18	

Running Emissions:	Veh Category	Emission Factor (g/mi) (2)	Emission Factor (g/mi) (3)	**On-site Running** g/s	**Off-site Running** g/s
2 and 3-axle trucks	MHDT	0.05560	0.02867	1.71E-06	2.16E-06
4+-axle trucks	HHDT	0.04619	0.01827	1.93E-06	1.87E-06
TOTAL				**3.64E-06**	**4.03E-06**

Idling Emissions:	Veh Category	Emission Factor (4) g/hr	Idling Emissions g/s	Idling Emissions g/s/bay
2 and 3-axle trucks	MHDT	0.11946	9.68E-06	
4+-axle trucks	HHDT	0.01833	2.02E-06	
TOTAL			1.17E-05	**6.50E-07**

Yard DPM Emissions: (1)	lbs/day	**Yard Emissions** **g/s**
Yard Truck Emissions	0.083	4.34E-04
Forklift Emissions	0.276	1.45E-03
Total		**1.89E-03**

(1) Truck activity, forklift and yard truck emissions from IS/MND Air Quality Appendix, PlaceWorks, August 2021. Exhaust PM10 emissions used as surrogate for diesel particulate matter (DPM), per South Coast AQMD guidance.

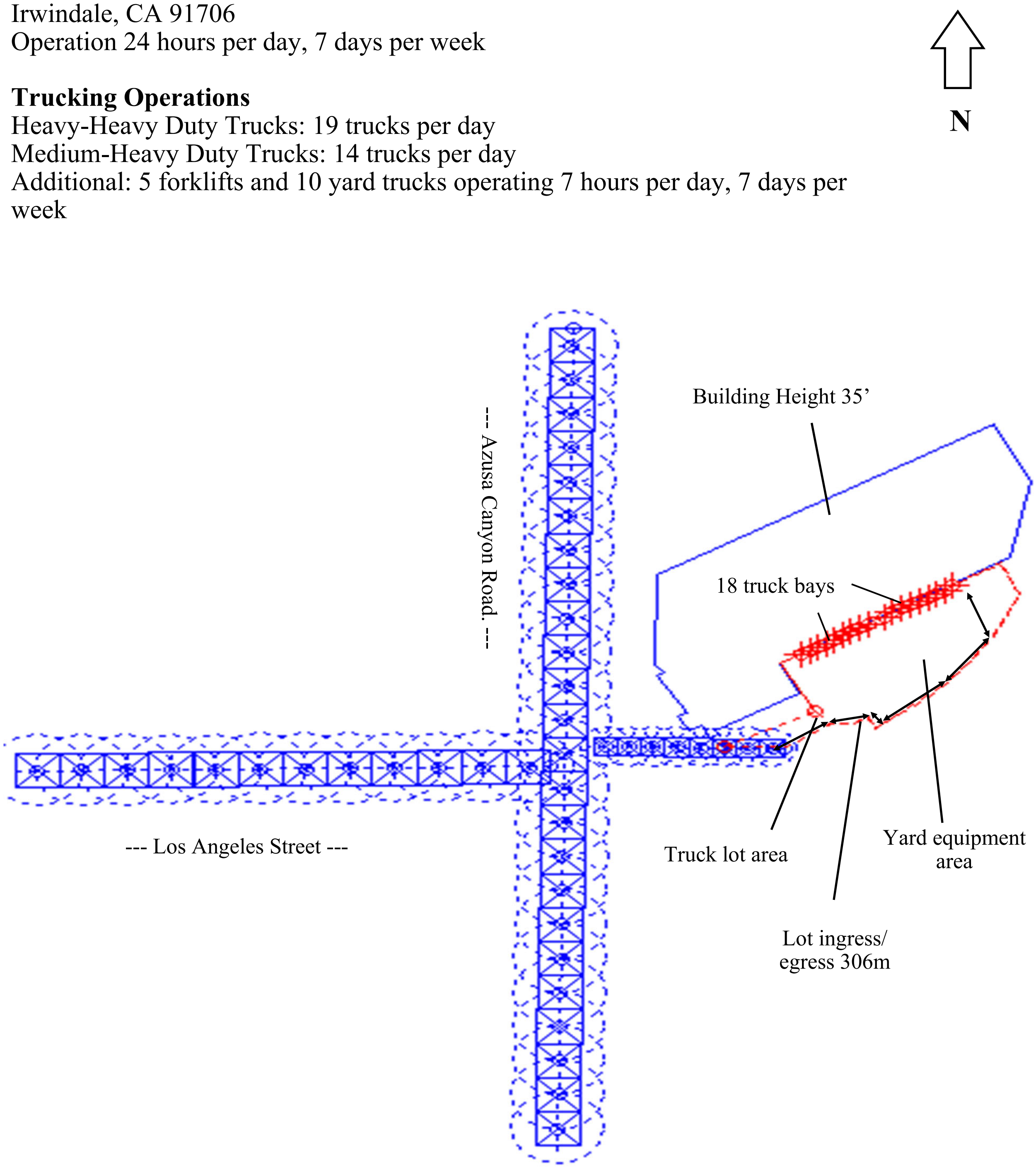
(2) PM10 running emission factors (g/mi) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2022 (5 mph).

(3) PM10 running emission factors (g/mi) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2022 (30 mph).

(4) PM10 idling emission factors (g/day) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2022.

4416 Azusa Canyon Road Project
Irwindale, CA 91706
Operation 24 hours per day, 7 days per week

Trucking Operations
Heavy-Heavy Duty Trucks: 19 trucks per day
Medium-Heavy Duty Trucks: 14 trucks per day
Additional: 5 forklifts and 10 yard trucks operating 7 hours per day, 7 days per week



- Release height of 4.15 m and initial vertical dimension (δy) of 1.93 m is based upon California Air Resources Board's "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" (2000).
- The following point source specifications were used to model truck idling at loading bays: stack temp 366 K, stack velocity 51.7 m/s, stack diameter 4 in, stack height 4.15 m (CARB, Risk Characterization Scenarios, Appendix VII for idling diesel trucks, 2000).

Appendix B. Air Dispersion Model Output

Appendix

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Control Pathway

Dispersion Options

Titles

HRA for 4416 Azusa Canyon Road

Dispersion Options

- [x] Regulatory Default
- [ ] Non-Default Options

Dispersion Coefficient

Urban

Population:
Name (Optional):
Roughness Length:

Output Type

- [x] Concentration
- [ ] Total Deposition (Dry & Wet)
- [ ] Dry Deposition
- [ ] Wet Deposition

Plume Depletion

- [ ] Dry Removal
- [ ] Wet Removal

Output Warnings

- [ ] No Output Warnings
- [ ] Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

Averaging Time Options

Hours

1	2	3	4	6	8	12	24
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

- [ ] Month
- [x] Period
- [ ] Annual

Exponential Decay

Half Life of 4 hrs will be used
Option not available

Terrain Height Options

- [ ] Flat
- [x] Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

- [ ] Yes
- [x] No

Default Height = 0.00 m

Control Pathway

AERMOD

Optional Files

☐ Re-Start File ☐ Init File ☐ Multi-Year Analyses ☐ Event Input File ☒ Error Listing File

Detailed Error Listing File

Filename: 4416 AZUSA CANYON ROAD.err

Source Pathway - Source Inputs

AERMOD

Point Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Gas Exit Temp. [K]	Gas Exit Velocity [m/s]	Stack Inside Diameter [m]
POINT	STCK1	413103.15 Truck Idling	3772882.16	128.22	4.15	1.00000	366.00	51.60	0.10
POINT	STCK2	413106.50 Truck Idling	3772884.39	128.22	4.15	1.00000	366.00	51.60	0.10
POINT	STCK3	413109.64 Truck Idling	3772886.37	128.22	4.15	1.00000	366.00	51.60	0.10
POINT	STCK4	413116.49 Truck Idling	3772890.22	128.22	4.15	1.00000	366.00	51.60	0.10
POINT	STCK5	413120.10 Truck Idling	3772892.63	128.21	4.15	1.00000	366.00	51.60	0.10
POINT	STCK6	413113.08 Truck Idling	3772888.36	128.22	4.15	1.00000	366.00	51.60	0.10
POINT	STCK7	413123.46 Truck Idling	3772894.31	128.20	4.15	1.00000	366.00	51.60	0.10
POINT	STCK8	413147.50 Truck Idling	3772908.74	128.11	4.15	1.00000	366.00	51.60	0.10
POINT	STCK9	413140.37 Truck Idling	3772904.80	128.14	4.15	1.00000	366.00	51.60	0.10
POINT	STCK10	413127.03 Truck Idling	3772896.35	128.19	4.15	1.00000	366.00	51.60	0.10
POINT	STCK11	413158.08 Truck Idling	3772914.85	128.08	4.15	1.00000	366.00	51.60	0.10
POINT	STCK12	413164.52 Truck Idling	3772918.89	128.07	4.15	1.00000	366.00	51.60	0.10

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Gas Exit Temp. [K]	Gas Exit Velocity [m/s]	Stack Inside Diameter [m]
POINT	STCK13	413137.09 Truck Idling	3772902.53	128.15	4.15	1.00000	366.00	51.60	0.10
POINT	STCK14	413130.69 Truck Idling	3772898.31	128.18	4.15	1.00000	366.00	51.60	0.10
POINT	STCK15	413154.96 Truck Idling	3772912.48	128.09	4.15	1.00000	366.00	51.60	0.10
POINT	STCK16	413161.70 Truck Idling	3772916.64	128.07	4.15	1.00000	366.00	51.60	0.10
POINT	STCK17	413144.08 Truck Idling	3772906.58	128.13	4.15	1.00000	366.00	51.60	0.10
POINT	STCK18	413151.34 Truck Idling	3772910.65	128.10	4.15	1.00000	366.00	51.60	0.10

Source Pathway - Source Inputs

AERMOD

Polygon Area Sources

Source Type: AREA POLY

Source: PAREA1 (On-Site Truck Travel)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
127.79	4.15	0.00023	1.93	13	413071.38	3772832.96
		0.00023			413108.59	3772851.71
		0.00023			413094.68	3772877.56
		0.00023			413185.29	3772931.24
		0.00023			413192.96	3772913.91
		0.00023			413182.45	3772893.75
		0.00023			413169.95	3772874.43
		0.00023			413156.03	3772860.80
		0.00023			413133.88	3772842.62
		0.00023			413130.18	3772848.58
		0.00023			413124.79	3772845.46
		0.00023			413115.13	3772845.46
		0.00023			413097.23	3772832.67

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: PAREA2 (Equipment Area)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
128.01	4.15	0.00024	1.93	12	413108.31	3772851.99
		0.00024			413094.68	3772877.56
		0.00024			413185.29	3772931.53
		0.00024			413192.96	3772914.20
		0.00024			413182.73	3772893.46
		0.00024			413171.37	3772877.56
		0.00024			413158.02	3772862.78
		0.00024			413139.27	3772847.16
		0.00024			413133.31	3772843.18
		0.00024			413129.33	3772848.58
		0.00024			413125.07	3772845.17
		0.00024			413114.84	3772845.46

Source Pathway - Source Inputs

AERMOD

Line Volume Sources

Source Type: LINE VOLUME

Source: SLINE2 (Driveway to LA Street)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
9.75	0.11000		413096.09	3772831.84	127.65	4.15
			413014.01	3772832.70	127.48	4.15

Source Type: LINE VOLUME

Source: SLINE3 (Los Angeles Street)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
18.29	0.30000		413000.37	3772821.81	127.33	4.15
			412778.00	3772819.58	126.35	4.15

Source Type: LINE VOLUME

Source: SLINE4 (Azusa Canyon Road)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
18.29	0.59000		413009.34	3773057.15	128.26	4.15
			413003.09	3772612.41	124.88	4.15

Source Pathway - Source Inputs

AERMOD

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0001199	413091.21	3772831.89	127.71	4.15	0.01375	9.75		4.54	1.93
	L0001200	413081.46	3772831.99	127.74	4.15	0.01375	9.75		4.54	1.93
	L0001201	413071.71	3772832.09	127.78	4.15	0.01375	9.75		4.54	1.93
	L0001202	413061.95	3772832.19	127.76	4.15	0.01375	9.75		4.54	1.93
	L0001203	413052.20	3772832.30	127.70	4.15	0.01375	9.75		4.54	1.93
	L0001204	413042.45	3772832.40	127.64	4.15	0.01375	9.75		4.54	1.93
	L0001205	413032.70	3772832.50	127.58	4.15	0.01375	9.75		4.54	1.93
	L0001206	413022.94	3772832.60	127.52	4.15	0.01375	9.75		4.54	1.93

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE3	L0001207	412991.23	3772821.72	127.10	4.15	0.02500	18.29		8.51	1.93
	L0001208	412972.94	3772821.53	127.08	4.15	0.02500	18.29		8.51	1.93
	L0001209	412954.66	3772821.35	127.04	4.15	0.02500	18.29		8.51	1.93
	L0001210	412936.37	3772821.17	126.99	4.15	0.02500	18.29		8.51	1.93
	L0001211	412918.08	3772820.98	127.00	4.15	0.02500	18.29		8.51	1.93
	L0001212	412899.80	3772820.80	124.58	4.15	0.02500	18.29		8.51	1.93
	L0001213	412881.51	3772820.62	123.48	4.15	0.02500	18.29		8.51	1.93
	L0001214	412863.22	3772820.44	125.22	4.15	0.02500	18.29		8.51	1.93
	L0001215	412844.93	3772820.25	125.99	4.15	0.02500	18.29		8.51	1.93
	L0001216	412826.65	3772820.07	126.38	4.15	0.02500	18.29		8.51	1.93
	L0001217	412808.36	3772819.89	126.45	4.15	0.02500	18.29		8.51	1.93
	L0001218	412790.07	3772819.70	126.29	4.15	0.02500	18.29		8.51	1.93

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE4	L0001219	413009.21	3773048.01	128.27	4.15	0.02458	18.29		8.51	1.93
	L0001220	413008.95	3773029.72	128.29	4.15	0.02458	18.29		8.51	1.93
	L0001221	413008.70	3773011.44	128.32	4.15	0.02458	18.29		8.51	1.93
	L0001222	413008.44	3772993.15	128.36	4.15	0.02458	18.29		8.51	1.93
	L0001223	413008.18	3772974.86	127.45	4.15	0.02458	18.29		8.51	1.93
	L0001224	413007.93	3772956.58	125.37	4.15	0.02458	18.29		8.51	1.93
	L0001225	413007.67	3772938.29	125.88	4.15	0.02458	18.29		8.51	1.93
	L0001226	413007.41	3772920.00	127.11	4.15	0.02458	18.29		8.51	1.93
	L0001227	413007.16	3772901.72	127.53	4.15	0.02458	18.29		8.51	1.93
	L0001228	413006.90	3772883.43	127.73	4.15	0.02458	18.29		8.51	1.93
	L0001229	413006.64	3772865.15	127.57	4.15	0.02458	18.29		8.51	1.93
	L0001230	413006.38	3772846.86	127.49	4.15	0.02458	18.29		8.51	1.93
	L0001231	413006.13	3772828.57	127.44	4.15	0.02458	18.29		8.51	1.93
	L0001232	413005.87	3772810.29	127.04	4.15	0.02458	18.29		8.51	1.93
	L0001233	413005.61	3772792.00	126.60	4.15	0.02458	18.29		8.51	1.93
	L0001234	413005.36	3772773.72	126.08	4.15	0.02458	18.29		8.51	1.93
	L0001235	413005.10	3772755.43	125.78	4.15	0.02458	18.29		8.51	1.93
	L0001236	413004.84	3772737.14	125.59	4.15	0.02458	18.29		8.51	1.93
	L0001237	413004.59	3772718.86	125.44	4.15	0.02458	18.29		8.51	1.93
	L0001238	413004.33	3772700.57	125.31	4.15	0.02458	18.29		8.51	1.93
	L0001239	413004.07	3772682.28	125.22	4.15	0.02458	18.29		8.51	1.93
	L0001240	413003.81	3772664.00	125.14	4.15	0.02458	18.29		8.51	1.93
	L0001241	413003.56	3772645.71	125.06	4.15	0.02458	18.29		8.51	1.93
	L0001242	413003.30	3772627.43	124.94	4.15	0.02458	18.29		8.51	1.93

Building Downwash Information

Source ID: STCK1

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-50.65	-54.95	-58.57	-61.06	-61.70	-60.66
70-120 deg	-59.25	-60.03	-59.63	-65.93	-70.55	-73.02
130-180 deg	-73.28	-71.31	-67.61	-89.23	-108.15	-123.77
190-240 deg	-135.63	-143.38	-146.76	-145.69	-140.19	-130.43
250-300 deg	-120.65	-109.25	-94.54	-76.95	-62.92	-48.38
310-360 deg	-32.38	-15.38	-20.59	-29.29	-37.63	-44.82

Across Flow [m] (10 to 360 deg)

10-60 deg	-5.51	3.81	12.32	20.45	27.96	23.51
70-120 deg	29.97	35.26	39.47	42.49	44.22	44.10
130-180 deg	42.31	39.24	34.88	30.70	24.61	17.45
190-240 deg	5.51	-3.81	-12.32	-20.45	-27.96	-23.51
250-300 deg	-29.97	-35.26	-39.48	-42.49	-44.22	-44.10
310-360 deg	-42.31	-39.24	-34.88	-30.70	-24.61	-17.45

Source ID: STCK2

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67

70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-53.43	-58.19	-62.17	-64.92	-65.70	-64.68
70-120 deg	-63.16	-63.72	-62.98	-68.84	-72.93	-74.81
130-180 deg	-74.41	-71.75	-67.36	-88.29	-106.53	-121.54
190-240 deg	-132.86	-140.14	-143.16	-141.83	-136.19	-126.41
250-300 deg	-116.74	-105.57	-91.19	-74.04	-60.54	-46.60
310-360 deg	-31.24	-14.94	-20.84	-30.24	-39.24	-47.05

Across Flow [m] (10 to 360 deg)

10-60 deg	-2.60	6.20	14.11	21.58	28.41	23.26
70-120 deg	29.02	33.65	37.24	39.71	40.97	40.49
130-180 deg	38.45	35.24	30.87	26.79	20.92	14.10
190-240 deg	2.60	-6.20	-14.11	-21.58	-28.41	-23.26
250-300 deg	-29.02	-33.65	-37.25	-39.71	-40.97	-40.49
310-360 deg	-38.45	-35.24	-30.87	-26.79	-20.92	-14.10

Source ID: **STCK3**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-55.93	-61.12	-65.46	-68.46	-69.38	-68.39
70-120 deg	-66.79	-67.15	-66.12	-71.59	-75.21	-76.54
130-180 deg	-75.55	-72.26	-67.21	-87.50	-105.13	-119.56
190-240 deg	-130.36	-137.20	-139.87	-138.29	-132.51	-122.71
250-300 deg	-113.11	-102.13	-88.05	-71.29	-58.26	-44.87
310-360 deg	-30.11	-14.44	-20.99	-31.02	-40.64	-49.03

Across Flow [m] (10 to 360 deg)

10-60 deg	0.15	8.47	15.84	22.72	28.91	23.11
70-120 deg	28.24	32.24	35.26	37.22	38.04	37.21
130-180 deg	34.92	31.57	27.16	23.16	17.49	10.96
190-240 deg	-0.15	-8.47	-15.84	-22.72	-28.91	-23.11
250-300 deg	-28.24	-32.24	-35.27	-37.22	-38.04	-37.21
310-360 deg	-34.92	-31.57	-27.16	-23.16	-17.49	-10.96

Source ID: **STCK4**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20

250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-60.91	-67.08	-72.22	-75.81	-77.10	-76.25
70-120 deg	-74.54	-74.57	-72.97	-77.67	-80.33	-80.55
130-180 deg	-78.32	-73.71	-67.30	-86.22	-102.52	-115.71
190-240 deg	-125.38	-131.24	-133.11	-130.94	-124.79	-114.85
250-300 deg	-105.35	-94.72	-81.20	-65.22	-53.14	-40.86
310-360 deg	-27.34	-12.98	-20.90	-32.30	-43.25	-52.88

Across Flow [m] (10 to 360 deg)

10-60 deg	6.23	13.59	19.84	25.49	30.36	23.20
70-120 deg	26.96	29.64	31.41	32.24	32.08	30.45
130-180 deg	27.56	23.84	19.30	15.41	10.07	4.11
190-240 deg	-6.23	-13.59	-19.84	-25.49	-30.36	-23.20
250-300 deg	-26.96	-29.64	-31.42	-32.24	-32.08	-30.45
310-360 deg	-27.56	-23.84	-19.30	-15.41	-10.07	-4.11

Source ID: **STCK5**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41

130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-63.91	-70.58	-76.11	-79.98	-81.42	-80.58
70-120 deg	-78.76	-78.54	-76.58	-80.81	-82.90	-82.47
130-180 deg	-79.53	-74.18	-67.02	-85.19	-100.78	-113.30
190-240 deg	-122.38	-127.74	-129.22	-126.77	-120.48	-110.52
250-300 deg	-101.14	-90.74	-77.59	-62.08	-50.58	-38.94
310-360 deg	-26.12	-12.51	-21.18	-33.33	-44.99	-55.29

Across Flow [m] (10 to 360 deg)

10-60 deg	9.36	16.16	21.76	26.71	30.84	22.92
70-120 deg	25.93	27.89	29.00	29.24	28.58	26.56
130-180 deg	23.40	19.53	14.97	11.19	6.10	0.50
190-240 deg	-9.36	-16.16	-21.76	-26.71	-30.84	-22.92
250-300 deg	-25.93	-27.89	-29.00	-29.24	-28.58	-26.56
310-360 deg	-23.40	-19.53	-14.97	-11.19	-6.10	-0.50

Source ID: **STCK6**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-58.48	-64.17	-68.90	-72.19	-73.30	-72.36
70-120 deg	-70.70	-70.89	-69.56	-74.63	-77.76	-78.52
130-180 deg	-76.90	-72.94	-67.21	-86.81	-103.76	-117.57
190-240 deg	-127.80	-134.15	-136.43	-134.56	-128.60	-118.73
250-300 deg	-109.19	-98.40	-84.61	-68.25	-55.71	-42.88
310-360 deg	-28.75	-13.75	-20.99	-31.72	-42.01	-51.02

Across Flow [m] (10 to 360 deg)

10-60 deg	3.19	11.02	17.82	24.07	29.60	23.11
70-120 deg	27.54	30.88	33.27	34.66	34.99	33.76
130-180 deg	31.18	27.65	23.18	19.25	13.75	7.52
190-240 deg	-3.19	-11.02	-17.82	-24.07	-29.60	-23.11
250-300 deg	-27.54	-30.88	-33.28	-34.66	-34.99	-33.76
310-360 deg	-31.18	-27.65	-23.18	-19.25	-13.75	-7.52

Source ID: **STCK7**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-66.14	-73.31	-79.24	-83.42	-85.07	-84.33
70-120 deg	-82.49	-82.14	-79.94	-83.82	-85.48	-84.54
130-180 deg	-81.03	-75.06	-67.25	-84.76	-99.71	-111.62
190-240 deg	-120.14	-125.01	-126.09	-123.33	-116.82	-106.77

250-300 deg	-97.41	-87.14	-74.23	-59.06	-47.99	-36.87
310-360 deg	-24.63	-11.64	-20.95	-33.76	-46.06	-56.97

Across Flow [m] (10 to 360 deg)

10-60 deg	12.38	18.74	23.83	28.20	31.71	23.15
70-120 deg	25.50	26.82	27.32	27.00	25.85	23.42
130-180 deg	19.95	15.88	11.22	7.46	2.50	-2.86
190-240 deg	-12.38	-18.74	-23.83	-28.20	-31.71	-23.15
250-300 deg	-25.50	-26.82	-27.32	-27.00	-25.85	-23.42
310-360 deg	-19.95	-15.88	-11.22	-7.46	-2.50	2.86

Source ID: STCK8

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-84.53	-95.09	-103.76	-109.93	-112.76	-112.36
70-120 deg	-110.02	-108.32	-103.98	-104.99	-103.13	-98.14
130-180 deg	-90.17	-79.45	-66.77	-79.43	-89.67	-97.19
190-240 deg	-101.76	-103.23	-101.57	-96.82	-89.13	-78.73
250-300 deg	-69.88	-60.96	-50.19	-37.89	-30.34	-23.27
310-360 deg	-15.49	-7.24	-21.43	-39.10	-56.10	-71.40

Across Flow [m] (10 to 360 deg)

10-60 deg	33.55	36.40	37.44	37.34	36.11	22.67
70-120 deg	20.17	16.79	12.89	8.61	4.07	-1.10

130-180 deg	-6.56	-11.82	-16.81	-20.07	-23.68	-26.90
190-240 deg	-33.55	-36.40	-37.44	-37.34	-36.11	-22.67
250-300 deg	-20.17	-16.79	-12.89	-8.61	-4.07	1.10
310-360 deg	6.56	11.82	16.81	20.07	23.68	26.90

Source ID: **STCK9**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-79.41	-88.95	-96.78	-102.33	-104.77	-104.22
70-120 deg	-101.97	-100.62	-96.85	-98.65	-97.78	-93.94
130-180 deg	-87.24	-77.89	-66.62	-80.69	-92.31	-101.13
190-240 deg	-106.87	-109.37	-108.55	-104.42	-97.13	-86.88
250-300 deg	-77.93	-68.67	-57.32	-44.23	-35.69	-27.47
310-360 deg	-18.42	-8.80	-21.58	-37.83	-53.46	-67.46

Across Flow [m] (10 to 360 deg)

10-60 deg	27.21	31.05	33.23	34.41	34.54	22.52
70-120 deg	21.43	19.43	16.83	13.73	10.21	5.88
130-180 deg	1.05	-3.82	-8.67	-12.02	-15.98	-19.76
190-240 deg	-27.21	-31.05	-33.23	-34.41	-34.54	-22.52
250-300 deg	-21.43	-19.43	-16.83	-13.73	-10.21	-5.88
310-360 deg	-1.05	3.82	8.67	12.02	15.98	19.77

Source ID: STCK10

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-68.77	-76.45	-82.79	-87.28	-89.12	-88.44
70-120 deg	-86.54	-86.01	-83.51	-86.98	-88.14	-86.61
130-180 deg	-82.45	-75.79	-67.26	-84.07	-98.32	-109.58
190-240 deg	-117.51	-121.87	-122.53	-119.47	-112.78	-102.66
250-300 deg	-93.35	-83.27	-70.66	-55.90	-45.34	-34.80
310-360 deg	-23.20	-10.90	-20.93	-34.45	-47.45	-59.01

Across Flow [m] (10 to 360 deg)

10-60 deg	15.54	21.40	25.91	29.62	32.44	23.16
70-120 deg	24.81	25.43	25.28	24.37	22.71	19.87
130-180 deg	16.09	11.83	7.11	3.41	-1.37	-6.43
190-240 deg	-15.54	-21.40	-25.91	-29.62	-32.44	-23.16
250-300 deg	-24.81	-25.43	-25.28	-24.37	-22.71	-19.87
310-360 deg	-16.09	-11.83	-7.11	-3.41	1.37	6.43

Source ID: STCK11

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67

190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-92.38	-104.45	-114.34	-121.41	-124.79	-124.58
70-120 deg	-122.05	-119.80	-114.56	-114.35	-110.99	-104.25
130-180 deg	-94.35	-81.58	-66.77	-77.30	-85.49	-91.08
190-240 deg	-93.90	-93.87	-90.99	-85.34	-77.10	-66.52
250-300 deg	-57.85	-49.48	-39.61	-28.54	-22.49	-17.16
310-360 deg	-11.31	-5.12	-21.43	-41.22	-60.28	-77.51

Across Flow [m] (10 to 360 deg)

10-60 deg	42.91	44.25	43.55	41.52	38.23	22.67
70-120 deg	18.04	12.61	6.78	0.76	-5.29	-11.68
130-180 deg	-18.04	-23.85	-29.03	-32.10	-35.16	-37.47
190-240 deg	-42.91	-44.25	-43.55	-41.52	-38.23	-22.67
250-300 deg	-18.04	-12.61	-6.78	-0.76	5.29	11.68
310-360 deg	18.04	23.85	29.03	32.10	35.16	37.48

Source ID: **STCK12**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20

70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-97.48	-110.45	-121.06	-128.65	-132.33	-132.18
70-120 deg	-129.48	-126.85	-121.00	-119.99	-115.66	-107.81
130-180 deg	-96.68	-82.62	-66.49	-75.71	-82.63	-87.04
190-240 deg	-88.81	-87.87	-84.27	-78.11	-69.57	-58.92
250-300 deg	-50.42	-42.44	-33.17	-22.89	-17.82	-13.60
310-360 deg	-8.97	-4.07	-21.71	-42.81	-63.14	-81.55

Across Flow [m] (10 to 360 deg)

10-60 deg	48.55	48.92	47.10	43.85	39.27	22.39
70-120 deg	16.45	9.74	2.74	-4.34	-11.29	-18.40
130-180 deg	-25.27	-31.38	-36.63	-39.53	-42.21	-43.91
190-240 deg	-48.55	-48.92	-47.10	-43.85	-39.27	-22.39
250-300 deg	-16.45	-9.74	-2.74	4.34	11.29	18.40
310-360 deg	25.27	31.38	36.63	39.53	42.21	43.92

Source ID: STCK13

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-76.61	-85.70	-93.18	-98.48	-100.80	-100.24
70-120 deg	-98.11	-96.99	-93.57	-95.82	-95.48	-92.23
130-180 deg	-86.19	-77.52	-66.94	-81.70	-93.98	-103.40
190-240 deg	-109.68	-112.63	-112.15	-108.27	-101.10	-90.85
250-300 deg	-81.79	-72.29	-60.60	-47.07	-38.00	-29.18
310-360 deg	-19.47	-9.17	-21.26	-36.82	-51.79	-65.19

Across Flow [m] (10 to 360 deg)

10-60 deg	24.38	28.74	31.53	33.36	34.17	22.84
70-120 deg	22.44	21.09	19.10	16.54	13.47	9.49
130-180 deg	4.89	0.15	-4.69	-8.16	-12.35	-16.49
190-240 deg	-24.38	-28.74	-31.53	-33.36	-34.17	-22.84
250-300 deg	-22.44	-21.09	-19.10	-16.54	-13.47	-9.49
310-360 deg	-4.89	-0.15	4.69	8.16	12.35	16.49

Source ID: **STCK14**

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10

250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-71.34	-79.54	-86.32	-91.14	-93.18	-92.59
70-120 deg	-90.65	-89.96	-87.17	-90.25	-90.90	-88.80
130-180 deg	-84.00	-76.64	-67.40	-83.48	-97.02	-107.62
190-240 deg	-114.95	-118.78	-119.01	-115.62	-108.71	-98.51
250-300 deg	-89.24	-79.33	-67.00	-52.64	-42.57	-32.61
310-360 deg	-21.66	-10.05	-20.80	-35.04	-48.75	-60.97

Across Flow [m] (10 to 360 deg)

10-60 deg	18.81	24.17	28.10	31.17	33.29	23.30
70-120 deg	24.22	24.14	23.32	21.80	19.62	16.34
130-180 deg	12.24	7.77	2.96	-0.70	-5.32	-10.08
190-240 deg	-18.81	-24.17	-28.10	-31.17	-33.29	-23.30
250-300 deg	-24.22	-24.14	-23.32	-21.80	-19.62	-16.34
310-360 deg	-12.24	-7.77	-2.96	0.70	5.32	10.09

Source ID: STCK15

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-89.51	-101.16	-110.73	-117.59	-120.88	-120.69
70-120 deg	-118.30	-116.32	-111.44	-111.69	-108.86	-102.73

130-180 deg	-93.48	-81.39	-67.26	-78.46	-87.28	-93.45
190-240 deg	-96.78	-97.17	-94.60	-89.16	-81.01	-70.40
250-300 deg	-61.59	-52.97	-42.73	-31.20	-24.61	-18.68
310-360 deg	-12.18	-5.31	-20.94	-40.06	-58.49	-75.14

Across Flow [m] (10 to 360 deg)

10-60 deg	40.25	42.13	42.03	40.65	38.04	23.16
70-120 deg	19.20	14.40	9.15	3.63	-2.00	-8.06
130-180 deg	-14.22	-19.93	-25.15	-28.36	-31.68	-34.36
190-240 deg	-40.25	-42.13	-42.03	-40.65	-38.04	-23.16
250-300 deg	-19.20	-14.40	-9.15	-3.63	2.00	8.06
310-360 deg	14.22	19.93	25.15	28.36	31.68	34.36

Source ID: STCK16

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-94.78	-107.37	-117.70	-125.11	-128.72	-128.61
70-120 deg	-126.06	-123.68	-118.18	-117.60	-113.78	-106.49
130-180 deg	-95.97	-82.53	-67.03	-76.86	-84.36	-89.29
190-240 deg	-91.51	-90.95	-87.63	-81.64	-73.17	-62.49
250-300 deg	-53.83	-45.61	-35.99	-25.28	-19.70	-14.92
310-360 deg	-9.69	-4.16	-21.17	-41.66	-61.41	-79.30

Across Flow [m] (10 to 360 deg)

10-60 deg	46.16	47.04	45.79	43.14	39.18	22.93
70-120 deg	17.60	11.47	4.99	-1.63	-8.21	-15.04
130-180 deg	-21.73	-27.77	-33.06	-36.11	-39.04	-41.09
190-240 deg	-46.16	-47.04	-45.79	-43.14	-39.18	-22.93
250-300 deg	-17.60	-11.47	-4.99	1.63	8.21	15.04
310-360 deg	21.73	27.77	33.06	36.11	39.04	41.10

Source ID: STCK17

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-81.81	-91.89	-100.18	-106.08	-108.75	-108.32
70-120 deg	-106.06	-104.58	-100.56	-102.00	-100.66	-96.26
130-180 deg	-88.94	-78.91	-66.93	-80.29	-91.20	-99.35
190-240 deg	-104.48	-106.43	-105.15	-100.67	-93.14	-82.77
250-300 deg	-73.83	-64.70	-53.61	-40.89	-32.81	-25.15
310-360 deg	-16.72	-7.78	-21.27	-38.24	-54.57	-69.24

Across Flow [m] (10 to 360 deg)

10-60 deg	30.56	33.92	35.56	36.11	35.57	22.83
70-120 deg	21.03	18.32	15.05	11.33	7.27	2.49
130-180 deg	-2.70	-7.81	-12.77	-16.12	-19.94	-23.47
190-240 deg	-30.56	-33.92	-35.56	-36.11	-35.57	-22.83

250-300 deg	-21.03	-18.32	-15.05	-11.33	-7.27	-2.49
310-360 deg	2.70	7.81	12.77	16.12	19.94	23.48

Source ID: STCK18

Heights [m] (10 to 360 deg)

10-60 deg	10.67	10.67	10.67	10.67	10.67	10.67
70-120 deg	10.67	10.67	10.67	10.67	10.67	10.67
130-180 deg	10.67	10.67	10.67	10.67	10.67	10.67
190-240 deg	10.67	10.67	10.67	10.67	10.67	10.67
250-300 deg	10.67	10.67	10.67	10.67	10.67	10.67
310-360 deg	10.67	10.67	10.67	10.67	10.67	10.67

Widths [m] (10 to 360 deg)

10-60 deg	142.89	133.47	121.41	105.66	86.69	88.20
70-120 deg	118.52	145.77	168.59	186.29	198.32	205.33
130-180 deg	206.75	201.89	191.10	179.90	169.28	154.17
190-240 deg	142.89	133.47	121.41	105.66	86.69	88.20
250-300 deg	118.52	145.77	168.59	186.29	198.32	205.33
310-360 deg	206.75	201.89	191.10	179.90	169.28	154.17

Lengths [m] (10 to 360 deg)

10-60 deg	186.29	198.32	205.33	206.75	201.89	191.10
70-120 deg	179.90	169.28	154.17	142.89	133.47	121.41
130-180 deg	105.66	86.69	88.20	118.52	145.77	168.59
190-240 deg	186.29	198.32	205.33	206.75	201.89	191.10
250-300 deg	179.90	169.28	154.17	142.89	133.47	121.41
310-360 deg	105.66	86.69	88.20	118.52	145.77	168.59

Along Flow [m] (10 to 360 deg)

10-60 deg	-87.08	-98.20	-107.33	-113.86	-116.93	-116.64
70-120 deg	-114.28	-112.44	-107.82	-108.44	-106.09	-100.51
130-180 deg	-91.88	-80.46	-67.03	-78.94	-88.46	-95.28
190-240 deg	-99.21	-100.12	-97.99	-92.89	-84.96	-74.45
250-300 deg	-65.62	-56.85	-46.35	-34.44	-27.38	-20.90
310-360 deg	-13.77	-6.23	-21.16	-39.58	-57.31	-73.31

Across Flow [m] (10 to 360 deg)

10-60 deg	37.00	39.35	39.81	39.05	37.11	22.94
70-120 deg	19.68	15.57	10.98	6.07	0.96	-4.67
130-180 deg	-10.49	-15.99	-21.10	-24.33	-27.79	-30.74
190-240 deg	-37.00	-39.35	-39.81	-39.05	-37.11	-22.94
250-300 deg	-19.68	-15.57	-10.98	-6.07	-0.96	4.67
310-360 deg	10.49	15.99	21.10	24.33	27.79	30.74

Emission Rate Units for Output

For Concentration

Unit Factor:	1E6
Emission Unit Label:	GRAMS/SEC
Concentration Unit Label:	MICROGRAMS/M**3

Source Groups

Source Group ID:	List of Sources in Group (Source Range or Single Sources)
YardEqu	PAREA2
On-SiteT	PAREA1
Off-Site	SLINE2 SLINE3 SLINE4
Idling	STCK1 STCK2 STCK3 STCK4 STCK5 STCK6 STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13 STCK14 STCK15 STCK16 STCK17 STCK18
ALL	All Sources Included

Variable Emissions

Hourly Emission Rate Variation

Scenario: YardOperation

Source ID:	PAREA2					
1 to 6	0.00	0.00	0.00	0.00	0.00	0.00
7 to 12	0.00	0.00	1.00	1.00	1.00	1.00
13 to 18	1.00	1.00	1.00	0.00	0.00	0.00
19 to 24	0.00	0.00	0.00	0.00	0.00	0.00

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: AZUS_V9_ADJU\AZUS_v9.SFC

Format Type: Default AERMET format

Profile Met Data

Filename: AZUS_V9_ADJU\AZUS_v9.PFL

Format Type: Default AERMET format

Wind Speed

Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 182.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2012			Azusa
Upper Air		2012			
On-Site		2012			

Data Period

Data Period to Process

Start Date: 1/1/2012 Start Hour: 1 End Date: 12/31/2016 End Hour: 24

Wind Speed Categories

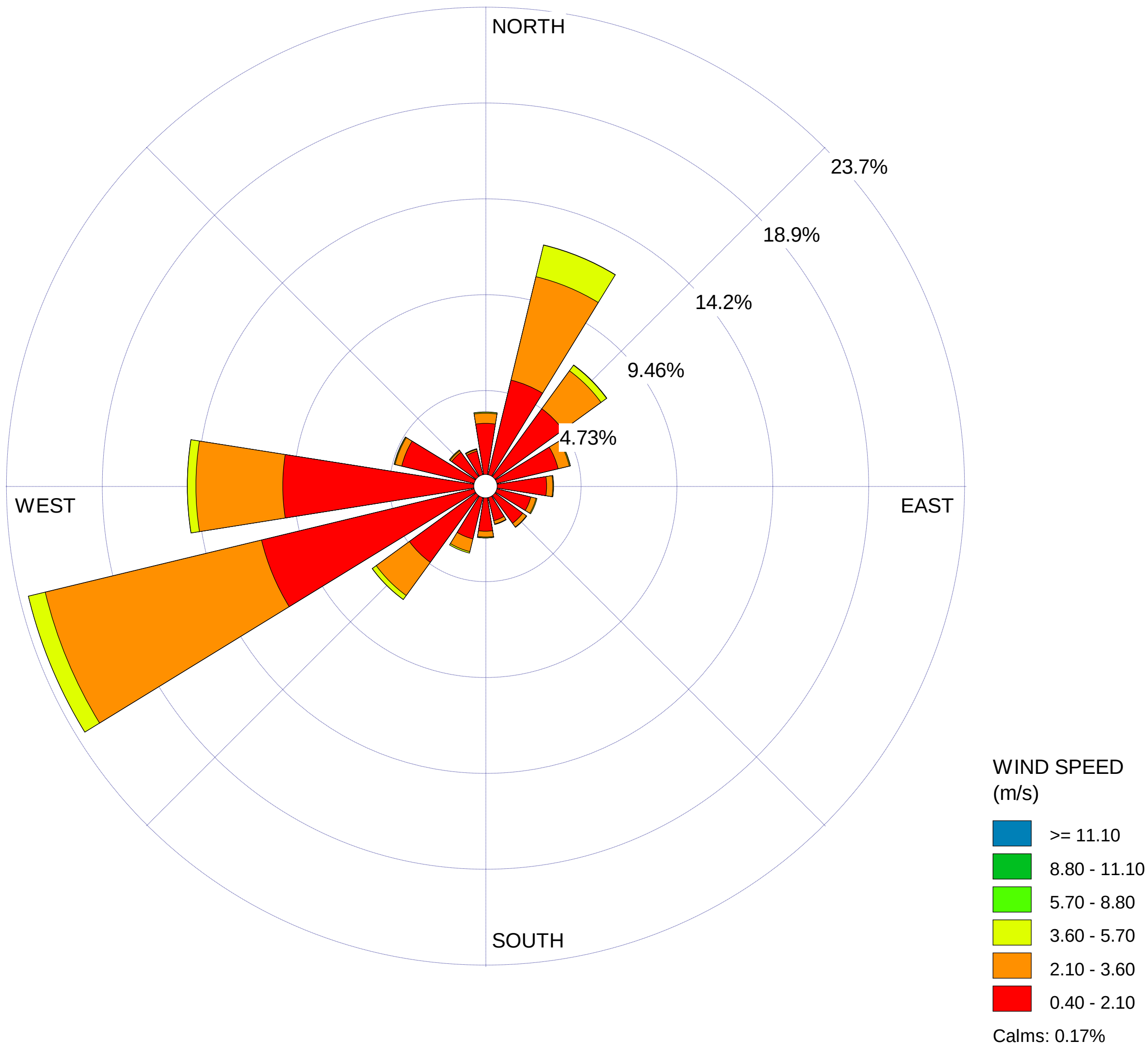
Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

WIND ROSE PLOT:

Station #3179

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

Start Date: 1/1/2012 - 00:00
End Date: 12/31/2016 - 23:59

COMPANY NAME:

South Coast Air Quality Management District

MODELER:

Melissa Sheffer

CALM WINDS:

0.17%

TOTAL COUNT:

42845 hrs.

AVG. WIND SPEED:

1.70 m/s

DATE:

5/25/2017

PROJECT NO.:

WRPLOT View - Lakes Environmental Software

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLING ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 ,
STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** 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
413385.84	3773220.44	138.24669	413397.29	3773220.44	137.72454
413408.74	3773220.44	137.09589	413420.19	3773220.44	136.26235
413431.64	3773220.44	135.20964	413385.84	3773230.51	131.17001
413397.29	3773230.51	130.70762	413408.74	3773230.51	130.12256
413420.19	3773230.51	129.32018	413431.64	3773230.51	128.36968
413385.84	3773240.58	125.11362	413397.29	3773240.58	124.51542
413408.74	3773240.58	123.69611	413420.19	3773240.58	122.85886
413431.64	3773240.58	122.02948	413385.84	3773250.65	119.52255
413397.29	3773250.65	118.63446	413408.74	3773250.65	117.96438
413420.19	3773250.65	117.06953	413431.64	3773250.65	116.13336
413385.84	3773260.72	114.07604	413397.29	3773260.72	113.35439
413408.74	3773260.72	112.59421	413420.19	3773260.72	111.61797
413431.64	3773260.72	110.55643	413385.84	3773270.79	109.02463
413397.29	3773270.79	108.44755	413408.74	3773270.79	107.39371
413420.19	3773270.79	106.41630	413431.64	3773270.79	105.48970
413385.84	3773280.86	104.24662	413397.29	3773280.86	103.58097
413408.74	3773280.86	102.80963	413420.19	3773280.86	101.61972
413431.64	3773280.86	100.61278	413385.84	3773290.93	99.89516
413397.29	3773290.93	99.13680	413408.74	3773290.93	98.41460
413420.19	3773290.93	97.12390	413431.64	3773290.93	95.98743
413385.84	3773301.00	95.87329	413397.29	3773301.00	94.95022
413408.74	3773301.00	94.04401	413420.19	3773301.00	93.02188
413431.64	3773301.00	91.98891	413385.84	3773311.07	91.85769
413397.29	3773311.07	91.05720	413408.74	3773311.07	90.11120
413420.19	3773311.07	89.12320	413431.64	3773311.07	88.01686
413385.84	3773321.14	88.03256	413397.29	3773321.14	87.19983
413408.74	3773321.14	86.31331	413420.19	3773321.14	85.28525
413431.64	3773321.14	84.37426	413385.84	3773331.21	84.04397
413397.29	3773331.21	83.33900	413408.74	3773331.21	82.58561
413420.19	3773331.21	81.89310	413431.64	3773331.21	80.98970
413385.84	3773341.28	80.38794	413397.29	3773341.28	79.73468
413408.74	3773341.28	78.99443	413420.19	3773341.28	78.36946
413431.64	3773341.28	77.80106	413385.84	3773351.35	76.99962
413397.29	3773351.35	76.37052	413408.74	3773351.35	75.77731
413420.19	3773351.35	75.24588	413431.64	3773351.35	74.74853

413385.84	3773361.42	73.96495	413397.29	3773361.42	73.28098
413408.74	3773361.42	72.69794	413420.19	3773361.42	72.21399
413431.64	3773361.42	71.72898	413385.84	3773371.49	71.00858
413397.29	3773371.49	70.36684	413408.74	3773371.49	69.76588
413420.19	3773371.49	69.41825	413431.64	3773371.49	68.97805

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLING ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 ,
STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** 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
413385.84	3773381.56	68.09703	413397.29	3773381.56	67.42719
413408.74	3773381.56	66.77191	413420.19	3773381.56	66.43557
413431.64	3773381.56	66.04207	413385.84	3773391.63	64.64487
413397.29	3773391.63	64.13845	413408.74	3773391.63	63.59636
413420.19	3773391.63	63.11132	413431.64	3773391.63	62.57587
413385.84	3773401.70	61.25159	413397.29	3773401.70	60.84755
413408.74	3773401.70	60.39615	413420.19	3773401.70	59.84668
413431.64	3773401.70	59.34490	413416.45	3772548.02	108.96495
413435.76	3772548.02	104.56445	413416.45	3772557.84	112.28909
413435.76	3772557.84	107.92577	413416.45	3772567.66	115.76755
413435.76	3772567.66	111.43558	413416.45	3772577.48	119.44278
413435.76	3772577.48	115.15940	413416.45	3772587.30	123.34436
413435.76	3772587.30	118.93413	413416.45	3772597.12	127.51076
413435.76	3772597.12	122.88363	413416.45	3772606.94	131.87840
413435.76	3772606.94	127.06766	413416.45	3772616.76	136.53459
413435.76	3772616.76	131.73201	413416.45	3772626.58	141.51362
413435.76	3772626.58	136.60248	413416.45	3772636.40	146.81779
413435.76	3772636.40	141.82937	413416.45	3772646.22	152.51064
413435.76	3772646.22	147.36684	413416.45	3772656.04	158.68267
413435.76	3772656.04	153.33212	413416.45	3772665.86	165.29823
413435.76	3772665.86	159.61891	413416.45	3772675.68	172.34913
413435.76	3772675.68	166.56776	413416.45	3772685.50	179.72987
413435.76	3772685.50	173.68541	413416.45	3772695.32	187.53390
413435.76	3772695.32	181.28575	413416.45	3772705.14	196.17341
413435.76	3772705.14	189.48502	413416.45	3772714.96	205.33067
413435.76	3772714.96	197.75810	413416.45	3772724.78	214.76868
413435.76	3772724.78	206.60759	413416.45	3772734.60	225.60968
413435.76	3772734.60	216.53327	413416.45	3772744.42	237.37301
413435.76	3772744.42	227.72583	412985.25	3772512.70	250.42826
413000.04	3772512.70	250.61236	413014.83	3772512.70	250.64174

413029.62	3772512.70	246.74991	413044.41	3772512.70	240.82527
413059.20	3772512.70	233.56453	413073.99	3772512.70	225.45683
413088.78	3772512.70	216.92603	413103.57	3772512.70	209.83578
413118.36	3772512.70	201.02327	412985.25	3772521.02	259.91380
413000.04	3772521.02	260.31652	413014.83	3772521.02	260.55223
413029.62	3772521.02	258.36282	413044.41	3772521.02	252.65890
413059.20	3772521.02	244.93616	413073.99	3772521.02	235.63210
413088.78	3772521.02	225.92822	413103.57	3772521.02	218.64205
413118.36	3772521.02	208.93812	412985.25	3772529.34	270.96251
413000.04	3772529.34	272.15950	413014.83	3772529.34	270.82685

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLING ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 ,
STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** 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
413029.62	3772529.34	269.11599	413044.41	3772529.34	262.75838
413059.20	3772529.34	254.71514	413073.99	3772529.34	245.58909
413088.78	3772529.34	235.69604	413103.57	3772529.34	227.29647
413118.36	3772529.34	217.37763	412723.75	3772703.89	161.35927
412733.75	3772703.89	167.90059	412743.75	3772703.89	172.36938
412723.75	3772713.89	163.69601	412733.75	3772713.89	170.49379
412743.75	3772713.89	176.00254	412753.75	3772713.89	181.44901
412723.75	3772723.89	166.09605	412733.75	3772723.89	172.67530
412743.75	3772723.89	179.23169	412753.75	3772723.89	185.56467
412763.75	3772723.89	192.22839	412723.75	3772733.89	168.65603
412733.75	3772733.89	175.76580	412743.75	3772733.89	183.01914
412753.75	3772733.89	189.95079	412763.75	3772733.89	196.73924
412773.75	3772733.89	203.87514	412723.75	3772743.89	170.74918
412733.75	3772743.89	178.09296	412743.75	3772743.89	185.66180
412753.75	3772743.89	194.15106	412763.75	3772743.89	201.71561
412773.75	3772743.89	208.67481	412783.75	3772743.89	216.68541
412723.75	3772753.89	172.84592	412733.75	3772753.89	180.25599
412743.75	3772753.89	187.87427	412753.75	3772753.89	195.63466
412763.75	3772753.89	204.42395	412773.75	3772753.89	213.08897
412783.75	3772753.89	221.18652	412793.75	3772753.89	228.57035
412723.75	3772763.89	175.10480	412733.75	3772763.89	181.90019
412743.75	3772763.89	189.99908	412753.75	3772763.89	198.33845
412763.75	3772763.89	205.72967	412773.75	3772763.89	215.25485
412783.75	3772763.89	225.13723	412793.75	3772763.89	233.95787
412723.75	3772773.89	176.36055	412733.75	3772773.89	184.03488

412743.75	3772773.89	191.87139	412753.75	3772773.89	199.73938
412763.75	3772773.89	208.22198	412773.75	3772773.89	217.56332
412783.75	3772773.89	227.02250	412793.75	3772773.89	237.09399
412803.75	3772773.89	247.20286	412813.75	3772773.89	256.40264
412723.75	3772783.89	177.27403	412733.75	3772783.89	185.36045
412743.75	3772783.89	193.29256	412753.75	3772783.89	201.17471
412763.75	3772783.89	209.97563	412773.75	3772783.89	219.20109
412783.75	3772783.89	228.69100	412793.75	3772783.89	238.67720
412803.75	3772783.89	249.49416	412813.75	3772783.89	260.12156
412723.75	3772793.89	179.02282	412733.75	3772793.89	186.93328
412743.75	3772793.89	194.70844	412753.75	3772793.89	203.23707
412763.75	3772793.89	212.11733	412773.75	3772793.89	220.67432
412783.75	3772793.89	230.42445	412793.75	3772793.89	240.72875
412803.75	3772793.89	251.40642	412813.75	3772793.89	262.55952
412713.75	3772803.89	172.50831	412723.75	3772803.89	180.13047

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: IDLING ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 ,
STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** 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
412733.75	3772803.89	187.92561	412743.75	3772803.89	196.19203
412753.75	3772803.89	204.68553	412763.75	3772803.89	213.31804
412773.75	3772803.89	222.96989	412783.75	3772803.89	232.89718
412793.75	3772803.89	243.68232	412803.75	3772803.89	253.97242
412813.75	3772803.89	265.35571	412713.75	3772813.89	172.88715
412723.75	3772813.89	180.28458	412733.75	3772813.89	187.96528
412743.75	3772813.89	196.28399	412753.75	3772813.89	204.88942
412763.75	3772813.89	214.19261	412773.75	3772813.89	223.74523
412783.75	3772813.89	233.52382	412793.75	3772813.89	244.27597
412803.75	3772813.89	255.45773	412813.75	3772813.89	267.24134
413337.74	3772505.92	115.27331	413366.05	3772505.76	107.82136
413390.43	3772506.36	102.26067	413426.03	3772501.18	93.30421
413255.11	3773190.00	177.62946 MEIR	412845.65	3772517.02	174.97515
412860.44	3772517.02	185.03040	412875.23	3772517.02	196.28430
412890.02	3772517.02	206.70593	412904.81	3772517.02	217.15447
412919.60	3772517.02	227.67992	412934.39	3772517.02	237.01469
412949.18	3772517.02	243.95195	412963.97	3772517.02	249.86251
412978.76	3772517.02	254.56358	412845.65	3772525.34	178.92567
412860.44	3772525.34	189.91181	412875.23	3772525.34	200.20744
412890.02	3772525.34	212.21650	412904.81	3772525.34	222.95444
412919.60	3772525.34	234.10821	412934.39	3772525.34	245.15105
412949.18	3772525.34	253.34005	412963.97	3772525.34	259.33304
412978.76	3772525.34	263.58924	412845.65	3772533.66	182.92959
412860.44	3772533.66	193.67402	412875.23	3772533.66	205.54084
412890.02	3772533.66	217.69950	412904.81	3772533.66	229.55727
412919.60	3772533.66	240.64042	412934.39	3772533.66	253.06762
412949.18	3772533.66	262.06652	412963.97	3772533.66	269.65247
412978.76	3772533.66	274.59134	413242.12	3772517.03	150.22902
413259.93	3772516.53	144.26174	413279.23	3772515.44	137.21295
413310.78	3772511.61	125.44517	413297.64	3772512.87	130.16063
413227.57	3772517.61	155.90987 Student MER			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ON-SITET ***
INCLUDING SOURCE(S): PAREA1 ,

*** 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
413385.84	3773220.44	5.32848	413397.29	3773220.44	5.41978
413408.74	3773220.44	5.49866	413420.19	3773220.44	5.56494
413431.64	3773220.44	5.61930	413385.84	3773230.51	4.97015
413397.29	3773230.51	5.06305	413408.74	3773230.51	5.14517
413420.19	3773230.51	5.21571	413431.64	3773230.51	5.27565
413385.84	3773240.58	4.64098	413397.29	3773240.58	4.73429
413408.74	3773240.58	4.81767	413420.19	3773240.58	4.89117
413431.64	3773240.58	4.95475	413385.84	3773250.65	4.33793
413397.29	3773250.65	4.43023	413408.74	3773250.65	4.51431
413420.19	3773250.65	4.58906	413431.64	3773250.65	4.65544
413385.84	3773260.72	4.05864	413397.29	3773260.72	4.14947
413408.74	3773260.72	4.23284	413420.19	3773260.72	4.30835
413431.64	3773260.72	4.37617	413385.84	3773270.79	3.80122
413397.29	3773270.79	3.88986	413408.74	3773270.79	3.97215
413420.19	3773270.79	4.04725	413431.64	3773270.79	4.11575
413385.84	3773280.86	3.56407	413397.29	3773280.86	3.65004
413408.74	3773280.86	3.73061	413420.19	3773280.86	3.80475
413431.64	3773280.86	3.87311	413385.84	3773290.93	3.34560
413397.29	3773290.93	3.42854	413408.74	3773290.93	3.50684
413420.19	3773290.93	3.57967	413431.64	3773290.93	3.64735
413385.84	3773301.00	3.14423	413397.29	3773301.00	3.22375
413408.74	3773301.00	3.29940	413420.19	3773301.00	3.37057
413431.64	3773301.00	3.43742	413385.84	3773311.07	2.95827
413397.29	3773311.07	3.03426	413408.74	3773311.07	3.10725
413420.19	3773311.07	3.17642	413431.64	3773311.07	3.24193
413385.84	3773321.14	2.78653	413397.29	3773321.14	2.85903
413408.74	3773321.14	2.92905	413420.19	3773321.14	2.99612
413431.64	3773321.14	3.06001	413385.84	3773331.21	2.62747
413397.29	3773331.21	2.69646	413408.74	3773331.21	2.76360
413420.19	3773331.21	2.82851	413431.64	3773331.21	2.89060
413385.84	3773341.28	2.48027	413397.29	3773341.28	2.54595
413408.74	3773341.28	2.61010	413420.19	3773341.28	2.67264
413431.64	3773341.28	2.73302	413385.84	3773351.35	2.34428
413397.29	3773351.35	2.40661	413408.74	3773351.35	2.46789
413420.19	3773351.35	2.52793	413431.64	3773351.35	2.58619
413385.84	3773361.42	2.21868	413397.29	3773361.42	2.27761
413408.74	3773361.42	2.33586	413420.19	3773361.42	2.39321

413431.64	3773361.42	2.44923	413385.84	3773371.49	2.10217
413397.29	3773371.49	2.15793	413408.74	3773371.49	2.21320
413420.19	3773371.49	2.26801	413431.64	3773371.49	2.32166

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ON-SITET ***
INCLUDING SOURCE(S): PAREA1 ,

*** 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
413385.84	3773381.56	1.99396	413397.29	3773381.56	2.04656
413408.74	3773381.56	2.09885	413420.19	3773381.56	2.15110
413431.64	3773381.56	2.20233	413385.84	3773391.63	1.89205
413397.29	3773391.63	1.94175	413408.74	3773391.63	1.99136
413420.19	3773391.63	2.04073	413431.64	3773391.63	2.08944
413385.84	3773401.70	1.48133	413397.29	3773401.70	1.51501
413408.74	3773401.70	1.54919	413420.19	3773401.70	1.58379
413431.64	3773401.70	1.61899	413416.45	3772548.02	3.70651
413435.76	3772548.02	3.58144	413416.45	3772557.84	3.86576
413435.76	3772557.84	3.73814	413416.45	3772567.66	4.03856
413435.76	3772567.66	3.90771	413416.45	3772577.48	4.22624
413435.76	3772577.48	4.09168	413416.45	3772587.30	4.43067
413435.76	3772587.30	4.29089	413416.45	3772597.12	4.65361
413435.76	3772597.12	4.50745	413416.45	3772606.94	4.89693
413435.76	3772606.94	4.74293	413416.45	3772616.76	5.16280
413435.76	3772616.76	4.99967	413416.45	3772626.58	5.45362
413435.76	3772626.58	5.27934	413416.45	3772636.40	5.77183
413435.76	3772636.40	5.58395	413416.45	3772646.22	6.12019
413435.76	3772646.22	5.91525	413416.45	3772656.04	6.50153
413435.76	3772656.04	6.27551	413416.45	3772665.86	6.91828
413435.76	3772665.86	6.66676	413416.45	3772675.68	7.37304
413435.76	3772675.68	7.09074	413416.45	3772685.50	7.86759
413435.76	3772685.50	7.54911	413416.45	3772695.32	8.40506
413435.76	3772695.32	8.04304	413416.45	3772705.14	8.98732
413435.76	3772705.14	8.57359	413416.45	3772714.96	9.61537
413435.76	3772714.96	9.14030	413416.45	3772724.78	10.29003
413435.76	3772724.78	9.74367	413416.45	3772734.60	11.01076
413435.76	3772734.60	10.38328	413416.45	3772744.42	11.77791
413435.76	3772744.42	11.05950	412985.25	3772512.70	10.39199
413000.04	3772512.70	10.47614	413014.83	3772512.70	10.51261
413029.62	3772512.70	10.50339	413044.41	3772512.70	10.43941
413059.20	3772512.70	10.31887	413073.99	3772512.70	10.14415
413088.78	3772512.70	9.91675	413103.57	3772512.70	9.64130
413118.36	3772512.70	9.32048	412985.25	3772521.02	10.75406

413000.04	3772521.02	10.85474	413014.83	3772521.02	10.90507
413029.62	3772521.02	10.90799	413044.41	3772521.02	10.85135
413059.20	3772521.02	10.73257	413073.99	3772521.02	10.55529
413088.78	3772521.02	10.32083	413103.57	3772521.02	10.03404
413118.36	3772521.02	9.69823	412985.25	3772529.34	11.13321
413000.04	3772529.34	11.25374	413014.83	3772529.34	11.31996

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ON-SITET ***
INCLUDING SOURCE(S): PAREA1 ,

*** 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
413029.62	3772529.34	11.33350	413044.41	3772529.34	11.28407
413059.20	3772529.34	11.16850	413073.99	3772529.34	10.98951
413088.78	3772529.34	10.74799	413103.57	3772529.34	10.44867
413118.36	3772529.34	10.09635	412723.75	3772703.89	6.07046
412733.75	3772703.89	6.34976	412743.75	3772703.89	6.62799
412723.75	3772713.89	6.02690	412733.75	3772713.89	6.30771
412743.75	3772713.89	6.59299	412753.75	3772713.89	6.89317
412723.75	3772723.89	5.97544	412733.75	3772723.89	6.25576
412743.75	3772723.89	6.54703	412753.75	3772723.89	6.85743
412763.75	3772723.89	7.18806	412723.75	3772733.89	5.91757
412733.75	3772733.89	6.19645	412743.75	3772733.89	6.49235
412753.75	3772733.89	6.80994	412763.75	3772733.89	7.14867
412773.75	3772733.89	7.50842	412723.75	3772743.89	5.85422
412733.75	3772743.89	6.13127	412743.75	3772743.89	6.42777
412753.75	3772743.89	6.74683	412763.75	3772743.89	7.08782
412773.75	3772743.89	7.45123	412783.75	3772743.89	7.84257
412723.75	3772753.89	5.78620	412733.75	3772753.89	6.06039
412743.75	3772753.89	6.35418	412753.75	3772753.89	6.67019
412763.75	3772753.89	7.00901	412773.75	3772753.89	7.37357
412783.75	3772753.89	7.76680	412793.75	3772753.89	8.17662
412723.75	3772763.89	5.71248	412733.75	3772763.89	5.98323
412743.75	3772763.89	6.27325	412753.75	3772763.89	6.58517
412763.75	3772763.89	6.92133	412773.75	3772763.89	7.28493
412783.75	3772763.89	7.67761	412793.75	3772763.89	8.09629
412723.75	3772773.89	5.63232	412733.75	3772773.89	5.89914
412743.75	3772773.89	6.18493	412753.75	3772773.89	6.49243
412763.75	3772773.89	6.82442	412773.75	3772773.89	7.18438
412783.75	3772773.89	7.57396	412793.75	3772773.89	7.99410
412803.75	3772773.89	8.44913	412813.75	3772773.89	8.93549
412723.75	3772783.89	5.54610	412733.75	3772783.89	5.80844
412743.75	3772783.89	6.08963	412753.75	3772783.89	6.39197

412763.75	3772783.89	6.71883	412773.75	3772783.89	7.07295
412783.75	3772783.89	7.45675	412793.75	3772783.89	7.87242
412803.75	3772783.89	8.32413	412813.75	3772783.89	8.81062
412723.75	3772793.89	5.45588	412733.75	3772793.89	5.71302
412743.75	3772793.89	5.98871	412753.75	3772793.89	6.28554
412763.75	3772793.89	6.60630	412773.75	3772793.89	6.95354
412783.75	3772793.89	7.33013	412793.75	3772793.89	7.73960
412803.75	3772793.89	8.18580	412813.75	3772793.89	8.66925
412713.75	3772803.89	5.12647	412723.75	3772803.89	5.36067

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ON-SITET ***
INCLUDING SOURCE(S): PAREA1 ,

*** 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
412733.75	3772803.89	5.61212		412743.75	3772803.89	5.88179
412753.75	3772803.89	6.17215		412763.75	3772803.89	6.48572
412773.75	3772803.89	6.82545		412783.75	3772803.89	7.19364
412793.75	3772803.89	7.59493		412803.75	3772803.89	8.03249
412813.75	3772803.89	8.50846		412713.75	3772813.89	5.03151
412723.75	3772813.89	5.25983		412733.75	3772813.89	5.50492
412743.75	3772813.89	5.76794		412753.75	3772813.89	6.05120
412763.75	3772813.89	6.35690		412773.75	3772813.89	6.68811
412783.75	3772813.89	7.04693		412793.75	3772813.89	7.43798
412803.75	3772813.89	7.86434		412813.75	3772813.89	8.32882
413337.74	3772505.92	3.89215		413366.05	3772505.76	3.55930
413390.43	3772506.36	3.34261		413426.03	3772501.18	3.03642
413255.11	3773190.00	4.65393	MEIR	412845.65	3772517.02	8.19799
412860.44	3772517.02	8.51082		412875.23	3772517.02	8.82433
412890.02	3772517.02	9.12870		412904.81	3772517.02	9.41826
412919.60	3772517.02	9.69299		412934.39	3772517.02	9.94838
412949.18	3772517.02	10.17358		412963.97	3772517.02	10.36533
412978.76	3772517.02	10.52242		412845.65	3772525.34	8.35802
412860.44	3772525.34	8.69153		412875.23	3772525.34	9.02601
412890.02	3772525.34	9.35255		412904.81	3772525.34	9.66508
412919.60	3772525.34	9.96372		412934.39	3772525.34	10.24273
412949.18	3772525.34	10.49161		412963.97	3772525.34	10.70669
412978.76	3772525.34	10.88456		412845.65	3772533.66	8.51858
412860.44	3772533.66	8.87348		412875.23	3772533.66	9.22975
412890.02	3772533.66	9.57998		412904.81	3772533.66	9.91800
412919.60	3772533.66	10.24210		412934.39	3772533.66	10.54695
412949.18	3772533.66	10.82182		412963.97	3772533.66	11.06237
412978.76	3772533.66	11.26371		413242.12	3772517.03	5.97936
413259.93	3772516.53	5.51199		413279.23	3772515.44	5.04603
413310.78	3772511.61	4.37624		413297.64	3772512.87	4.63028
413227.57	3772517.61	6.39591	Student MER			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARDEQU ***
INCLUDING SOURCE(S): PAREA2 ,

*** 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
413385.84	3773220.44	0.60369	413397.29	3773220.44	0.59862
413408.74	3773220.44	0.59247	413420.19	3773220.44	0.58529
413431.64	3773220.44	0.57730	413385.84	3773230.51	0.56485
413397.29	3773230.51	0.56092	413408.74	3773230.51	0.55615
413420.19	3773230.51	0.55033	413431.64	3773230.51	0.54374
413385.84	3773240.58	0.52940	413397.29	3773240.58	0.52649
413408.74	3773240.58	0.52266	413420.19	3773240.58	0.51788
413431.64	3773240.58	0.51245	413385.84	3773250.65	0.49675
413397.29	3773250.65	0.49456	413408.74	3773250.65	0.49159
413420.19	3773250.65	0.48770	413431.64	3773250.65	0.48318
413385.84	3773260.72	0.46659	413397.29	3773260.72	0.46502
413408.74	3773260.72	0.46272	413420.19	3773260.72	0.45955
413431.64	3773260.72	0.45583	413385.84	3773270.79	0.43870
413397.29	3773270.79	0.43765	413408.74	3773270.79	0.43592
413420.19	3773270.79	0.43330	413431.64	3773270.79	0.43019
413385.84	3773280.86	0.41294	413397.29	3773280.86	0.41231
413408.74	3773280.86	0.41103	413420.19	3773280.86	0.40887
413431.64	3773280.86	0.40627	413385.84	3773290.93	0.38918
413397.29	3773290.93	0.38885	413408.74	3773290.93	0.38793
413420.19	3773290.93	0.38620	413431.64	3773290.93	0.38407
413385.84	3773301.00	0.36725	413397.29	3773301.00	0.36711
413408.74	3773301.00	0.36645	413420.19	3773301.00	0.36513
413431.64	3773301.00	0.36346	413385.84	3773311.07	0.34692
413397.29	3773311.07	0.34693	413408.74	3773311.07	0.34650
413420.19	3773311.07	0.34555	413431.64	3773311.07	0.34424
413385.84	3773321.14	0.32803	413397.29	3773321.14	0.32814
413408.74	3773321.14	0.32791	413420.19	3773321.14	0.32730
413431.64	3773321.14	0.32636	413385.84	3773331.21	0.31027
413397.29	3773331.21	0.31054	413408.74	3773331.21	0.31055
413420.19	3773331.21	0.31026	413431.64	3773331.21	0.30968
413385.84	3773341.28	0.29381	413397.29	3773341.28	0.29423
413408.74	3773341.28	0.29437	413420.19	3773341.28	0.29438
413431.64	3773341.28	0.29412	413385.84	3773351.35	0.27859
413397.29	3773351.35	0.27908	413408.74	3773351.35	0.27940
413420.19	3773351.35	0.27960	413431.64	3773351.35	0.27957
413385.84	3773361.42	0.26461	413397.29	3773361.42	0.26513
413408.74	3773361.42	0.26550	413420.19	3773361.42	0.26582

413431.64	3773361.42	0.26595	413385.84	3773371.49	0.25160
413397.29	3773371.49	0.25214	413408.74	3773371.49	0.25255
413420.19	3773371.49	0.25296	413431.64	3773371.49	0.25320

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARDEQU ***
INCLUDING SOURCE(S): PAREA2 ,

*** 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
413385.84	3773381.56	0.23936	413397.29	3773381.56	0.23991
413408.74	3773381.56	0.24032	413420.19	3773381.56	0.24081
413431.64	3773381.56	0.24110	413385.84	3773391.63	0.22731
413397.29	3773391.63	0.22792	413408.74	3773391.63	0.22839
413420.19	3773391.63	0.22880	413431.64	3773391.63	0.22906
413385.84	3773401.70	0.21613	413397.29	3773401.70	0.21679
413408.74	3773401.70	0.21729	413420.19	3773401.70	0.21765
413431.64	3773401.70	0.21787	413416.45	3772548.02	0.09693
413435.76	3772548.02	0.09750	413416.45	3772557.84	0.10523
413435.76	3772557.84	0.10572	413416.45	3772567.66	0.11449
413435.76	3772567.66	0.11487	413416.45	3772577.48	0.12485
413435.76	3772577.48	0.12504	413416.45	3772587.30	0.13644
413435.76	3772587.30	0.13639	413416.45	3772597.12	0.14941
413435.76	3772597.12	0.14906	413416.45	3772606.94	0.16397
413435.76	3772606.94	0.16320	413416.45	3772616.76	0.18031
413435.76	3772616.76	0.17895	413416.45	3772626.58	0.19867
413435.76	3772626.58	0.19653	413416.45	3772636.40	0.21929
413435.76	3772636.40	0.21616	413416.45	3772646.22	0.24245
413435.76	3772646.22	0.23806	413416.45	3772656.04	0.26843
413435.76	3772656.04	0.26246	413416.45	3772665.86	0.29760
413435.76	3772665.86	0.28963	413416.45	3772675.68	0.33031
413435.76	3772675.68	0.31985	413416.45	3772685.50	0.36697
413435.76	3772685.50	0.35338	413416.45	3772695.32	0.40788
413435.76	3772695.32	0.39048	413416.45	3772705.14	0.45343
413435.76	3772705.14	0.43145	413416.45	3772714.96	0.50396
413435.76	3772714.96	0.47656	413416.45	3772724.78	0.55977
413435.76	3772724.78	0.52595	413416.45	3772734.60	0.62108
413435.76	3772734.60	0.57967	413416.45	3772744.42	0.68788
413435.76	3772744.42	0.63752	412985.25	3772512.70	0.10640
413000.04	3772512.70	0.10715	413014.83	3772512.70	0.10734
413029.62	3772512.70	0.10694	413044.41	3772512.70	0.10595
413059.20	3772512.70	0.10441	413073.99	3772512.70	0.10235
413088.78	3772512.70	0.09987	413103.57	3772512.70	0.09702
413118.36	3772512.70	0.09394	412985.25	3772521.02	0.11161

413000.04	3772521.02	0.11258	413014.83	3772521.02	0.11295
413029.62	3772521.02	0.11267	413044.41	3772521.02	0.11175
413059.20	3772521.02	0.11023	413073.99	3772521.02	0.10814
413088.78	3772521.02	0.10556	413103.57	3772521.02	0.10258
413118.36	3772521.02	0.09932	412985.25	3772529.34	0.11717
413000.04	3772529.34	0.11838	413014.83	3772529.34	0.11895

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARDEQU ***
INCLUDING SOURCE(S): PAREA2 ,

*** 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
413029.62	3772529.34	0.11883	413044.41	3772529.34	0.11800
413059.20	3772529.34	0.11651	413073.99	3772529.34	0.11438
413088.78	3772529.34	0.11171	413103.57	3772529.34	0.10860
413118.36	3772529.34	0.10516	412723.75	3772703.89	0.09442
412733.75	3772703.89	0.09875	412743.75	3772703.89	0.10343
412723.75	3772713.89	0.09700	412733.75	3772713.89	0.10151
412743.75	3772713.89	0.10640	412753.75	3772713.89	0.11163
412723.75	3772723.89	0.09964	412733.75	3772723.89	0.10436
412743.75	3772723.89	0.10945	412753.75	3772723.89	0.11490
412763.75	3772723.89	0.12076	412723.75	3772733.89	0.10236
412733.75	3772733.89	0.10729	412743.75	3772733.89	0.11259
412753.75	3772733.89	0.11827	412763.75	3772733.89	0.12438
412773.75	3772733.89	0.13098	412723.75	3772743.89	0.10514
412733.75	3772743.89	0.11028	412743.75	3772743.89	0.11580
412753.75	3772743.89	0.12173	412763.75	3772743.89	0.12813
412773.75	3772743.89	0.13504	412783.75	3772743.89	0.14249
412723.75	3772753.89	0.10797	412733.75	3772753.89	0.11333
412743.75	3772753.89	0.11910	412753.75	3772753.89	0.12531
412763.75	3772753.89	0.13201	412773.75	3772753.89	0.13925
412783.75	3772753.89	0.14707	412793.75	3772753.89	0.15559
412723.75	3772763.89	0.11084	412733.75	3772763.89	0.11644
412743.75	3772763.89	0.12246	412753.75	3772763.89	0.12896
412763.75	3772763.89	0.13598	412773.75	3772763.89	0.14355
412783.75	3772763.89	0.15174	412793.75	3772763.89	0.16068
412723.75	3772773.89	0.11377	412733.75	3772773.89	0.11960
412743.75	3772773.89	0.12589	412753.75	3772773.89	0.13268
412763.75	3772773.89	0.14001	412773.75	3772773.89	0.14793
412783.75	3772773.89	0.15654	412793.75	3772773.89	0.16588
412803.75	3772773.89	0.17607	412813.75	3772773.89	0.18722
412723.75	3772783.89	0.11673	412733.75	3772783.89	0.12280
412743.75	3772783.89	0.12937	412753.75	3772783.89	0.13645

412763.75	3772783.89	0.14411	412773.75	3772783.89	0.15242
412783.75	3772783.89	0.16142	412793.75	3772783.89	0.17122
412803.75	3772783.89	0.18192	412813.75	3772783.89	0.19364
412723.75	3772793.89	0.11971	412733.75	3772793.89	0.12603
412743.75	3772793.89	0.13286	412753.75	3772793.89	0.14025
412763.75	3772793.89	0.14825	412773.75	3772793.89	0.15692
412783.75	3772793.89	0.16635	412793.75	3772793.89	0.17663
412803.75	3772793.89	0.18784	412813.75	3772793.89	0.20015
412713.75	3772803.89	0.11663	412723.75	3772803.89	0.12271

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARDEQU ***
INCLUDING SOURCE(S): PAREA2 ,

*** 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
412733.75	3772803.89	0.12927		412743.75	3772803.89	0.13637
412753.75	3772803.89	0.14407		412763.75	3772803.89	0.15241
412773.75	3772803.89	0.16147		412783.75	3772803.89	0.17133
412793.75	3772803.89	0.18207		412803.75	3772803.89	0.19383
412813.75	3772803.89	0.20673		412713.75	3772813.89	0.11940
412723.75	3772813.89	0.12571		412733.75	3772813.89	0.13252
412743.75	3772813.89	0.13990		412753.75	3772813.89	0.14790
412763.75	3772813.89	0.15658		412773.75	3772813.89	0.16602
412783.75	3772813.89	0.17631		412793.75	3772813.89	0.18755
412803.75	3772813.89	0.19986		412813.75	3772813.89	0.21338
413337.74	3772505.92	0.06746		413366.05	3772505.76	0.06811
413390.43	3772506.36	0.06919		413426.03	3772501.18	0.06773
413255.11	3773190.00	0.75467	MEIR	412845.65	3772517.02	0.08319
412860.44	3772517.02	0.08662		412875.23	3772517.02	0.09002
412890.02	3772517.02	0.09336		412904.81	3772517.02	0.09657
412919.60	3772517.02	0.09960		412934.39	3772517.02	0.10237
412949.18	3772517.02	0.10482		412963.97	3772517.02	0.10689
412978.76	3772517.02	0.10851		412845.65	3772525.34	0.08586
412860.44	3772525.34	0.08955		412875.23	3772525.34	0.09322
412890.02	3772525.34	0.09684		412904.81	3772525.34	0.10035
412919.60	3772525.34	0.10369		412934.39	3772525.34	0.10677
412949.18	3772525.34	0.10953		412963.97	3772525.34	0.11190
412978.76	3772525.34	0.11379		412845.65	3772533.66	0.08864
412860.44	3772533.66	0.09260		412875.23	3772533.66	0.09656
412890.02	3772533.66	0.10048		412904.81	3772533.66	0.10432
412919.60	3772533.66	0.10798		412934.39	3772533.66	0.11141
412949.18	3772533.66	0.11452		412963.97	3772533.66	0.11720
412978.76	3772533.66	0.11941		413242.12	3772517.03	0.07471
413259.93	3772516.53	0.07327		413279.23	3772515.44	0.07199
413310.78	3772511.61	0.06985		413297.64	3772512.87	0.07045
413227.57	3772517.61	0.07640	Student MER			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF-SITE ***
INCLUDING SOURCE(S): L0001199 , L0001200 , L0001201 , L0001202 , L0001203 ,
L0001204 , L0001205 , L0001206 , L0001207 , L0001208 , L0001209 , L0001210 , L0001211 ,
L0001212 , L0001213 , L0001214 , L0001215 , L0001216 , L0001217 , L0001218 , L0001219 ,
L0001220 , L0001221 , L0001222 , L0001223 , L0001224 , L0001225 , L0001226 , . . . ,

*** 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
413385.84	3773220.44	3.86038	413397.29	3773220.44	3.76406
413408.74	3773220.44	3.67266	413420.19	3773220.44	3.58393
413431.64	3773220.44	3.49790	413385.84	3773230.51	3.76370
413397.29	3773230.51	3.67494	413408.74	3773230.51	3.59092
413420.19	3773230.51	3.50664	413431.64	3773230.51	3.42227
413385.84	3773240.58	3.67221	413397.29	3773240.58	3.58808
413408.74	3773240.58	3.50849	413420.19	3773240.58	3.42823
413431.64	3773240.58	3.35022	413385.84	3773250.65	3.58300
413397.29	3773250.65	3.50312	413408.74	3773250.65	3.42519
413420.19	3773250.65	3.34903	413431.64	3773250.65	3.27492
413385.84	3773260.72	3.49596	413397.29	3773260.72	3.42019
413408.74	3773260.72	3.34609	413420.19	3773260.72	3.27354
413431.64	3773260.72	3.20289	413385.84	3773270.79	3.41110
413397.29	3773270.79	3.33922	413408.74	3773270.79	3.26882
413420.19	3773270.79	3.19958	413431.64	3773270.79	3.13215
413385.84	3773280.86	3.32988	413397.29	3773280.86	3.26031
413408.74	3773280.86	3.19334	413420.19	3773280.86	3.12726
413431.64	3773280.86	3.06475	413385.84	3773290.93	3.24945
413397.29	3773290.93	3.18347	413408.74	3773290.93	3.11973
413420.19	3773290.93	3.05829	413431.64	3773290.93	2.99821
413385.84	3773301.00	3.17141	413397.29	3773301.00	3.10980
413408.74	3773301.00	3.04916	413420.19	3773301.00	2.99018
413431.64	3773301.00	2.93317	413385.84	3773311.07	3.09574
413397.29	3773311.07	3.03682	413408.74	3773311.07	2.97959
413420.19	3773311.07	2.92276	413431.64	3773311.07	2.86825
413385.84	3773321.14	3.02169	413397.29	3773321.14	2.96588
413408.74	3773321.14	2.91160	413420.19	3773321.14	2.85777
413431.64	3773321.14	2.80501	413385.84	3773331.21	2.94911
413397.29	3773331.21	2.89626	413408.74	3773331.21	2.84442
413420.19	3773331.21	2.79348	413431.64	3773331.21	2.74338
413385.84	3773341.28	2.87473	413397.29	3773341.28	2.82483
413408.74	3773341.28	2.77572	413420.19	3773341.28	2.72781
413431.64	3773341.28	2.68065	413385.84	3773351.35	2.80606
413397.29	3773351.35	2.75864	413408.74	3773351.35	2.71214

413420.19	3773351.35	2.66682	413431.64	3773351.35	2.62215
413385.84	3773361.42	2.74031	413397.29	3773361.42	2.69506
413408.74	3773361.42	2.65056	413420.19	3773361.42	2.60752
413431.64	3773361.42	2.56504	413385.84	3773371.49	2.67660
413397.29	3773371.49	2.63327	413408.74	3773371.49	2.59087
413420.19	3773371.49	2.54987	413431.64	3773371.49	2.50948

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF-SITE ***
INCLUDING SOURCE(S): L0001199 , L0001200 , L0001201 , L0001202 , L0001203 ,
L0001204 , L0001205 , L0001206 , L0001207 , L0001208 , L0001209 , L0001210 , L0001211 ,
L0001212 , L0001213 , L0001214 , L0001215 , L0001216 , L0001217 , L0001218 , L0001219 ,
L0001220 , L0001221 , L0001222 , L0001223 , L0001224 , L0001225 , L0001226 , . . . ,

*** 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
413385.84	3773381.56	2.60937	413397.29	3773381.56	2.56227
413408.74	3773381.56	2.51947	413420.19	3773381.56	2.49115
413431.64	3773381.56	2.45456	413385.84	3773391.63	2.52054
413397.29	3773391.63	2.47986	413408.74	3773391.63	2.44145
413420.19	3773391.63	2.41120	413431.64	3773391.63	2.37608
413385.84	3773401.70	2.41847	413397.29	3773401.70	2.38524
413408.74	3773401.70	2.35218	413420.19	3773401.70	2.31934
413431.64	3773401.70	2.28701	413416.45	3772548.02	4.05636
413435.76	3772548.02	3.84284	413416.45	3772557.84	4.13043
413435.76	3772557.84	3.90916	413416.45	3772567.66	4.20498
413435.76	3772567.66	3.97578	413416.45	3772577.48	4.27993
413435.76	3772577.48	4.04260	413416.45	3772587.30	4.35516
413435.76	3772587.30	4.10957	413416.45	3772597.12	4.43053
413435.76	3772597.12	4.17658	413416.45	3772606.94	4.50594
413435.76	3772606.94	4.24353	413416.45	3772616.76	4.58123
413435.76	3772616.76	4.31028	413416.45	3772626.58	4.65625
413435.76	3772626.58	4.37669	413416.45	3772636.40	4.73083
413435.76	3772636.40	4.44259	413416.45	3772646.22	4.80479
413435.76	3772646.22	4.50788	413416.45	3772656.04	4.87791
413435.76	3772656.04	4.57243	413416.45	3772665.86	4.95008
413435.76	3772665.86	4.63603	413416.45	3772675.68	5.02109
413435.76	3772675.68	4.69851	413416.45	3772685.50	5.09075
413435.76	3772685.50	4.75972	413416.45	3772695.32	5.15879
413435.76	3772695.32	4.81948	413416.45	3772705.14	5.22497
413435.76	3772705.14	4.87767	413416.45	3772714.96	5.28906
413435.76	3772714.96	4.93415	413416.45	3772724.78	5.35083
413435.76	3772724.78	4.98851	413416.45	3772734.60	5.41001
413435.76	3772734.60	5.04051	413416.45	3772744.42	5.46619

413435.76	3772744.42	5.08978	412985.25	3772512.70	11.98210
413000.04	3772512.70	12.01290	413014.83	3772512.70	11.92676
413029.62	3772512.70	11.73419	413044.41	3772512.70	11.44425
413059.20	3772512.70	11.08054	413073.99	3772512.70	10.67040
413088.78	3772512.70	10.23509	413103.57	3772512.70	9.79204
413118.36	3772512.70	9.35118	412985.25	3772521.02	12.84055
413000.04	3772521.02	12.88697	413014.83	3772521.02	12.78812
413029.62	3772521.02	12.55888	413044.41	3772521.02	12.21157
413059.20	3772521.02	11.77879	413073.99	3772521.02	11.29743
413088.78	3772521.02	10.79400	413103.57	3772521.02	10.28867
413118.36	3772521.02	9.79239	412985.25	3772529.34	13.82482
413000.04	3772529.34	13.89552	413014.83	3772529.34	13.78104

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF-SITE ***
INCLUDING SOURCE(S): L0001199 , L0001200 , L0001201 , L0001202 , L0001203 ,
L0001204 , L0001205 , L0001206 , L0001207 , L0001208 , L0001209 , L0001210 , L0001211 ,
L0001212 , L0001213 , L0001214 , L0001215 , L0001216 , L0001217 , L0001218 , L0001219 ,
L0001220 , L0001221 , L0001222 , L0001223 , L0001224 , L0001225 , L0001226 , . . . ,

*** 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
413029.62	3772529.34	13.49879	413044.41	3772529.34	13.07473
413059.20	3772529.34	12.55466	413073.99	3772529.34	11.98578
413088.78	3772529.34	11.40058	413103.57	3772529.34	10.82183
413118.36	3772529.34	10.26164	412723.75	3772703.89	12.92709
412733.75	3772703.89	13.72525	412743.75	3772703.89	14.52126
412723.75	3772713.89	13.50748	412733.75	3772713.89	14.39946
412743.75	3772713.89	15.31571	412753.75	3772713.89	16.26183
412723.75	3772723.89	14.12584	412733.75	3772723.89	15.12822
412743.75	3772723.89	16.18857	412753.75	3772723.89	17.30912
412763.75	3772723.89	18.47928	412723.75	3772733.89	14.78705
412733.75	3772733.89	15.92302	412743.75	3772733.89	17.15724
412753.75	3772733.89	18.48991	412763.75	3772733.89	19.90152
412773.75	3772733.89	21.35813	412723.75	3772743.89	15.49361
412733.75	3772743.89	16.79281	412743.75	3772743.89	18.23339
412753.75	3772743.89	19.81504	412763.75	3772743.89	21.51708
412773.75	3772743.89	23.29990	412783.75	3772743.89	25.12966
412723.75	3772753.89	16.24028	412733.75	3772753.89	17.73876
412743.75	3772753.89	19.43473	412753.75	3772753.89	21.33323
412763.75	3772753.89	23.41612	412773.75	3772753.89	25.63839
412783.75	3772753.89	27.93426	412793.75	3772753.89	30.09926
412723.75	3772763.89	17.00797	412733.75	3772763.89	18.74683
412743.75	3772763.89	20.77066	412753.75	3772763.89	23.10397

412763.75	3772763.89	25.73743	412773.75	3772763.89	28.61343
412783.75	3772763.89	31.61586	412793.75	3772763.89	34.52547
412723.75	3772773.89	17.77897	412733.75	3772773.89	19.80247
412743.75	3772773.89	22.24348	412753.75	3772773.89	25.16808
412763.75	3772773.89	28.61546	412773.75	3772773.89	32.51994
412783.75	3772773.89	36.66733	412793.75	3772773.89	40.71142
412803.75	3772773.89	44.36975	412813.75	3772773.89	47.40258
412723.75	3772783.89	18.52600	412733.75	3772783.89	20.87049
412743.75	3772783.89	23.82044	412753.75	3772783.89	27.55275
412763.75	3772783.89	32.23862	412773.75	3772783.89	37.88394
412783.75	3772783.89	44.08545	412793.75	3772783.89	50.06086
412803.75	3772783.89	55.17658	412813.75	3772783.89	59.16059
412723.75	3772793.89	19.18999	412733.75	3772793.89	21.86679
412743.75	3772793.89	25.39580	412753.75	3772793.89	30.17664
412763.75	3772793.89	36.76299	412773.75	3772793.89	45.63416
412783.75	3772793.89	56.16573	412793.75	3772793.89	65.92014
412803.75	3772793.89	73.39755	412813.75	3772793.89	78.90240
412713.75	3772803.89	17.44805	412723.75	3772803.89	19.71453

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFF-SITE ***
INCLUDING SOURCE(S): L0001199 , L0001200 , L0001201 , L0001202 , L0001203 ,
L0001204 , L0001205 , L0001206 , L0001207 , L0001208 , L0001209 , L0001210 , L0001211 ,
L0001212 , L0001213 , L0001214 , L0001215 , L0001216 , L0001217 , L0001218 , L0001219 ,
L0001220 , L0001221 , L0001222 , L0001223 , L0001224 , L0001225 , L0001226 , . . . ,

*** 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
412733.75	3772803.89	22.68619		412743.75	3772803.89	26.77382
412753.75	3772803.89	32.71638		412763.75	3772803.89	41.94892
412773.75	3772803.89	56.96518		412783.75	3772803.89	44.49720
412793.75	3772803.89	60.64838		412803.75	3772803.89	72.82443
412813.75	3772803.89	80.37019		412713.75	3772813.89	17.65383
412723.75	3772813.89	20.02268		412733.75	3772813.89	23.18165
412743.75	3772813.89	27.64125		412753.75	3772813.89	34.46187
412763.75	3772813.89	46.18782		412773.75	3772813.89	36.49938
412783.75	3772813.89	49.55192		412793.75	3772813.89	38.83711
412803.75	3772813.89	53.47494		412813.75	3772813.89	61.84636
413337.74	3772505.92	4.63738		413366.05	3772505.76	4.28506
413390.43	3772506.36	4.01649		413426.03	3772501.18	3.62243
413255.11	3773190.00	5.78080	MEIR	412845.65	3772517.02	9.13822
412860.44	3772517.02	9.51698		412875.23	3772517.02	9.91220
412890.02	3772517.02	10.31521		412904.81	3772517.02	10.71951
412919.60	3772517.02	11.12201		412934.39	3772517.02	11.51058
412949.18	3772517.02	11.86049		412963.97	3772517.02	12.15024
412978.76	3772517.02	12.35722		412845.65	3772525.34	9.51808
412860.44	3772525.34	9.93551		412875.23	3772525.34	10.37420
412890.02	3772525.34	10.82689		412904.81	3772525.34	11.28771
412919.60	3772525.34	11.75444		412934.39	3772525.34	12.21325
412949.18	3772525.34	12.63646		412963.97	3772525.34	12.99652
412978.76	3772525.34	13.25970		412845.65	3772533.66	9.91744
412860.44	3772533.66	10.37723		412875.23	3772533.66	10.86358
412890.02	3772533.66	11.37276		412904.81	3772533.66	11.90002
412919.60	3772533.66	12.44302		412934.39	3772533.66	12.98779
412949.18	3772533.66	13.50389		412963.97	3772533.66	13.95631
412978.76	3772533.66	14.29668		413242.12	3772517.03	6.37309
413259.93	3772516.53	6.01533		413279.23	3772515.44	5.64811
413310.78	3772511.61	5.08394		413297.64	3772512.87	5.30359
413227.57	3772517.61	6.69073	Student MER			

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 *** AERMOD - VERSION 21112  ***   *** HRA for 4416 Azusa Canyon Road                                                  ***        08/09/21
 *** AERMET - VERSION  16216 ***   ***                                                                                 ***        09:06:47
                                                                                                                                  PAGE  41
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                       *** THE SUMMARY OF MAXIMUM PERIOD ( 43848 HRS) RESULTS ***


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

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

IDLING    1ST HIGHEST VALUE IS     274.59134 AT (  412978.76,  3772533.66,   124.08,   124.08,    0.00)  DC
          2ND HIGHEST VALUE IS     272.15950 AT (  413000.04,  3772529.34,   124.08,   124.08,    0.00)  DC
          3RD HIGHEST VALUE IS     270.96251 AT (  412985.25,  3772529.34,   124.03,   124.03,    0.00)  DC
          4TH HIGHEST VALUE IS     270.82685 AT (  413014.83,  3772529.34,   124.12,   124.12,    0.00)  DC
          5TH HIGHEST VALUE IS     269.65247 AT (  412963.97,  3772533.66,   124.02,   124.02,    0.00)  DC
          6TH HIGHEST VALUE IS     269.11599 AT (  413029.62,  3772529.34,   124.29,   124.29,    0.00)  DC
          7TH HIGHEST VALUE IS     267.24134 AT (  412813.75,  3772813.89,   126.56,   126.56,    0.00)  DC
          8TH HIGHEST VALUE IS     265.35571 AT (  412813.75,  3772803.89,   126.72,   126.72,    0.00)  DC
          9TH HIGHEST VALUE IS     263.58924 AT (  412978.76,  3772525.34,   123.94,   123.94,    0.00)  DC
         10TH HIGHEST VALUE IS     262.75838 AT (  413044.41,  3772529.34,   124.43,   124.43,    0.00)  DC

ON-SITET  1ST HIGHEST VALUE IS      11.77791 AT (  413416.45,  3772744.42,   127.77,   127.77,    0.00)  DC
          2ND HIGHEST VALUE IS      11.33350 AT (  413029.62,  3772529.34,   124.29,   124.29,    0.00)  DC
          3RD HIGHEST VALUE IS      11.31996 AT (  413014.83,  3772529.34,   124.12,   124.12,    0.00)  DC
          4TH HIGHEST VALUE IS      11.28407 AT (  413044.41,  3772529.34,   124.43,   124.43,    0.00)  DC
          5TH HIGHEST VALUE IS      11.26371 AT (  412978.76,  3772533.66,   124.08,   124.08,    0.00)  DC
          6TH HIGHEST VALUE IS      11.25374 AT (  413000.04,  3772529.34,   124.08,   124.08,    0.00)  DC
          7TH HIGHEST VALUE IS      11.16850 AT (  413059.20,  3772529.34,   124.51,   124.51,    0.00)  DC
          8TH HIGHEST VALUE IS      11.13321 AT (  412985.25,  3772529.34,   124.03,   124.03,    0.00)  DC
          9TH HIGHEST VALUE IS      11.06237 AT (  412963.97,  3772533.66,   124.02,   124.02,    0.00)  DC
         10TH HIGHEST VALUE IS      11.05950 AT (  413435.76,  3772744.42,   127.80,   127.80,    0.00)  DC
                                                   MER Location
YARDEQU   1ST HIGHEST VALUE IS       0.75467 AT (  413255.11,  3773190.00,   130.13,   130.13,    0.00)  DC
          2ND HIGHEST VALUE IS       0.68788 AT (  413416.45,  3772744.42,   127.77,   127.77,    0.00)  DC
          3RD HIGHEST VALUE IS       0.63752 AT (  413435.76,  3772744.42,   127.80,   127.80,    0.00)  DC
          4TH HIGHEST VALUE IS       0.62108 AT (  413416.45,  3772734.60,   127.57,   127.57,    0.00)  DC
          5TH HIGHEST VALUE IS       0.60369 AT (  413385.84,  3773220.44,   131.05,   131.05,    0.00)  DC
          6TH HIGHEST VALUE IS       0.59862 AT (  413397.29,  3773220.44,   130.99,   130.99,    0.00)  DC
          7TH HIGHEST VALUE IS       0.59247 AT (  413408.74,  3773220.44,   130.95,   130.95,    0.00)  DC
          8TH HIGHEST VALUE IS       0.58529 AT (  413420.19,  3773220.44,   130.94,   130.94,    0.00)  DC
          9TH HIGHEST VALUE IS       0.57967 AT (  413435.76,  3772734.60,   127.55,   127.55,    0.00)  DC
         10TH HIGHEST VALUE IS       0.57730 AT (  413431.64,  3773220.44,   130.94,   130.94,    0.00)  DC

OFF-SITE  1ST HIGHEST VALUE IS      80.37019 AT (  412813.75,  3772803.89,   126.72,   126.72,    0.00)  DC
          2ND HIGHEST VALUE IS      78.90240 AT (  412813.75,  3772793.89,   126.47,   126.47,    0.00)  DC
          3RD HIGHEST VALUE IS      73.39755 AT (  412803.75,  3772793.89,   126.64,   126.64,    0.00)  DC
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         4TH HIGHEST VALUE IS      72.82443 AT (  412803.75,  3772803.89,   126.75,   126.75,    0.00)  DC
         5TH HIGHEST VALUE IS      65.92014 AT (  412793.75,  3772793.89,   126.63,   126.63,    0.00)  DC
         6TH HIGHEST VALUE IS      61.84636 AT (  412813.75,  3772813.89,   126.56,   126.56,    0.00)  DC
         7TH HIGHEST VALUE IS      60.64838 AT (  412793.75,  3772803.89,   126.67,   126.67,    0.00)  DC
         8TH HIGHEST VALUE IS      59.16059 AT (  412813.75,  3772783.89,   125.96,   125.96,    0.00)  DC
         9TH HIGHEST VALUE IS      56.96518 AT (  412773.75,  3772803.89,   126.64,   126.64,    0.00)  DC
        10TH HIGHEST VALUE IS      56.16573 AT (  412783.75,  3772793.89,   126.63,   126.63,    0.00)  DC

*** AERMOD - VERSION 21112  ***   *** HRA for 4416 Azusa Canyon Road                                              ***        08/09/21
*** AERMET - VERSION  16216 ***   ***                                                                             ***        09:06:47
                                                                                                                             PAGE  43
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
*** Message Summary : AERMOD Model Execution ***
 --------- Summary of Total Messages --------

A Total of           0 Fatal Error Message(s)
A Total of          20 Warning Message(s)
A Total of        1684 Informational Message(s)

A Total of       43848 Hours Were Processed

A Total of          75 Calm Hours Identified

A Total of        1609 Missing Hours Identified (  3.67 Percent)
   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***
     ********   WARNING MESSAGES   ********
SO W320     166        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     167        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     168        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     169        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     170        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     171        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     172        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     173        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     174        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     175        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     176        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     177        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     178        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     179        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     180        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     181        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     182        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     183        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
ME W186     926       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187     926       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
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Appendix C. HARP2 Risk Calculations

Appendix

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Table C1
MER Concentration Worksheet
Input into HARP2

Source No. (a)	Source (b)	Contaminant (c)	Weight Fraction (d)	Emission Rates[1] **Annual Avg** (g/s) (e)	AERMOD Output[2] **Annual Avg** ($\mu g/m^3$) (f)	Annual Average MER Concentration ($\mu g/m^3$) (g)
Residential MER						
1	Trucks (on-site running)	DPM	1.0E+00	3.64E-06	4.650	1.69E-05
2	Trucks (off-site running)	DPM	1.0E+00	4.03E-06	5.780	2.33E-05
3	Truck Idling	DPM	1.0E+00	6.50E-07	177.6	1.15E-04
4	Yard Emissions	DPM	1.0E+00	1.89E-03	0.755	1.42E-03
Note: Maximum Exposed Receptor (MER) UTM: 413255.11, 3773190.0						For Cancer/Chronic Calculation

[1] Emission Rates, per source, from Source Emissions Inventories (Appendix A).

[2] AERMOD Output (Appendix B) at the maximum exposed receptor (MER) are based on unit emission rates for emission sources (1 g/s per source).

*HARP - HRACalc v21081 8/10/2021 9:31:14 AM - Cancer Risk - Input File: C:\!HarpOutput\IRW03\30yrResHRAIn

INDEX	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO
1	9901	DieselExhPM	1.69E-05	1.46E-08	30YrCancerDerived_InhSoilDermMMilk_FAH16to70
2	9901	DieselExhPM	2.33E-05	2.02E-08	30YrCancerDerived_InhSoilDermMMilk_FAH16to70
3	9901	DieselExhPM	0.000115	9.95E-08	30YrCancerDerived_InhSoilDermMMilk_FAH16to70
4	9901	DieselExhPM	0.00142	1.23E-06	30YrCancerDerived_InhSoilDermMMilk_FAH16to70
		SUM		1.36E-06	

*HARP - HRACalc v21081 8/10/2021 9:31:14 AM - Chronic Risk - Input File: C:\!HarpOutput\IRW03\30yrResHRAInput.hra

INDEX	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD
1	9901	DieselExhPM	1.69E-05	NonCancerChronicDerived_I	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	9901	DieselExhPM	2.33E-05	NonCancerChronicDerived_I	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	9901	DieselExhPM	0.000115	NonCancerChronicDerived_I	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	9901	DieselExhPM	0.00142	NonCancerChronicDerived_I	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
				SUM	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table C2
MER Concentration Worksheet
Input into HARP2

Source No.	Source	Contaminant	Weight Fraction	Emission Rates[1] **Annual Avg** (g/s)	AERMOD Output[2] **Annual Avg** ($\mu g/m^3$)	Annual Average MER Concentration ($\mu g/m^3$)
(a)	(b)	(c)	(d)	(e)	(f)	(g)
Student MER						
1	Trucks (on-site running)	DPM	1.0E+00	3.64E-06	6.400	2.33E-05
2	Trucks (off-site running)	DPM	1.0E+00	4.03E-06	6.690	2.70E-05
3	Truck Idling	DPM	1.0E+00	6.50E-07	155.9	1.01E-04
4	Yard Emissions	DPM	1.0E+00	1.89E-03	0.080	1.51E-04
Note: Maximum Exposed Receptor (MER) UTM: 413227.57, 3772517.61						For Cancer/Chronic Calculation

[1] Emission Rates, per source, from Source Emissions Inventories (Appendix A).

[2] AERMOD Output (Appendix B) at the maximum exposed receptor (MER) are based on unit emission rates for emission sources (1 g/s per source).

*HARP - HRACalc v21081 8/10/2021 10:22:05 AM - Cancer Risk - Input File: C:\!HarpOutput\IRW03\Stu

INDEX	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS
1	9901	DieselExhPM	2.33E-05	3.19E-09	7YrCancerDerived_InhSoilDerm	*
2	9901	DieselExhPM	2.70E-05	3.70E-09	7YrCancerDerived_InhSoilDerm	*
3	9901	DieselExhPM	0.000101	1.38E-08	7YrCancerDerived_InhSoilDerm	*
4	9901	DieselExhPM	0.000151	2.07E-08	7YrCancerDerived_InhSoilDerm	*
		SUM		4.14E-08		

*HARP - HRACalc v21081 8/10/2021 10:22:05 AM - Chronic Risk - Input File: C:\!HarpOutput\IRW03\StudentHRAInput.hra

INDEX	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD
1	9901	DieselExhPM	2.33E-05	NonCancerChronicDerived_	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	9901	DieselExhPM	2.70E-05	NonCancerChronicDerived_	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	9901	DieselExhPM	0.000101	NonCancerChronicDerived_	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	9901	DieselExhPM	0.000151	NonCancerChronicDerived_	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
				SUM	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Appendix

Appendix C Cultural and Paleontological Resources Assessment Report

Appendix

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cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT FOR THE 4416 AZUSA CANYON ROAD PROJECT, CITY OF IRWINDALE, LOS ANGELES COUNTY, CALIFORNIA

Prepared for:
Dina El Chammas Gass, PE
PlaceWorks
3 MacArthur Place, Suite 1100
Santa Ana, California 92707

Authors:
Sandy Duarte, B.A., Kelly Vreeland, M.S., and Shannon Lopez, M.A.

Principal Investigators:
John Gust, Ph.D, RPA
Kim Scott, M.S.

July 2021

Cogstone Project Number: 5186
Type of Study: Cultural and Paleontological Resources Assessment
Archaeological Sites: none
USGS 7.5' Quadrangle: Baldwin Park (1981)
Area: 5.82 acres
Key Words: Gabrielino/Gabrieleño/Tongva Territory, Pepsi-Cola, Negative archaeological survey, Negative paleontological survey, Positive built environment survey

1518 West Taft Avenue
Orange, CA 92865
Office (714) 974-8300

Field Offices
San Diego • Riverside • Morro Bay • Sacramento • Arizona

cogstone.com
Toll free 888-333-3212

Federal Certifications WOSB, EDWOSB, SDB
State Certifications DBE, WBE, SBE, UDBE

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SUMMARY OF FINDINGS

This study was conducted to determine the potential impacts to cultural and paleontological resources during the 4416 Azusa Canyon Road Project (Project), City of Irwindale, Los Angeles County, California. This Project will comply with California Environmental Quality Act (CEQA) regulations. The City of Irwindale (City) is the lead CEQA Agency.

The Project is located at 4416 Azusa Canyon Road, Irwindale, Los Angeles County, California within Assessor's Parcel Number (APN) 8417-004-006. Specifically, the Project is located in Section 9 of Township 1 South, Range 10 West, San Bernardino Baseline and Meridian, on the Baldwin Park (1:24,000) USGS 7.5-minute topographic quadrangle map. The Project involves the demolition of an existing building constructed in 1956 in order to construct a new, approximately 129,830 square foot, stand-alone, speculative concrete tilt-up warehouse building with an office mezzanine. Sediment disturbance is expected to reach a maximum of 12 feet for grading and utilities.

CULTURAL RESOURCES

Cogstone principal investigator for archaeology John Gust requested a search of the California Historic Resources Information System (CHRIS) from the South Central Coastal Information Center (SCCIC) located on the campus of California State University, Fullerton that included the entire proposed Project Area as well as a one-half mile radius on April 9, 2021. SCCIC staff completed the request on May 13, 2021. Results of the record search indicate that five previous studies have been completed within one-half mile of the proposed Project Area, but none within the Project Area. The records search also determined one previously recorded resource is found within the search radius located 0.25 to 0.5 miles from the Project Area but none are located within the Project Area.

Cogstone requested a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC) on April 13, 2021. On April 27, 20121 the NAHC responded that the Project Area was negative for any known sacred sites or resources. The NAHC provided a list of seven tribes affiliated with the Project Area and recommended that they be consulted for information on sacred sites in the vicinity of the Project Area. Cogstone assisted the City with Assembly Bill 52 (AB 52) consultations by contacting each of the identified Tribes up to three times.

Based on pedestrian survey, the cultural records search results from the SCCIC, and the negative SLF search results the Project Area is assessed to have low sensitivity for prehistoric resources. Based on these data sources and the review of USGS topographic quadrangle maps and historic USDA aerial photographs, the Project Area is assessed to have low to moderate sensitivity for buried historic archaeological resources as the building type and related information is not known for the two buildings that are seen on the 1953 Baldwin Park USGS topographic quadrangle map but are no longer present in the 1956 USDA aerial photograph

One built environment resource, a Pepsi-Cola bottling plant constructed in the late 1950s, was identified, photographed, and fully documented on California Department of Park and Recreation (DPR) 523 series forms. Due to a lack of significance, this building is recommended not eligible for listing in the California Register of Historical Resources. Demolition and renovations of the existing structure does not require any mitigation due to lack of significance.

No further cultural resources work is necessary. Cogstone recommends for the proposed Project to proceed as planned. Should cultural resources be identified during construction the following mitigation measures are recommended.

CUL-1: If an inadvertent cultural material is discovered during ground-disturbing activities, all work must halt within 50 feet of the find until the qualified archaeologist can determine the significance. No soil shall be exported from within the 50-foot buffer around the find until a determination of significance is made. The qualified archaeologist will then also determine if continued archaeological monitoring is warranted.

If the qualified archaeologist determines that the find qualifies as a significant cultural resource, the archeologist shall make recommendations on the treatment and disposition of the deposits, which shall be developed in accordance with all applicable provisions of California Public Resource Code Section 21083.2 and State CEQA Guidelines Sections 15064.5 and 15126.4. For example, if significant cultural resources are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan. The archaeologist shall prepare a final report describing monitoring methods that includes a catalog of all ~~and curated~~ cultural resources identified during the Project for submission to the City. The City will determine disposition of collected cultural resources which may include return to landowner/applicant, transfer to a consulting Native American group, donation to school or museum, or long term curation at an approved curation facility. The applicant shall be financially responsible for costs associated with cultural resources monitoring, including artifact curation, up to the limits imposed by Public Resources Code Section 21083.2.

CUL-2: The City of Irwindale will notify The Gabrielino Tongva Indians of California Tribal Council (Tribe) if prehistoric materials, including Native American burial remains, are found. Any notification by the City of Irwindale to the Tribe of the discovery of burial remains will be separate from the Native American Heritage Commission (NAHC) process and will occur regardless of whether the NAHC designates the Tribe as Most Likely Descendent. If Native American burial remains are found the Tribe will engage the City of Irwindale in formal Native American consultation.

In accordance with California Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then can recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the health and safety code have been met.

PALEONTOLOGICAL RESOURCES

The Project Area is mapped entirely as late Pleistocene to Holocene young alluvial fan deposits, which were deposited from 129,000 years ago through into historic times. The paleontological record search revealed no fossil localities from within the Project Area or within a 5-mile radius. However, fossil localities are known from terrestrial deposits near the Project. Extinct late Pleistocene animal fossils of mammoth, Pacific mastodon, Harlan's ground sloth, sabre-toothed cat, California turkey, horse, camel, and bison have been recovered from within 15 miles of the study area.

The paleontological records search revealed that all of the fossils previously recovered within an 18-mile radius were a minimum of two feet deep in deposits mapped as Pleistocene at the surface. Sediments with a Holocene component such as those within the study area produced fossils starting at 24 feet deep near the Project Area. For this reason, sediments less than 20 feet below the modern surface within the boundaries of the Project are assigned a low potential for fossils (PFYC 2), while deeper deposits are assigned a moderate potential for fossils (PFYC 3) due to similar deposits producing fossils at that depth near to the study area.

Based upon the records of fossils derived from similar sediments near the Project, and given the proposed depth of cut, no paleontological monitoring is currently recommended for the mass excavations. Drilling or pile driving activities, regardless of depth, have a low potential to produce fossils meeting significance criteria because any fossils brought up by the auger during drilling will not have information about formation, depth or context.

In the unlikely event that fossils are found the following mitigation measures will apply:

PAL-1: If unanticipated fossil discoveries are made, all work must halt within 50 feet until a qualified paleontologist can evaluate the find. Work may resume immediately outside of the 50-foot radius. Mitigation Measures PAL-2 and PAL-3 shall be implemented.

PAL-2: If the discoveries are determined to be significant, full-time paleontological monitoring will be recommended for the remainder of ground disturbance for the project. Paleontological monitoring shall entail the visual inspection of excavated or graded areas and trench sidewalls. In the event that a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and collected. Monitoring efforts can be reduced or eliminated at the discretion of the project paleontologist.

PAL-3: Upon completion of fieldwork, all significant fossils collected shall be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation shall include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossil specimens shall be identified to the most specific taxonomic level possible, cataloged, analyzed, and delivered the Natural History Museum of Los Angeles County for permanent curation and storage. The cost of curation is assessed by the repository and shall be responsibility of the land owner. At the conclusion of laboratory work and museum curation, a final Paleontological Monitoring Report (PMR) shall be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project area geology and paleontology, a list of taxa recovered, an analysis of fossils recovered and their scientific significance, and recommendations. A copy of the report shall also be submitted to the Natural History Museum of Los Angeles County.

INTRODUCTION

PURPOSE OF STUDY

This study was conducted to determine the potential impacts to cultural and paleontological resources during the 4416 Azusa Canyon Road Project (Project), City of Irwindale, Los Angeles County, California (Figure 1). This Project will comply with California Environmental Quality Act (CEQA) regulations. The City of Irwindale (City) is the lead CEQA Agency.

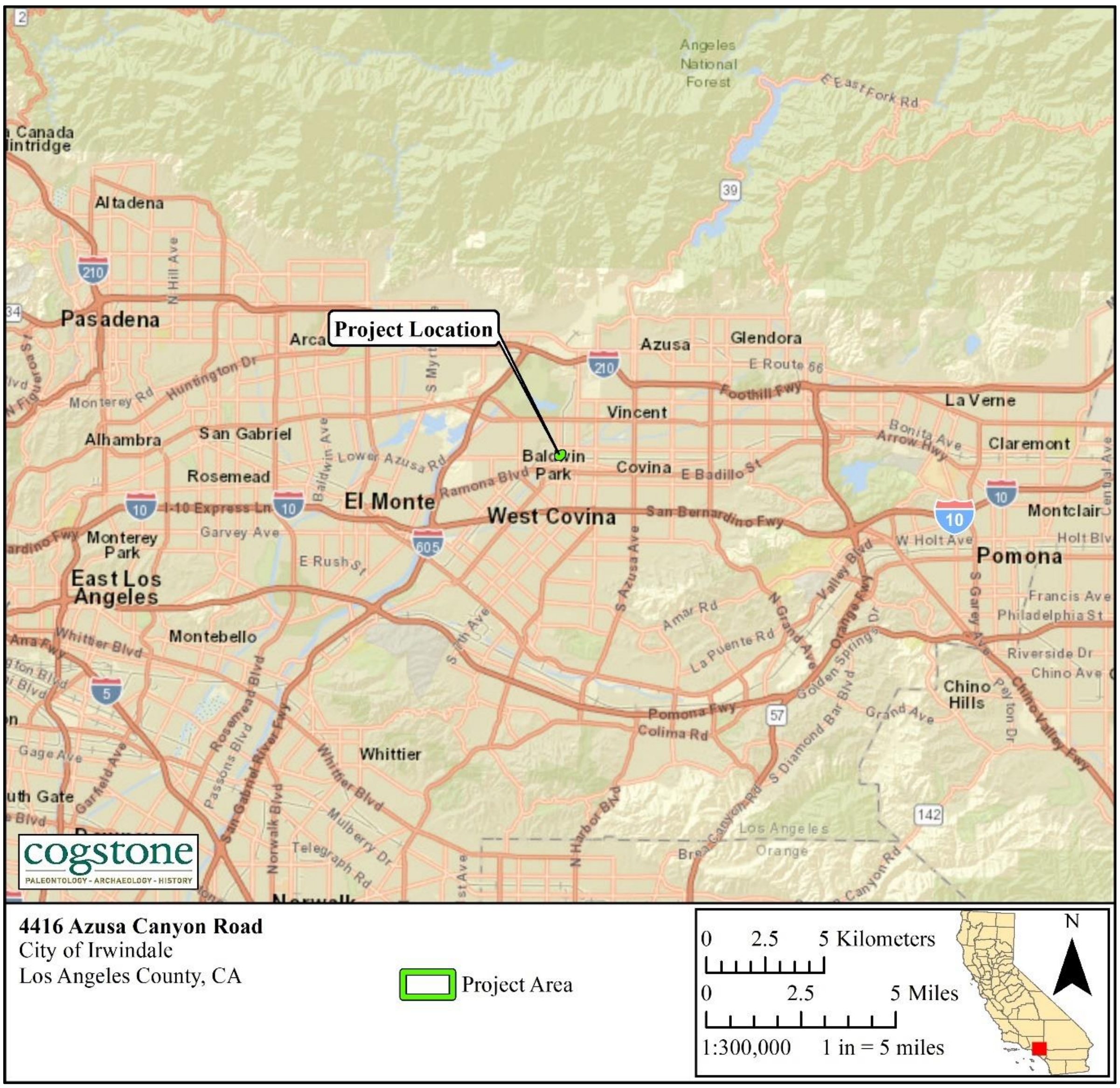

Figure 1. Project vicinity map

PROJECT LOCATION AND DESCRIPTION

The Project is located at 4416 Azusa Canyon Road, Irwindale, Los Angeles County, California within Assessor's Parcel Number (APN) 8417-004-006 (Figures 2, 3). Specifically, the Project is located in Section 9 of Township 1 South, Range 10 West, San Bernardino Baseline and Meridian, on the Baldwin Park (1:24,000) USGS 7.5-minute topographic quadrangle map. The Project involves the demolition of an existing building constructed in 1956 in order to construct a new, approximately 129,830 square foot, stand-alone, speculative concrete tilt-up warehouse building with an office mezzanine. Sediment disturbance is expected to reach a maximum of 12 feet for grading and utilities.

PROJECT PERSONNEL

Cogstone Resource Management, Inc. (Cogstone) carried out this assessment and drafted this report. Brief resumes of key Project personnel are in Appendix A.

- Desiree Martinez provided QA/QC. Ms. Martinez is a Registered Professional Archaeologist (RPA) and holds an M.A. in Anthropology from Harvard University and more than 24 years of experience in California archaeology.

- Eric Scott provided QA/QC of the paleontology and geology sections of this report. Mr. Scott has an M.A. in Anthropology, with an emphasis in biological paleoanthropology, from the University of California, Los Angeles (UCLA), and more than 37 years of experience in California paleontology.

- John Gust, RPA, served as the Task Manager and Principal Investigator for Archaeology for the Project, and reviewed this report. Dr. Gust has a Ph.D. in Anthropology from the University of California (UC), Riverside, and over 9 years of experience in archaeology.

- Kim Scott served as the Principal Investigator for Paleontology for the Project and reviewed the geological and paleontological portions of this report. Ms. Scott has an M.S. in Biology with paleontology emphasis from California State University (CSU), San Bernardino and over 25 years of experience in California paleontology and geology.

- Sandy Duarte co-authored this report. Mrs. Duarte holds a B.A. in Anthropology from UC Santa Barbara, and has more than 18 years of experience in California archaeology.

- Kelly Vreeland co-authored this report. Ms. Vreeland has an M.S. in Geology, with an emphasis in paleontology, from CSU Fullerton, as well as 10 years of experience in California paleontology and geology.

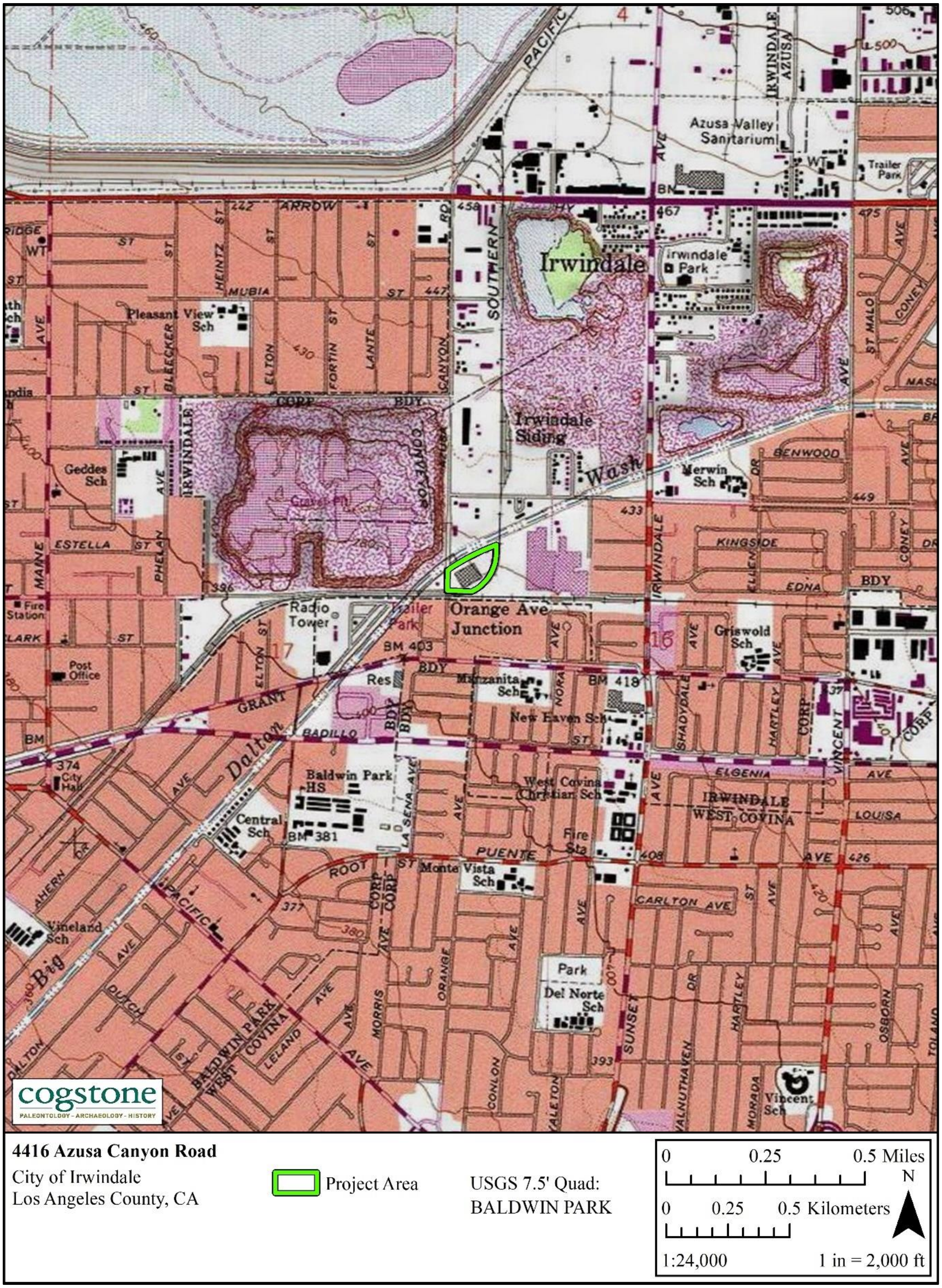

Figure 2. Project location

Figure 3. Aerial map

- Shannon Lopez conducted historic society consultation, built environment evaluation, and co-authored this report. Ms. Lopez holds an M.A. from CSU Fullerton and has more than three years of experience as an architectural historian.

- Cassidy Sharp conducted the intensive archaeological and paleontological pedestrian survey. Ms. Sharp holds an M.S. in Archaeological Science from Durham University, U.K. and has more than five years of experience in archaeology and paleontology.

- Logan Freeberg prepared the Geographic Information System (GIS) maps throughout this report. Mr. Freeberg has a B.A. in Anthropology from UC Santa Barbara, a GIS certification from CSU Fullerton, and over 18 years of experience in California archaeology.

REGULATORY ENVIRONMENT

STATE LAWS AND REGULATIONS

California Environmental Quality Act

CEQA states that: It is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required are intended to assist public agencies in systematically identifying both the significant effects of proposed project and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

CEQA declares that it is state policy to: “take all action necessary to provide the people of this state with...historic environmental qualities.” It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered.

Tribal Cultural Resources

As of 2015, CEQA established that “[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code, § 21084.2). In order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

To help determine whether a project may have such an effect, the lead agency must consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code §20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

PUBLIC RESOURCES CODE

<u>Section 5097.5:</u> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands (lands under state, county, city, district or public authority jurisdiction, or the jurisdiction of a public corporation), except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The California Register of Historical Resources (CRHR) is a listing of all properties considered to be significant historical resources in the state. The California Register includes all properties listed or determined eligible for listing on the National Register, including properties evaluated under Section 106, and State Historical Landmarks No. 770 and above. The California Register statute specifically provides that historical resources listed, determined eligible for listing on the California Register by the State Historical Resources Commission, or resources that meet the California Register criteria are resources which must be given consideration under CEQA (see above). Other resources, such as resources listed on local registers of historic resources or in local surveys, may be listed if they are determined by the State Historic Resources Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the California Register is not automatic.

Resources eligible for listing include buildings, sites, structures, objects, or historic districts that retain historical integrity and are historically significant at the local, state or national level under one or more of the following four criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2) It is associated with the lives of persons important to local, California, or national history;
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance.

Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

Native American Human Remains

Sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with state law (i.e., Health and Safety Code §7050.5 and Public Resources Code §5097.98), as reviewed below:

In the event that human remains are encountered during project development and in accordance with the Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

CALIFORNIA ADMINISTRATIVE CODE, TITLE 14, SECTION 4307

This section states that "No person shall remove, injure, deface or destroy any object of paleontological, archeological or historical interest or value."

DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004).

CITY OF IRWINDALE GENERAL PLAN RESOURCE MANAGEMENT ELEMENT

ISSUE AREA – RESOURCE PRESERVATION

The City of Irwindale will maintain and preserve those natural and man-made amenities that contribute to the City's livability.

Resource Management Element Policy 8. The City will identify and preserve those sites/buildings that are important to the community for the benefit of the future generations that will reside or work in the City.

Resource Management Element Policy 9. The City will continue to cooperate with the other agencies that are charged with improving air and water quality in the region.

Resource Management Element Policy 10. The City of Irwindale will continue to cooperate with surrounding cities in the formulation and implementation of regional resource management plans and programs.

Resource Management Element Policy 11. The City of Irwindale supports the ethic of conservation of non-renewable resources. This includes efforts to reduce the use of energy (in any form), greenhouse gas (GHG) emissions (consistent with AB 32) and efforts to find new and more energy efficient methods for delivering services. The City supports the development of building standards that enable the community to design energy saving features such as solar energy systems, water efficient landscaping, and sustainable, green, and energy efficient building standards.

BACKGROUND

GEOLOGICAL SETTING

The Project lies within the Los Angeles Basin, a sedimentary basin which includes the coastal plains of Los Angeles and Orange counties and extends west to Catalina Island, California. This region is bounded by the Santa Ana Mountains to the east, the Santa Monica Mountains to the north, and the San Joaquin Hills to the south. The marine Los Angeles Basin began to develop in the early Miocene Epoch, about 23 million years ago. Through time the basin transitioned to terrestrial sedimentary deposition by the middle Pleistocene, about 1 million years ago.

The area is part of the coastal section of the northernmost Peninsular Range Geomorphic Province and is characterized by elongated northwest-trending mountain ridges separated by sediment-floored valleys. Subparallel faults branching off from the San Andreas Fault to the east create the local mountains and hills. The Peninsular Ranges Geomorphic Province is located in the southwestern corner of California and is bounded by the Transverse Ranges Geomorphic Province to the north and the Colorado Desert Geomorphic Province to the east (Wagner 2002).

STRATIGRAPHY

Geologic mapping indicates that the Project is underlain by late Pleistocene to Holocene young alluvial fans deposits (unit 3), which were deposited between 129,000 years ago and historic times (Campbell et al. 2014). Although not mapped, the Project Area contains various amounts of artificial fill that was laid down during previous development, which was noted during the pedestrian field survey.

YOUNG ALLUVIAL FAN DEPOSITS, UNIT 3

Alluvial fan deposits are laid down along the outer slopes of our valleys from local mountains via the mouths of canyons, mainly from flooding streams and debris flows. Sediments consist primarily of unconsolidated silt, sand, and gravel deposits (Campbell et al. 2014). Clasts coarsen upstream with boulders up to several meters across being deposited near the mountains during flash floods.

ARTIFICIAL FILL

Artificial fill (modern) is frequently not depicted on geologic maps due to its ubiquitous nature; it is usually only shown when its extent is considerable. Although such fill is typically less than a few feet thick, it can be substantially thicker in the areas of overpasses, freeways, and other large earthworks. Any fossils that may be encountered therein are not scientifically significant.

PALEONTOLOGICAL SETTING

During the Pleistocene Epoch (~2.6 million – ~11, 000 years ago), as the ocean continued to recede (and/or the land to rise), coastal California changed from shallow marine to terrestrial. The developing terrestrial landscape had a climate that was moister than at present, with free flowing streams and relatively abundant standing water. Numerous freshwater sources provided various opportunities for fossilization, providing a fairly complete view of Pleistocene life. An increase in freshwater also allowed vegetation to flourish, which would have resembled the flora found today near Monterey, California. Pleistocene megafauna present in the region included ground sloth, mammoth, mastodon, horse, camel, bison, pronghorn, peccary, wolf, and saber-toothed cat. Small animals were also abundant and included most of the species found in the same areas today.

PREHISTORIC SETTING

Approaches to prehistoric frameworks have changed over the past half century from being based on material attributes to radiocarbon chronologies to association with cultural traditions. Archaeologists defined a material complex consisting of an abundance of milling stones (for the grinding of food items) with few projectile points or vertebrate faunal remains dating from about 7000BP to 3000BP as the “Millingstone Horizon” (Wallace 1955; Warren 1968). Later, the “Millingstone Horizon” was redefined as a cultural tradition named the Encinitas Tradition (Warren 1968), with various regional expressions including those of Topanga and La Jolla. Use by archaeologists varied as some adopted a generalized Encinitas Tradition without regional variations, some continued to use “Millingstone Horizon” and some used Middle Holocene (the time period) to indicate this observed pattern (Sutton and Gardner 2010:1-2).

The Encinitas Tradition characteristics are abundant metates and manos, crudely made core and flake tools, bone tools, shell ornaments, very few projectile points with subsistence focusing on collecting (plants, shellfish, etc.) (Sutton and Gardner 2010:7). Faunal remains vary by location but include shellfish, land animals, marine mammals, and fish.

The Encinitas Tradition is currently redefined as comprising four geographical patterns (Sutton and Gardner 2010: 8-25). These are (1) Topanga in coastal Los Angeles and Orange counties; (2) La Jolla in coastal San Diego County; (3) Greven Knoll in inland San Bernardino, Riverside, Orange, and Los Angeles counties; and (4) Pauma in inland San Diego County.

About 3500BP, the Encinitas Tradition was replaced in the greater Los Angeles Basin by the Del Rey Tradition (Sutton 2010). This tradition has been generally assigned to the Intermediate and Late Prehistoric periods. The changes that initiated the beginning of the Intermediate Period include new settlement patterns, economic foci, and artifact types that coincided with the arrival of a biologically distinctive population. The Intermediate and Late Prehistoric periods have not been well-defined. Many archaeologists have proposed, however, that the beginning of the Intermediate marked the arrival of Takic-speaking groups (from the Mojave Desert, southern Sierra Nevada, and San Joaquin Valley) and that the Late Prehistoric Period reflected Shoshonean groups (from the Great Basin). Related cultural and biological changes occurred on the southern Channel Islands about 300 years later.

As defined by Sutton (2010), the Del Rey Tradition replaces usage of the Intermediate and Late Prehistoric designations for both the southern California mainland and the southern Channel Islands. Within the Del Rey Tradition are two regional patterns named Angeles and Island. The Del Rey Tradition represents the arrival, divergence, and development of the Gabrielino in southern California.

PREHISTORIC CHRONOLOGY

The latest cultural revisions for the Project Area define traits for time phases of the Topanga pattern of the Encinitas Tradition applicable to coastal Los Angeles and Orange counties (Sutton and Gardner 2010; Table 1). This pattern is replaced in the APE by the Angeles pattern of the Del Rey Tradition later in time (Sutton 2010).

Table 1. Cultural Patterns and Phases

Phase	Dates BP	Material Culture	Other Traits
Topanga I	8,500 to 5,000	Abundant manos and metates, many core tools and scrapers, few but large points, charmstones, cogged stones, early discoidals, faunal remains rare	Shellfish and hunting important, secondary burials under metate cairns (some with long bones only), some extended inhumations, no cremations
Topanga II	5,000 to 3,500	Abundant but decreasing manos and metates, adoption of mortars and pestles, smaller points, cogged stones, late discoidals, fewer scraper planes and core tools, some stone balls and charmstones	Shellfish important, addition of acorns, reburial of long bones only, addition of flexed inhumations (some beneath metate cairns), cremations rare
Topanga III	3,500 to 1,000	Abundant but decreasing manos and metates, increasing use of mortars and pestles, wider variety of small projectile points, stone-lined ovens	Hunting and gathering important, flexed inhumations (some under rock cairns), cremations rare, possible subsistence focus on yucca/agave
Angeles IV	1,000 to 800	Cottonwood arrow points for arrows appear, *Olivella* cupped beads and *Mytilus* shell disks appear, some imported pottery appears, possible appearance of ceramic pipes	Changes in settlement pattern to fewer but larger permanent villages, flexed primary inhumations, cremations uncommon
Angeles V	800 to 450	Artifact abundance and size increases, steatite trade from islands increases, larger and more elaborate effigies	Development of mainland dialect of Gabrielino, settlement in open grasslands, exploitation of marine resources declined and use of small seeds increased, flexed primary inhumations, cremations uncommon
Angeles VI	450 to 150	Addition of locally made pottery, metal needle-drilled *Olivella* beads, addition of Euro-American material culture (glass beads and metal tools)	Use of domesticated animals, flexed primary inhumations continue, some cremations

Topanga Pattern groups were relatively small and highly mobile. Sites known are temporary campsites, not villages, and tend to be along the coast in wetlands, bays, coastal plains, near-coastal valleys, marine terraces and mountains. The Topanga toolkit is dominated by manos and metates with projectile points scarce (Sutton and Gardner 2010:9).

In Topanga Phase I, other typical characteristics were a few mortars and pestles, abundant core tools (scraper planes, choppers and hammerstones), relatively few large, leaf-shaped projectile points, cogged stones, and early discoidals. Secondary inhumation under cairns was the common mortuary practice. In Orange County as many as 600 flexed burials were present at one site and dated 6435 radiocarbon years before present (Sutton and Gardner 2010:9, 13).

In Topanga Phase II, flexed burials and secondary burial under cairns continued. Adoption of the mortar and pestle is a marker of this phase. Other typical artifacts include manos, metates, scrapers, core tools, discoidals, charmstones, cogged stones and an increase in the number of projectile points. In Orange County, stabilization of sea level during this time period resulted in increased use of estuary, near shore, and local terrestrial food sources (Sutton and Gardner 2010:14-16).

In Topanga Phase III, there was continuing abundance of metates, manos, and core tools plus increasing amounts of mortars and pestles. More numerous and varied types of projectile points are observed along with the introduction of stone-lined earthen ovens. Cooking features such as these were possibly used to bake yucca or agave. Both flexed and extended burials are known (Sutton and Gardner 2010:17).

The Angeles pattern generally is restricted to the mainland and appears to have been less technologically conservative and more ecologically diverse, with a largely terrestrial focus and greater emphases on hunting and nearshore fishing (Sutton 2010).

The Angeles IV phase is marked by new material items including Cottonwood points for arrows, Olivella cupped beads and Mytilus shell disks, birdstones (zoomorphic effigies with magico-religious properties) and trade items from the Southwest including pottery. The presence and utility of steatite vessels may have impeded the diffusion of pottery into the Los Angeles Basin. The settlement pattern altered to one of fewer and larger permanent villages. Smaller special-purpose sites continued to be used (Sutton 2010).

Angeles V components contain more and larger steatite artifacts, including larger vessels, more elaborate effigies, and comals. Settlement locations shifted from woodland to open grasslands. The exploitation of marine resources seems to have declined and the use of small seeds increased. Many Gabrielino inhumations contained grave goods while cremations did not (Sutton 2010).

The Angeles VI phase reflects the ethnographic mainland Gabrielino of the post-contact period (i.e., after A.D. 1542) (Sutton 2010). One of the first changes in Gabrielino culture after contact was undoubtedly population loss due to disease, coupled with resulting social and political disruption. Angeles VI material culture is essentially Angeles V augmented by a number of Euroamerican tools and materials, including glass beads and metal tools such as knives and needles (used in bead manufacture). The frequency of Euroamerican material culture increased through time until it constituted the vast majority of materials used. Locally produced brownware pottery appears along with metal needle-drilled Olivella disk beads.

The ethnographic mainland Gabrielino subsistence system was based primarily on terrestrial hunting and gathering, although nearshore fish and shellfish played important roles. Sea mammals, especially whales (likely from beached carcasses), were prized. In addition, a number of European plant and animal domesticates were obtained and exploited. Ethnographically, the mainland Gabrielino practiced interment and some cremation. \

ETHNOGRAPHY

The Gabrielino speak a language that is part of the Takic language family. Their territory encompassed a vast area stretching from Topanga Canyon in the northwest, to the base of Mount Wilson in the north, to San Bernardino in the east, Aliso Creek in the southeast and the Southern Channel Islands, in all an area of more than 2,500 square miles (Bean and Smith 1978; McCawley 1996; Figure 4). At European contact, the tribe consisted of more than 5,000 people living in various settlements throughout the area. Some of the villages could be quite large, housing up to 150 people.

The Gabrielino are considered to have been one of the wealthiest tribes and to have greatly influenced tribes they traded with (Kroeber 1976:621). Houses were domed, circular structures thatched with tule or similar materials (Bean and Smith 1978:542). The best-known artifacts were made of steatite and were highly prized. Many common everyday items were decorated with inlaid shell or carvings reflecting an elaborately developed artisanship (Bean and Smith 1978:542).

The main food zones utilized were marine, woodland, and grassland (Bean and Smith 1978). Plant foods were, by far, the greatest part of the traditional diet at contact. Acorns were the most important single food source. Villages were located near water sources necessary for the leaching of acorns, which was a daily occurrence. Grass seeds were the next most abundant plant food used along with chia. Seeds were parched, ground, and cooked as mush in various combinations according to taste and availability. Greens and fruits were eaten raw or cooked or sometimes dried for storage. Bulbs, roots, and tubers were dug in the spring and summer and usually eaten fresh. Mushrooms and tree fungus were prized as delicacies. Various teas were made from flowers, fruits, stems, and roots for medicinal cures as well as beverages (Bean and Smith 1978:538-540).

The principal game animals were deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, quail, dove, ducks, and other birds. Most predators were avoided as food, as were tree squirrels and most reptiles. Trout and other fish were caught in the streams, while salmon were available when they ran in the larger creeks. Marine foods were extensively utilized. Sea mammals, fish, and crustaceans were hunted and gathered from both the shoreline and the open ocean, using reed and dugout canoes. Shellfish were the most common resource, including abalone, turbans, mussels, clams, scallops, bubble shells, and others (Bean and Smith 1978:538-540).

The nearest recorded Tongva village, *Pasbenga* (near present day Santa Ana), is located approximately 4.45 miles east of the center of the Project.

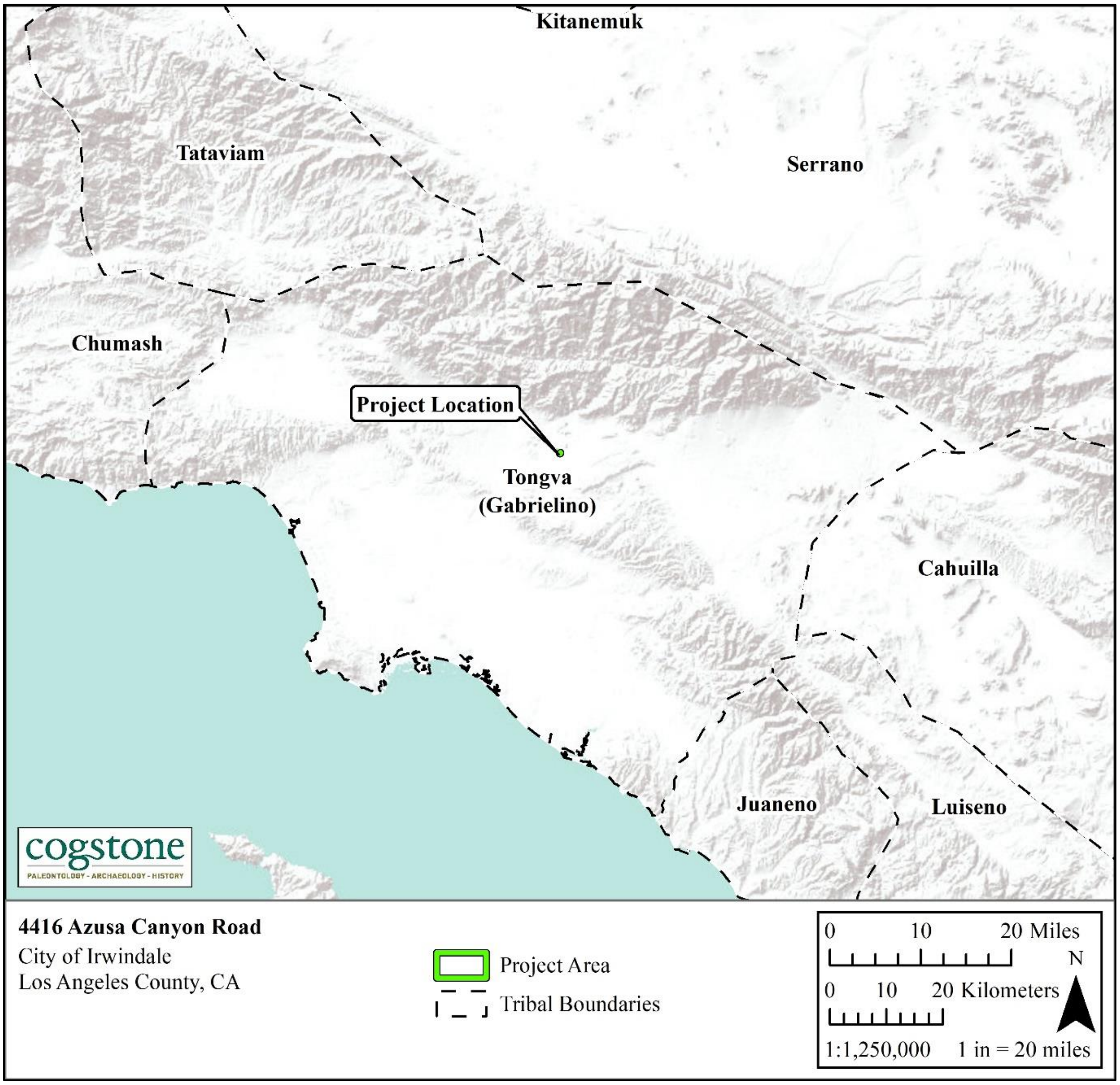

Figure 4. Tribal boundaries map

HISTORIC SETTING

IRWINDALE

The area which would become the City of Irwindale was first settled during the 1860s by members of two families – the Ayons and the Fraijos – that both were originally from Sonora, Mexico that both lived in San Juan Capistrano and then Anaheim. Gregorio Fraijo obtained 80 acres of land near the Irwindale Center. Fraijo soon sold half this holding to his friend Fecundo Ayon. Gregorio Fraijo grew corn, beans, and chiles on his land and the Fraijo and Ayon families grew even closer by marriage. The settlement attracted new arrivals many of whom made their living tending cattle and sheep (City of Irwindale 2008).

Water was obtained from deep wells and an excavated trench. Homes were built from the river rock in the San Gabriel floodplain and several men became master stonemasons and built beautiful buildings, fences, and waterways. A Mr. Irwin (first name unknown) established a successful citrus farm in the Cypress Street-Vincent Avenue area (City of Irwindale 2008).

While Gregorio Fraijo and Mr. Irwin made their fortunes off of agriculture, the majority of the land was and remains unsuitable for farming. However, with the rise of car culture in the United States the demand for crushed rock for improved roads proved an economic opportunity for the community (City of Irwindale n.d.; 2008). In 1909, the first quarry opened north of Foothill Boulevard and the minerals it produced earned Irwindale the designation "Significant Mineral Resource Zone." It is estimated that most of California's roads, highways, and byways consist of some percentage of Irwindale rock (Irwindale Community Redevelopment Agency 2009). On August 6, 1957, the City of Irwindale incorporated as the 56th city in Los Angeles County. The origin of "Irwindale" is in dispute. Some say it comes from Mr. Irwin, others say its origins lie in name of California's thirteenth governor, William Irwin, who had a post office named in his honor in the area in 1895 (Peterson 2016)

The City of Irwindale consists of 9.5 square miles. Less than one percent of the City is zoned for residential use which results in a small residential population of less than 1,500 (United States Census Bureau 2010-2019). Irwindale is experiencing a gradual shift from its traditional mining-oriented economy towards manufacturing.

THE PEPSI BOTTLING GROUP INC.

The first Pepsi-Cola drink was created by pharmacist Caleb D. Bradham (1866-1934) in New Bern, North Carolina. As a result of the drink's popularity, Bradham incorporated the Pepsi-Cola Company in 1902 (Britannica 2021). In 1905, the Pepsi-Cola Company began offering the rights to bottle Pepsi-Cola, with the first bottlers originating in Durham and Charlotte, North Carolina, and Charlottesville, Virginia. With the onset of World War II, rationing laws made it difficult for the Pepsi-Cola Company to obtain sugar for production of their product (however, rationing laws made certain exceptions towards their competitor, the Coca-Cola Company). There was a spirit of comradery amongst the Pepsi-Cola bottling owners. When the bottling plant in Sedalia, Missouri (owned by Julian Bagby) burned to the ground, other bottlers came to his aid by loaning him trucks and producing product for him until he could rebuild (Pepsi-Cola Bottlers Association 2021).

In the late 1940s and early 1950s, the Pepsi-Cola Company began experimenting with canning; however, canned Pepsi-Cola would not become accepted amongst customers until the 1960s. During the 1950s, Pepsi-Cola's key competitor was Coca-Cola. As part of Pepsi's advertisement strategy for the decade, Pepsi would seek to brand itself as a beverage for modern, classy, and upscale customers. Pepsi would also advertise its product as a "Light Refreshment" for women who wanted to keep a slim figure (Austin 2013).

In 1969, the Federal Trade Commission (FTC) began investigating the soft drink franchise system and determined that they were anti-competitive. Following the ruling, for nearly 11 years, the Pepsi-Cola bottlers lobbied Congress against the FTC. In 1980, President Jimmy Carter signed the Soft Drink Interbrand Competition Act into law which clarified “the circumstances under which territorial provisions in licenses to manufacture, distribute, and sell trademarked soft drink products are lawful under the antitrust laws,” thus protecting the franchise system (Pepsi-Cola Bottlers Association 2021).

In 1999, the Pepsi Bottling Group was founded as the world’s largest bottler of Pepsi-Cola beverages with an exclusive right to manufacture, sell, and distribute Pepsi-Cola beverages in the United States and various international countries (Bloomberg 2021). On August 4, 2009, PepsiCo purchased the Pepsi-Bottling Group along with another large bottler, PepsiAmerica; both are now subsidiaries of PepsiCo, called the Pepsi Beverage Company (PBC) (Pepsi-Cola Bottlers Association 2021).

PEPSI-COLA BOTTLERS OF CALIFORNIA IN THE 1950S

In April of 1958, a list of Pepsi-Cola Bottlers of California was published (Newspapers 1958). At the time of the article’s publication, a total of 22 Pepsi-Cola Bottling plants (including the plant at 4416 Azusa Canyon Road) were operating throughout the State of California. At present, a total of six of these locations remain, five of which operate under the company name “Pepsi Bottling Group”:

- (Original name) Pepsi-Cola Bottling Co. of Bakersfield, CA. (Remains in operation)
- (Original name) Pepsi-Cola Bottling Co. of Brawley, CA. (Remains in operation)
- (Original name) Pepsi-Cola Bottling Co. of Mt. Shasta, CA. (Remains in operation)
- (Original name) Pepsi-Cola Bottling Co. of Salinas, CA. (Remains in operation)
- (Original name) Pepsi-Cola Bottling Co. of Yuba City, CA. (Remains in operation)
- (Original name) Pepsi-Cola Bottling Plant of Irwindale, CA. (Facility is now vacant)

Of the six remaining plants from the 1950s-era, the relatively small plant located at Mt. Shasta exhibits the lowest degree of alterations/additions to the building’s exterior. The remaining plants have undergone moderate to extensive alterations/additions which, in certain cases, have dramatically changed the building’s footprint and massing. By comparison, the 4416 Azusa Canyon Road plant is the second least altered facility, with the most notable alterations consisting of the building additions at the northwest and northeast elevations.

PROJECT AREA HISTORY

The Project Area was not part of a Mexican land grant but is located less than 0.25 miles north of Rancho La Puente (Figure 5). The earliest USGS topographic quadrangle map of the Project Area is from 1894 (Pomona; 1:62,500) which depicts a road crossing southwest/northeast through the Project Area. This 1894 map also shows a section of the Southern Pacific Railroad running east/west slightly south of the southern boundary of the Project Area. The road crossing the Project Area is no longer visible in the 1927 Puente (1:24,000) USGS topographic quadrangle map. This 1927 map shows Dalton Wash adjacent to the northern boundary of the Project Area and a single building in northwest portion of the Project Area.

The 1953 Baldwin Park (1:24,000) USGS topographic quadrangle map shows a second building in the northwest portion of the Project Area and a branch of the Pacific Electric Railroad running adjacent to the east and southern boundary of the Project Area. The current building at 4416 Azusa Canyon Road is seen in the 1956 USDA aerial photograph but all other buildings in the Project Area have been removed (Frame Finder 1956). The current building's original footprint was rectangular. Exterior additions to the building occurred in ca. 1977 with the smaller rectangular addition at the northwest elevation (NETROnline 1977). The larger rectangular addition at the northeast elevation was added sometime between when the 1980 and 1994 USDA aerial photographs were taken (NETROnline 1980, 1994). No notable changes are visible in USDA aerial photographs after 1994. John Reed received a patent to land within the Project Area in 1878. No additional information about him was found.

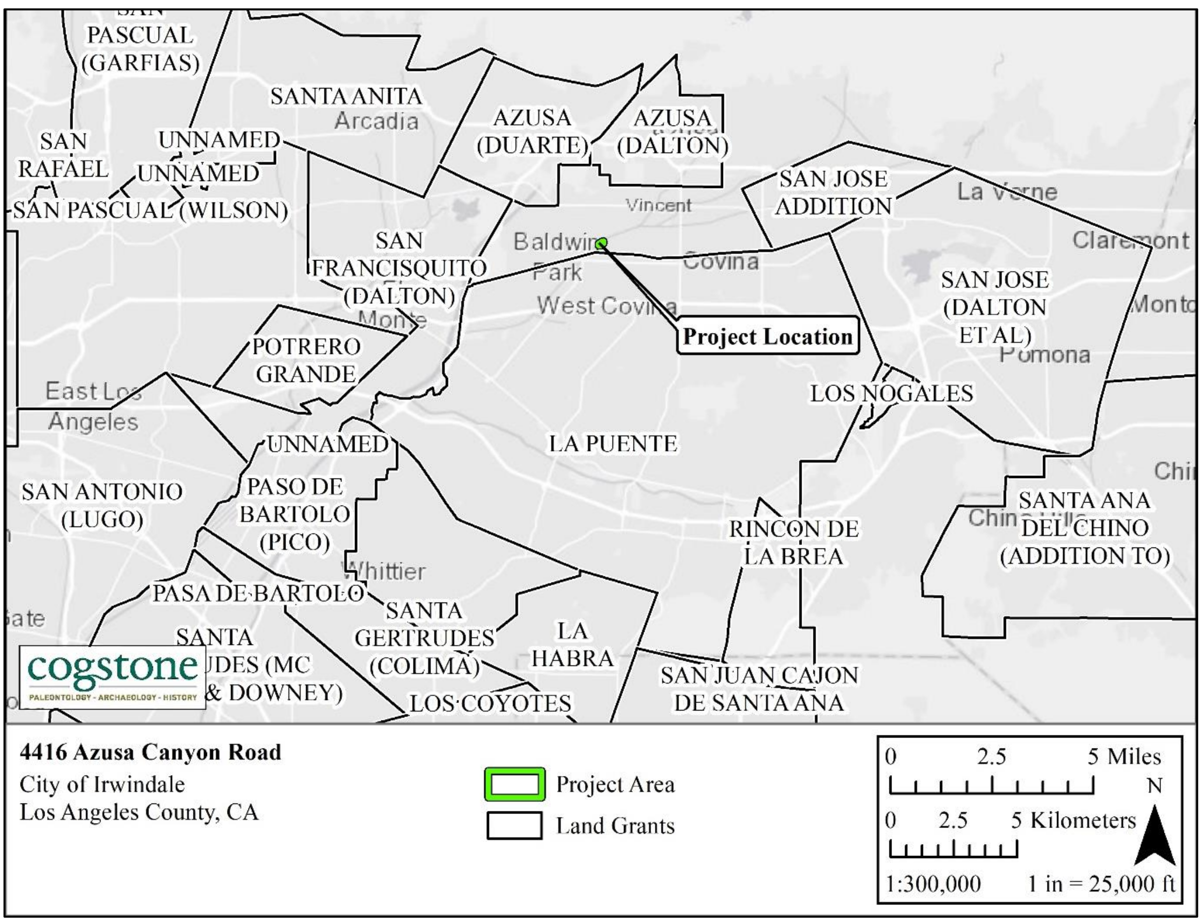

Figure 5. Land grant map

RECORDS SEARCHES

PALEONTOLOGICAL RECORD SEARCH

A record search of the Project Area was obtained from the Natural History Museum of Los Angeles County (NHMLAC; Bell 2021; Appendix B). Additional records from the University of California Museum of Paleontology database (UCMP 2021), the PaleoBiology Database (PBDB 2021), published literature (Jefferson 1991a, 1991b), and in previous record searches from the NHMLAC, were also consulted.

No recorded paleontological localities producing vertebrate fossils were found within the Project Area or within a one-mile radius of the Project Area. However, the NHMLAC does record localities near to the Project Area from the same or similar sedimentary deposits (Table 2). The closest locality the museum has recorded is approximately 12 miles southeast of the Project, which produced a fossil of extinct horse (*Equus* sp.) at two feet below the surface. The most notable vertebrate fossil localities for which the museum retains records are recorded from between 15 and 16 miles west and southwest of the Project Area from Lincoln Park and Montecito Heights. Extinct animals from these sites include Harlan's ground sloth (†[1]*Paramylodon harlani*), saber-toothed cat (†*Smilodon fatalis*), Pacific mastodon (†*Mammut pacificus* [was *M. americanum*; see Dooley et al. 2019]), mammoth (†*Mammuthus* sp.), horse (†*Equus* sp.), camel (†*Camelops* sp.), and California turkey (†*Meleagris californica*).

Table 2. Known Pleistocene Fossils in the Vicinity of the Project Area
Extinct animals are noted by † although all fossils from deposits older than Pleistocene are likely from extinct species.

Common Name	Taxon	Depth below original surface	Formation at surface	Locality	Location	Reference
horse	†*Equus sp.*	2 feet	La Habra Formation (Pleistocene)	LACM 3347	11204 Bluefield; Whittier; ~12 miles southeast of current project	Bell 2021
horse	†*Equus* sp.	15 – 20 feet	Pleistocene (Qo)	LACM 1728	In English Canyon southwest of the City of Chino, Chino Hills, ~13 miles southeast of current project	Bell 2021
camel	†*Camelops* sp.					

[1] †- indicates that the species is extinct

Common Name	Taxon	Depth below original surface	Formation at surface	Locality	Location	Reference
horse	†*Equus* sp.	unknown	Holocene or late Pleistocene alluvium	LACM VP 3363	West of Monterey Pass Road in Coyote Pass; east of the Long Beach Freeway and south of the north boundary of Section 32; East Los Angeles; 13 miles southwest of current project	Bell 2021
three-spine stickleback	*Gasterosteus aculeatus*	11 to 34 feet	young alluvium (Qya2)	LACM 7701, 7702	Bell Gardens: near the intersection of Atlantic Ave. and I-710 north of the Los Angeles River; ~15 miles southwest of current project	Bell 2021
salamander	*Batrachoseps* sp.					
lizard	Lacertilia					
constrictor snake	Colubridae					
rabbit	*Sylvilagus* sp.					
pocket mouse	*Microtus* sp.					
harvest mouse	*Reithrodontomys* sp.					
pocket gopher	*Thomomys* sp.					
western pond turtle	*Actinemys marmorata*	20-35 feet	Pleistocene older alluvial fan (Qof4)	LACM 2032	Near the intersection of Mission Rd. or Daly St., Lincoln Park; ~15 miles west of current project	Jefferson 1991a, 1991b; McLeod 2017
Harlan's ground sloth	†*Paramylodon harlani*					
Pacific mastodon	† *Mammut pacificus* [was *M. americanum*; see Dooley et al. 2019]					
mammoth	†*Mammuthus* sp.					
horse	†*Equus* sp.					
camel	†*Camelops* sp.					
ground sloth	*†Nothrotheriops sp.*	unknown	Pleistocene (Qo)	LACM 7508	In the uppermost reaches of Soquel Canyon, Chino Hills, ~16 miles southeast of current project	Bell 2021
horse	*†Equus scotti*					
California turkey	†*Meleagris californica*	unknown	Pleistocene older alluvial fan (Qof4)	LACM 1023	Near the intersection of Workman St. or Alhambra Ave., Montecito Heights; ~16 miles southwest of current project	Jefferson 1991a, 1991b; Bell 2021
sabertoothed cat	†*Smilodon fatalis*					
horse	†*Equus sp.*					
deer	*Odocoileus* sp.					
horse	†*Equus sp.*	43 feet	Pleistocene younger alluvial fan (Qyf2)	LACM 1755	Near the intersection of Hill St. or 12th St., Los Angeles (Fashion District); 18 miles southwest of current project	McLeod 2018

CALIFORNIA HISTORIC RESOURCES INFORMATION SYSTEM

Cogstone principal investigator for archaeology John Gust requested a search of the California Historic Resources Information System (CHRIS) from the South Central Coastal Information Center (SCCIC) located on the campus of California State University, Fullerton that included the entire proposed Project Area as well as a one-half mile radius on April 9, 2021. SCCIC staff completed the request on May 13, 2021. Results of the record search indicate that five previous studies have been completed within one-half mile of the proposed Project Area, but none within the Project Area (Table 3).

Table 3. Previous Cultural Resource Studies

Report No. (LA-)	Author(s)	Title	Year	Distance (miles) from Project Area
02782	Scott, Matthew A.	A Cultural Resource Assessment of the Three Potential Treatment Plant Sites in the Cities of Irwindale, Baldwin Park, and West Covina, Los Angeles County, California	1992	0-0.25
03824	Anonymous	Cultural Resources Report for the Baldwin Park Operable Unit Water Delivery Plan	1995	0-0.25
07237	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Sprint Facility Candidate La70xc601b (M. J. Roofing), 1122 North Azusa Canyon Road, West Covina, Los Angeles County, California	2005	0-0.25
10641	Tang, Bai "Tom"	Preliminary Historical/Archaeological Resources Study, San Bernardino Line Positive Train Control Project, Southern California Regional Rail Authority, Counties of Los Angeles and San Bernardino	2010	0-0.25
11471	Eggemeyer, Emilie	Verizon Wireless-Carvette, 2223 Ramona Boulevard, West Covina, California 91790	2011	0.25-0.5

The records search also determined one previously recorded resource is found within the search radius located 0.25 to 0.5 miles from the Project Area but none are located within the Project boundaries.

The Mojave Road (P-19-187085) is a multi-component resource which started as a Native American trail and was later modified for use by the United States Army and others during the historic period. It is California Historic Landmark (CHL) 963 and is listed in the California Register of Historical Resources but has not been evaluated for eligibility for listing in the National Register of Historic Places.

OTHER SOURCES

In addition to the SCCIC records search, a variety of sources were consulted in April 2021 to obtain information regarding the cultural context of the Project Area (Table 4). Sources included the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), California Built Environment Resources Directory (BERD), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). Specific information about the Project Area, obtained from historic-era maps and aerial photographs, is presented in the Project Area History section.

Table 4. Additional Sources Consulted

Source	Results
National Register of Historic Places (NRHP)	Negative
Historic USGS Topographic Maps	See Project Area History section
Historic US Department of Agriculture Aerial Photographs	See Project Area History section
California Register of Historical Resources (CRHR)	Negative
California Built Environment Resources Directory (BERD)	Negative
California Historical Landmarks (CHL)	Negative
California Points of Historical Interest (CPHI)	Negative
Caltrans Historic Bridge Inventory	Negative

<table>
<tr><th>Source</th><th>Results</th></tr>
<tr><td>Historic Societies and Agencies</td><td>Multiple attempts were made to contact the Covina Valley Historical Society, Historical Society of Pomona Valley, Los Angeles Conservancy, and the Pepsi-Cola Bottlers Association with requests for information regarding the Project. A response was received from the Los Angeles Conservancy on April 16, 2021. Erik Van Breen (Preservation Coordinator) responded he had no information on the Project Area and recommended Cogstone contact the Covina Valley Historical Society or Pomona Heritage. No responses have been received from the Covina Valley Historical Society, Historical Society of Pomona Valley, or the Pepsi-Cola Bottlers Association.
<table>
<tr><td>Group</td><td>Attempts</td></tr>
<tr><td>Covina Valley Historical Society</td><td>1st attempt: Mail April 16, 2021.
2nd attempt: Mail June 15, 2021
3rd attempt: Mail June 28, 2021</td></tr>
<tr><td>Historical Society of Pomona Valley</td><td>1st attempt: Mail April 16, 2021;
2nd attempt: Mail June 15, 2021
3rd attempt: Mail June 28, 2021</td></tr>
<tr><td>Los Angeles Conservancy</td><td>1st attempt: Email April 15, 2021;
2nd attempt: Mail June 15, 2021</td></tr>
<tr><td>Pepsi-Cola Bottlers Association</td><td>1st attempt: Mail May 11, 2021;
2nd attempt: Email May 21, 2021
3rd attempt: Mail June 28, 2021</td></tr>
</table>
</td></tr>
<tr><td>Bureau of Land Management (BLM) General Land Office Records</td><td>Positive: See Table 5</td></tr>
</table>

Table 5. BLM Land Patents

Name	Year	Accession Number	Type	T; R; Section
John Reed	1878	MW-0559-069	Military Warrant	Township 1 South; Range 10 West; Southwest ¼ of Southwest ¼ of Section 9

NATIVE AMERICAN CONSULTATION

Cogstone requested a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC) on April 13, 2021. On April 27, 20121 the NAHC responded that the Project Area was negative for any known sacred sites or resources. The NAHC provided a list of seven tribes affiliated with the Project Area and recommended that they be consulted for information on sacred sites in the vicinity of the Project Area (Appendix C). Cogstone assisted the City with Assembly Bill 52 (AB 52) consultations. Cogstone sent letters requesting consultation to each of the tribes listed by certified mail on May 6, 2021. A follow up email was sent on June 2, 2021, and a final attempt to reach the tribes was made by phone on June 10, 2021. Three responses were received.

On June 10, 2021, Gabrieleño Band of Mission Indians - Kizh Nation Chairman Andrew Salas indicated during a telephone call that he was going to follow up with the City of Irwindale.

On June 17, 2021, Gabrielino Tongva Indians of California Tribal Council Chairperson Robert Dorame contacted via telephone call and said that the Tribe would like to be notified if prehistoric materials are found and would like to be notified if burial remains are found even if his group is not designated Most Likely Descendent. If burial remains are found the Tribe wants to engage in formal consultation.

On June 10, 2021, a Santa Rosa Band of Cahuilla Indians representative indicated during a telephone call that the Tribe did not have any comments.

SURVEY

METHODS

The survey stage is important in a Project's environmental assessment phase to verify the exact location of each identified cultural resource, the condition or integrity of the resource, and the proximity of the resource to areas of cultural resources sensitivity. All undeveloped ground surface areas within the ground disturbance portion of the Project Area were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Existing ground disturbances (e.g., cutbanks, ditches, animal burrows, etc.) were visually inspected. Photographs of the Project Area, including ground surface visibility and items of interest, were taken with a digital camera.

Methods pertaining to the survey of built environment included thoroughly photographing all , elevations/facades of a building or structure including close-up photographs of important architectural features. Character defining features of a building or structure's exterior (including overall shape of the building, its materials, craftsmanship, decorative details, etc.) were documented along with any and all notable alterations (both historic and non-historic). Only the building's exterior was documented.

RESULTS

On April 23, 2021 Cogstone archaeologist and cross-trained paleontologist Cassidy Sharp surveyed all non-hardscaped portions of the Project Area using two to three meter wide transects (Figures 6-9). Ground visibility was generally poor (15 to 20 percent). Surface sediments within the Project Area are silty loam with many subangular to rounded pebbles and cobbles. No archaeological or paleontological resources were found.

An approximately 30 feet long section of railroad track was identified inside the eastern edge of the Project Area where Southern Pacific Railroad tracks complete their curve to proceed north (Figure 7). The Southern Pacific Railroad tracks sit outside but adjacent to the Project Area's southern and eastern boundaries. The 1948 USDA aerial photograph depicts both sides of the eastern and southern boundaries of the Project Area in agricultural production with the Sothern Pacific rail line in place, in its current configuration (NETROnline 1948). The 30 feet long section of track is not visible in this photograph. Subsequent USDA aerial photographs from 1952, 1953, 1964, 1965, 1972, and 1977 indicate that there was not a rail spur that veered west from the Southern Pacific Railroad tracks into the Project Area (NETROnline 1952, 1953, 1964, 1965, 1972, 1977). As there was no spur that enters the Project Area, and the 30 feet section of track is not present in the 1979 USDA aerial photograph (NETROnline 1979), the section of track is considered to be less than 45 years old. This section was not recorded on Department of Parks and Recreation (DPR) 523 series forms and is excluded from this analysis.

Figure 6. Overview of southern portion of Project Area, view northeast

Figure 7. Overview along southern edge of Project Area. view east-northeast.

Figure 8. Overview of north portion of Project Area with Big Dalton Channel at left, view northeast

Figure 9. Typical sediments in non-hardscaped portions of Project Area

BUILT ENVIRONMENT RESULTS

Cogstone's Architectural Historian Shannon Lopez conducted a built environment survey of historic-aged buildings within the Project Area on April 23, 2021. One resource, a Pepsi-Cola bottling plant constructed in the late 1950s, was identified. Despite access limitations to the building due to locked chain linked fences, Ms. Lopez was able to photograph the exterior of the building (Appendix D).

Pepsi-Cola Bottling Plant (4416 Azusa Canyon Road)

This one-story industrial building is rectangular in shape with large additions located at the northwest and the northeast elevations. The main body of the building has a flat roof without overhang. The two additions also have a flat footprint with flat roofs but with a wide eave overhang. The exterior of the building consists of concrete at the southeast, southwest, and northwest elevations and corrugated metal sheeting at the northeast elevation. The concrete northwest, southwest, and southeast elevations also include evenly spaced concrete pilasters. The main entrance is located at the northern end of the southwest façade and consists of a single glass pedestrian door with transom window, and multiple large, fixed window panels (six panes each) set in aluminum frames. Directly above the main entrance and windows is a blue, metal, louvered awning fixed to the building's exterior (added ca. 2012-2016) (NETROnline 2012-2016). The large, fixed window panels continue along the western third of the northwest elevation and are also sheltered by metal louvered awnings (installed ca. 2012-2016).

The rectangular flat roofed addition at the northeast elevation is supported by six steel and concrete pillars. The roof and eaves are clad in corrugated metal sheeting. A corrugated metal sheet awning shelters a section of the below grade loading ramp which is adjacent to the northeast elevation of this addition. The second addition at the building's northwest elevation is shorter than the roofline of the main building. The exterior walls appear to be painted cinderblock or brick. A large flat roofed overhang supported by five steel and concrete pillars is at the northwest elevation of the addition.

IMPACT ANALYSIS

PALEONTOLOGICAL SENSITIVITY

A multilevel ranking system was developed by professional resource managers within the Bureau of Land Management (BLM) as a practical tool to assess the sensitivity of sediments for fossils. The Potential Fossil Yield Classification (PFYC) system (BLM 2016; Appendix E) has a multi-level scale based on demonstrated yield of fossils. The PFYC system provides additional guidance regarding assessment and management for different fossil yield rankings.

Fossil resources occur in geologic units (e.g., formations or members). The probability for finding significant fossils in a project area can be broadly predicted from previous records of fossils recovered from the geologic units present in and/or adjacent to the study area. The geological setting and the number of known fossil localities help determine the paleontological sensitivity according to PFYC criteria.

Sediments that are close to their basement rock source are typically coarse; those farther from the basement rock source are finer. The chance of fossils being preserved greatly increases once the average size of the sediment particles is reduced to 5 mm in diameter or less. Moreover, fossil preservation also greatly increases after natural burial in rivers, lakes, or oceans. Remains left on the ground surface become weathered by the sun or consumed by scavengers and bacterial activity, usually within 20 years or less. So the sands, silts, and clays of rivers, lakes, and oceans are the most likely sediments to contain fossils.

Using the PFYC system, geologic units are classified according to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts within the known extent of the geological unit. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment.

Artificial fill is assigned a very low potential for fossils (PFYC 1; Table 6). Impacts more than 20 feet below the original ground surface in the young alluvial fan deposits, unit 3, are assigned a moderate sensitivity (PFYC 3), while those less than 20 feet below the original ground surface are assigned a low sensitivity (PFYC 2).

Table 6. Paleontological sensitivity rankings of Project units

	PFYC Ranking				
	5: Very High	**4: High**	**3: moderate**	**2: Low**	**1: Very Low**
artificial fill					X
young alluvial fan deposits, unit 3			more than 20 feet below surface	less than 20 feet below surface	

Rankings as per BLM 2016.

ARCHAEOLOGICAL SENSITIVITY

Based on pedestrian survey, the cultural records search results from the SCCIC, and the negative SLF search results, the Project Area is assessed to have low sensitivity for prehistoric resources. Based on these data sources and the review of USGS topographic quadrangle maps and historic

USDA aerial photographs, the Project Area is assessed to have low to moderate sensitivity for buried historic archaeological resources as the building type and related information is not known for the two buildings that are seen on the 1953 Baldwin Park USGS topographic quadrangle map but are no longer present in the 1956 USDA aerial photograph (Frame Finder 1956).

CALIFORNIA REGISTER OF HISTORICAL RESOURCES (CRHR) ELIGIBILITY EVALUATION

To be eligible for listing in the CRHR, a resource must meet at least one of the following criteria:

- Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion 2. Is associated with the lives of persons significant in our past.
- Criterion 3. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion 4. Has yielded, or may be likely to yield, information important in history or prehistory.

PEPSI-COLA BOTTLING PLANT (4416 AZUSA CANYON ROAD)

Historic Context

Significance: Theme: Commercial/Light Industrial Development
Period of Significance: 1956-2020

The historic context of this resource is Commercial/Light Industrial Development as it relates to soft drink production and distribution (See Historic Setting: The Pepsi Bottling Group Inc. and Pepsi-Cola Bottlers of California in the 1950s for more information). The period of significance begins with the facility's opening year in 1956 and ends with its year of final closure in 2020.

Criterion 1

This building is associated with Pepsi-Cola Co. (now PepsiCo.) and was responsible for the production and distribution of Pepsi products from 1956 to its closure in 2020. At the time of this facility's construction (late 1950s) a total of 22 Pepsi-Cola Bottling plants (including the plant at 4416 Azusa Canyon Road) were operating throughout the State of California (with many more locations across the United States). At present, a total of six of these 1950s California locations remain, five of which operate under the company name “Pepsi Bottling Group.” The multiple locations of these botting facilities operating in the State of California alone reflect the success of the Pepsi-Cola Co. nationwide. While this building is associated with the Pepsi-Cola Co./ PepsiCo., its history of operation is not an exceptional representation of this period of time. Despite intensive research efforts, no records could be found which associate this facility with any significant contributions to the growth and development of Pepsi-Cola Co. beyond its intended function to produce and distribute Pepsi-Cola products. It is also not an exemplary representation of the capabilities of Pepsi Bottling facilities when compared to other bottling plants from this time period, at least six of which still exist today. Therefore, this building is recommended not eligible for listing the California Register of Historic Resources (CRHR) Criterion 1.

Criterion 2
Following a thorough background investigation regarding this facility, this building is not known to be associated with the lives of significant persons in our past; therefore, this building is recommended not eligible for listing under CRHR Criterion 2.

Criterion 3
This building does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. This building is Utilitarian in style with minimal ornamentation. The building’s footprint is a standard rectangular footprint and includes one single story flat roofed addition at its northwest elevation and one rectangular, single-story, flat roofed addition at its northeast elevation. Extensive research and comparison of this facility to other extant bottling plants of the same time period indicate that this facility is unexceptional in its design with some of its contemporaries exhibiting more notable decorative features. Therefore, this building is recommended not eligible for listing under CRHR Criterion 3.

Criterion 4
This building has not yielded nor may be likely to yield, information important in history or prehistory; therefore this building is recommended not eligible for listing under CRHR Criterion 4.

Integrity:
This building retains its integrity of Location, Association, and Feeling. There is notable loss of integrity of Setting due to industrial development of the surrounding area.

Upon review of various contemporary Pepsi-Cola Bottling plants of the 1950s and 1960s, it is common for these buildings to undergo alteration and expansion during their years of operation in order to improve the facility’s efficiency and productive output. The building additions at the Irwindale Pepsi-Cola Bottling Plant follow this method of facility improvement as they expand the loading bay area, thus improving the building's capacity for the import and export of goods and materials. Therefore, while the construction of these additions does alter the building's original integrity of Design, Materials, and Workmanship it is not necessarily a negative impact.

CONCLUSIONS AND RECOMMENDATIONS

PALEONTOLOGICAL RESOURCES

The Project Area is mapped entirely as late Pleistocene to Holocene young alluvial fan deposits (unit 3). The record search revealed no fossil localities from within the Project Area or immediate vicinity; however, localities are recorded near the Project from the same sediments as those found within the study area.

The paleontological records search revealed that all of the fossils previously recovered within an 18-mile radius of the Project were a minimum of two feet deep, occurring in deposits mapped as Pleistocene alluvium at the surface. Sediments with a Holocene component such as those of the study area produced fossils starting at 24 feet deep near to the Project Area. As such, the late Pleistocene to Holocene young alluvial fan sediments less than 20 feet below the modern surface are assigned a low potential for fossils (PFYC 2) due to the lack of fossils in these deposits. More than 20 feet below the modern surface, these sediments are assigned a moderate potential for fossils (PFYC 3) due to similar deposits producing fossils at that depth near to the study area.

Based upon records of fossils found in similar sediments nearby, no paleontological monitoring is currently recommended for the mass excavations. Drilling or pile driving activities, regardless of depth, have a low potential to produce fossils meeting significance criteria, because any fossils brought up by the auger during drilling will not have information about formation, depth or context. The only instance in which such fossils will meet significance criteria is if the fossil is a species new to the region.

In the unlikely event that fossils are found the following mitigation measures will apply:

PAL-1: If unanticipated fossil discoveries are made, all work must halt within 50 feet until a qualified paleontologist can evaluate the find. Work may resume immediately outside of the 50-foot radius. Mitigation Measures PAL-2 and PAL-3 shall be implemented.

PAL-2: If the discoveries are determined to be significant, full-time paleontological monitoring will be recommended for the remainder of ground disturbance for the project. Paleontological monitoring shall entail the visual inspection of excavated or graded areas and trench sidewalls. In the event that a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and collected. Monitoring efforts can be reduced or eliminated at the discretion of the project paleontologist.

PAL-3: Upon completion of fieldwork, all significant fossils collected shall be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation shall include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossil specimens shall be identified to the most specific taxonomic level possible, cataloged, analyzed, and delivered the Natural History Museum of Los Angeles County for permanent curation and storage. The cost of curation is assessed by the repository and shall be responsibility of the land owner. At the conclusion of laboratory work and museum curation, a final Paleontological Monitoring Report (PMR) shall be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project area geology and paleontology, a list of taxa recovered, an analysis of fossils recovered and their scientific significance, and recommendations. A copy of the report shall also be submitted to the Natural History Museum of Los Angeles County.

ARCHAEOLOGICAL RESOURCES

No further cultural resources work is necessary. Cogstone recommends for the proposed Project to proceed as planned. Should cultural resources be identified during construction the following mitigation measures are recommended.

CUL-1: If an inadvertent cultural material is discovered during ground-disturbing activities, all work must halt within 50 feet of the find until the qualified archaeologist can determine the significance. No soil shall be exported from within the 50-foot buffer around the find until a determination of significance is made. The qualified archaeologist will then also determine if continued archaeological monitoring is warranted.

If the qualified archaeologist determines that the find qualifies as a significant cultural resource, the archeologist shall make recommendations on the treatment and disposition of the deposits, which shall be developed in accordance with all applicable provisions of California Public Resource Code Section 21083.2 and State CEQA Guidelines Sections 15064.5 and 15126.4. For example, if significant cultural resources are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan. The archaeologist shall prepare a final report describing monitoring methods that includes a catalog of all~~ and curated~~ cultural resources identified during the Project for submission to the City. The City will determine disposition of collected cultural resources which may include return to landowner/applicant, transfer to a consulting Native American group, donation to school or museum, or long term curation at an approved curation facility. The applicant shall be financially responsible for costs associated with cultural resources monitoring, including artifact curation, up to the limits imposed by Public Resources Code Section 21083.2.

CUL-2: The City of Irwindale will notify The Gabrielino Tongva Indians of California Tribal Council (Tribe) if prehistoric materials, including Native American burial remains, are found. Any notification by the City of Irwindale to the Tribe of the discovery of burial remains will be separate from the Native American Heritage Commission (NAHC) process and will occur regardless of whether the NAHC designates the Tribe as Most Likely Descendent. If Native American burial remains are found the Tribe will engage the City of Irwindale in formal Native American consultation.

In accordance with California Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then can recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the health and safety code have been met.

In accordance with California Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the health and safety code have been met

BUILT ENVIRONMENT RESOURCES

One built environment resource, a historic-age building, was thoroughly documented during Cogstone’s 2021 built environment survey using Department of Parks and Recreation 523 forms (Appendix F). Due to a lack of significance, this building is recommended not eligible for listing at the local, state, or national level. Demolition and renovations of the existing structure does not require any mitigation due to lack of significance.

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APPENDIX A. QUALIFICATIONS

DESIREÉ RENEÉ MARTINEZ

Overall QAQC

EDUCATION

1999 M.A., Anthropology (Archaeology), Harvard University, Cambridge
1995 B.A., Anthropology, University of Pennsylvania, Philadelphia

TRAININGS AND CERTIFICATIONS

2017 Section 106 Advanced Seminar, Advisory Council for Historic Preservation, Riverside, CA
2017 Consulting with SHPO, Society for California Archaeology, Yosemite, CA
2010 Professional CEQA/NEPA Certificate, ICF International Corporation, Rosemead, CA
2009 Section 106 Training, Advisory Council for Historic Preservation, Agua Caliente, Palm Springs, CA
2002 National Environmental Protection Act Workshop, University of Nevada, Reno, Heritage Resources Management Program, Crown Plaza Hotel, Seattle, WA
2000 Consulting with Indian Tribes on Cultural Resources, National Preservation Institute, Riverside, CA

SUMMARY OF QUALIFICATIONS

Ms. Martinez is a Registered Professional Archaeologist (RPA) with 24 years of experience in archaeological fieldwork, research, and curation. She has expertise in the planning, implementation, and completion of all phases of archaeological work and has participated in archaeological investigations as a principal investigator, crew member, and tribal monitor. She meets national standards in archaeology set by the Secretary of Interior's *Standards and Guidelines for Archaeology and Historic Preservation.* Her experience also includes compliance with CEQA, NEPA, NHPA Sec. 106, NAGPRA, SB 18, AB 52, and California General Order 131-D exemption. Ms. Martinez has extensive experience consulting with Native American leaders and community members in a variety of contexts.

SELECTED EXPERIENCE

Deep Soil Mixing Pilot Project, Community of Pacific Palisades, Los Angeles County, CA. As part of an on-call contract with the Los Angeles Bureau of Engineering (LABOE), Cogstone provided cultural and paleontological resources monitoring as well as managed Native American monitoring during ground-disturbing activities. The City of Los Angeles was the lead agency under the California Environmental Quality Act (CEQA). Monitoring for the Project was conducted in compliance with the Contingency Plan conditions for the Coastal Development Permit (CDP) from the California Coastal Commission (CCC). No cultural or paleontological resources were identified. No further work was necessary. Sub to ICF. Task Manager. 2020

Heathercliff Malibu Development Project, City of Malibu, Los Angeles County, CA. Cogstone conducted a study to determine the potential impacts to cultural resources resulting from the construction of a single residence bounded by Heathercliff Road to the southeast and the Pacific Coast Highway to the northwest. This study included all information required by the City of Malibu Archaeology Guidelines. Cogstone conducted a record search, Sacred Lands File Search, pedestrian survey, and produced an assessment. Sub to ACS Construction. Task Manager. 2019

Florence Mills Apartments Project, City of Los Angeles, Los Angeles County, CA. This project was for the development of affordable and subsidized multi-family apartment buildings along the Historic Central Avenue Corridor in Southeast LA. Cogstone conducted monitoring of construction activities associated with excavation of historic-age and modern-age fill, as well as native soils, functions to ensure archaeological materials not previously exposed would be identified, assessed and impacts mitigated in order to preserve and/or extract the maximum scientific value of the resource. Task Manager. 2019

Roosevelt Park Regional Stormwater Capture Project, unincorporated area of Florence-Firestone, Los Angeles County, CA. Cogstone conducted cultural and paleontological monitoring during all ground-disturbing activities in native sediments. This project included the construction of three diversion structures and pipelines. Upon completion of monitoring, a cultural and paleontological compliance report was prepared. Sub to Environmental Advisors. Archaeology Supervisor and Report Author. 2018

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

ERIC SCOTT
Paleontology QA/QC

EDUCATION

1990 M.A., Anthropology (Biological), University of California, Los Angeles
1985 B.A., Anthropology (Physical), California State University, Northridge

SUMMARY OF QUALIFICATIONS

Mr. Scott is a professional vertebrate paleontologist with over four decades of experience in paleontological mitigation, fieldwork, curation, and research. He is an emeritus paleontology curator at the San Bernardino County Museum, an adjunct instructor at California State University, San Bernardino, and a research associate of the Natural History Museum of Los Angeles County and the La Brea Tar Pits and Museum. He is a 30+ year member of the Society of Vertebrate Paleontology, an international society of professional scientists where he currently serves on the Government Affairs Committee and also holds membership in the Geological Society of America and other professional societies. Eric has published over 40 research articles in professional scientific journals.

SELECTED EXPERIENCE

Purple Line Extension (Westside Subway), Sections 1 and 2, Metropolitan Transit Authority (METRO), Los Angeles, CA. The project involves construction of seven stations from the existing Purple Line at Wilshire/Western Avenue along Wilshire Boulevard to the Veterans Administration Hospital in Westwood for 8.6 miles. Cogstone supervises paleontological monitoring, fossil recovery, and fossil preparation in the lab. Sub to JV West (Section 1) and AECOM (Section 2). Principal Paleontologist. 2017-ongoing

Deep Soil Mixing Pilot Project, Community of Pacific Palisades, Los Angeles County, CA. As part of an on-call contract with the Los Angeles Bureau of Engineering (LABOE), Cogstone provided cultural and paleontological resources monitoring as well as managed Native American monitoring during ground-disturbing activities. The City of Los Angeles was the lead agency under the California Environmental Quality Act (CEQA). Monitoring for the Project was conducted in compliance with the Contingency Plan conditions for the Coastal Development Permit (CDP) from the California Coastal Commission (CCC). No cultural or paleontological resources were identified. No further work was necessary. Sub to ICF. Principal Investigator for Paleontology. 2020

Gates Canyon Stormwater Capture Project, unincorporated area of Calabasas, Los Angeles County, CA. Cogstone conducted cultural and paleontological resources monitoring for 31 days during proposed improvements to Gates Canyon Park that would allow the capture and storage of stormwater runoff from an adjacent 105-acre residential area. Monitoring complied with program mitigation measures and as defined by the County of Los Angeles, Department of Public Works (LACDPW). LACDPW was the project proponent and acted as the lead agency under CEQA. Sub to Aspen Environmental. Task Manager. 2019

Irvine General Plan Update - Phase II, City of Irvine, Orange County, CA. Cogstone conducted a study to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of Irvine to support the Phase II update of the City's General Plan. A general analysis of impacts of future projects within the City of Irvine that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to PlaceWorks. Paleontology QA/QC. 2018-2019

Camino de la Cumbre Project, City of Sherman Oaks, Los Angeles County, CA. Cogstone conducted a paleontological resources assessment to determine the potential for impacting fossil resources during excavations of the Camino de la Cumbre residential development project. Services included a records search, background research, pedestrian survey, and report preparation. Sub to Ridge, Inc. Task Manager. 2018

JOHN GUST
Principal Investigator for Archaeology

EDUCATION

2016 Ph.D., Anthropology, University of California, Riverside (UCR)
2011 M.A., Anthropology, UCR
2007 M.A., Applied Geography, University of Colorado, Colorado Springs (UCCS)
2002 B.A., Anthropology, minor in Geography/Environmental Studies, UCCS

SUMMARY OF QUALIFICATIONS

Dr. Gust is a Registered Professional Archaeologist (RPA) with over 9 years of experience in field archaeology. He meets the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and his field expertise includes pedestrian surveys, excavation monitoring, resource recording, and historic artifact analysis. He has managed cultural resources projects for both public and private sector clients. Dr. Gust is a member of the Society for California Archaeology, Society for American Archaeology, and the American Anthropological Association.

SELECTED EXPERIENCE

Deep Soil Mixing Pilot Project, Community of Pacific Palisades, Los Angeles County, CA. As part of an on-call contract with the Los Angeles Bureau of Engineering (LABOE), Cogstone provided cultural and paleontological resources monitoring as well as managed Native American monitoring during ground-disturbing activities. The City of Los Angeles was the lead agency under the California Environmental Quality Act (CEQA). Monitoring for the Project was conducted in compliance with the Contingency Plan conditions for the Coastal Development Permit (CDP) from the California Coastal Commission (CCC). No cultural or paleontological resources were identified. No further work was necessary. Sub to ICF. Principal Investigator for Archaeology. 2020

Bell Gardens Water Reservoir Project, City of Bell Gardens, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during improvements which included a new two-million-gallon reservoir, booster pump station, well to be drilled, and other components. Services included record searches, Sacred Lands File search from the Native American Heritage Commission, and an intensive-pedestrian survey of the 1.7-acre project area. Sub to Infrastructure Engineers. Principal Investigator for Archaeology. 2019-2020

Los Angeles World Airports (LAWA) Terminal 1.5 Project, City of Los Angeles, Los Angeles County, CA. Cogstone conducted cultural and paleontological resources monitoring during the excavations for the construction of a new airport terminal at LAX that included the construction of a five-story structure with four above-grade levels and one basement level. Cogstone also conducted archaeological and paleontological Worker Environmental Awareness Program (WEAP) training for all construction personnel. The City of Los Angeles was the lead agency for the project. Sub to CDM. Archaeology Supervisor and Report Author. 2018-2019

Heathercliff Malibu Development Project, City of Malibu, Los Angeles County, CA. Cogstone conducted a study to determine the potential impacts to cultural resources resulting from the construction of a single residence bounded by Heathercliff Road to the southeast and the Pacific Coast Highway to the northwest. This study included all information required by the City of Malibu Archaeology Guidelines. Cogstone conducted a record search, Sacred Lands File Search, pedestrian survey, and produced an assessment. Sub to ACS Construction. Principal Investigator for Archaeology and Report Author. 2019

Florence Mills Apartments Project, City of Los Angeles, Los Angeles County, CA. This project was for the development of affordable and subsidized multi-family apartment buildings along the Historic Central Avenue Corridor in Southeast LA. Cogstone conducted monitoring of construction activities associated with excavation of historic-age and modern-age fill, as well as native soils, functions to ensure archaeological materials not previously exposed would be identified, assessed and impacts mitigated in order to preserve and/or extract the maximum scientific value of the resource. Archaeology Supervisor and Report Author. 2019

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

KIM SCOTT
Principal Investigator for Paleontology

EDUCATION

2013 M.S., Biology with a paleontology emphasis, California State University, San Bernardino
2000 B.S., Geology with paleontology emphasis, University of California, Los Angeles

SUMMARY QUALIFICATIONS

Ms. Scott has more than 25 years of experience in California paleontology. She is a sedimentary geologist and qualified paleontologist with extensive experience. She is a skilled professional who is well-versed in the compliance procedures of CEQA, NEPA, and the Paleontological Resources Preservation Act (PRPA). Ms. Scott regularly prepares reports for paleontological assessments, mitigation and monitoring plans and measures, and monitoring reports for a variety of federal, state, and local agencies throughout California. In addition, she has prepared paleontological resources reports for CEQA/ EIR compliance documents for Project-level and program-level Specific Plans, General Plans, Master Plans, and Zoning Amendments for mixed-use, residential, commercial and industrial developments. Ms. Scott serves as company safety officer.

SELECTED PROJECTS

Purple Line Extension (Westside Subway), Metro/FTA, Los Angeles, CA. The Project involves extension of the subway from Wilshire/Western to the VA Facility in Westwood for 9 miles. Cogstone prepared the supplemental Archaeology and Architectural History Reports and the cultural and paleontological sections of the FEIS/FEIR. Cogstone subsequently prepared the cultural and paleontological mitigation and monitoring plans for the entire Project. Currently providing monitoring and all other cultural and paleontological services for Section One of the Project. Paleontological Field and Lab Director, Report Co-author. 2011-present

Barren Ridge Transmission Line, Los Angeles Department of Water and Power (LADWP), Saugus to Mojave, Los Angeles and Kern Counties, CA. Over 75 miles of LADWP electrical lines were installed Angeles National Forest, BLM and private lands. Supervised paleontological monitoring and lab work and prepared a Paleontological Monitoring Report to CEQA, BLM, and PRPA standards. Sub to Aspen Environmental Group. Principal Paleontologist. 2015-present

City of La Verne General Plan, Los Angeles County, CA. The Project was for an update to the City's General Plan, a 5,446-acre area. Provided a Paleontological and Cultural Assessment Report for the City. Sub to De Novo Planning Group. Principal Paleontologist. 2018

Interstate 405 Paleontological Resources Mitigation Plan, Los Angeles and Orange Counties, CA. Improvements to a 6-miles of Interstate 405 (I-405) between State Route 73 and Interstate 605. Provided a Paleontological Mitigation and Monitoring Plan. Principal Paleontologist. Sub to OC 405 Partners. 2018

Little Tujunga Canyon Bridge, Angeles National Forest, Los Angeles County, CA. The Project was to replace the Little Tujunga Canyon Road Bridge along Little Tujunga Canyon Road. Provided a Paleontological Assessment Report. Sub to Michael Baker International. Principal Paleontologist. 2017

Park Place Extension Project, City of El Segundo, Los Angeles County, CA. The City proposed to extend Park Place from Allied Way to Nash Street with a railroad grade separation to implement a critical Project improving traffic and circulation in the Project Area. Provided a combined Paleontological Identification and Evaluation Report (PIR/PER). Sub to Michael Baker International. Principal Paleontologist. 2017

Coto de Caza EIR Subdivision, Coto de Caza, Orange County, CA. The project proposed the subdivision of an existing large estate for development of 28 new residential lots on approximately 50-57 acres of land. Proposed residential lots were a minimum of one acre in size. Prepared a Paleontological Assessment Report. Contracted to Bill Lyon. Co-Principal Paleontologist/Report Co-author. 2015

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

SHANNON LOPEZ
Architectural Historian and Co-Author

EDUCATION

2018 M.A., History (with an emphasis in architecture), California State University, Fullerton
2012 B.A., History, Minor in Asian-Pacific Studies, California State University, Dominguez Hills

SUMMARY OF QUALIFICATIONS

Ms. Lopez is a qualified historian and she meets the Secretary of the Interior's *Standards and Guidelines for Architectural History.* She is experienced in architectural history research and surveys along with photo documentation and recording of built environment resources for local and federal projects. Ms. Lopez is acknowledged as an approved Architectural Historian by Caltrans. She has extensive knowledge with Native American consultation, consultation with city and county historical societies, and analysis of primary and secondary sources. Additionally, she is an approved Reader at the Huntington Library by the Los Angeles Office of Historic Resources.

SELECTED EXPERIENCE

Los Angeles Harbor College, City of Los Angeles, Los Angeles County, CA. Cogstone conducted a study to determine the potential impacts to cultural resources for the proposed demolition, renovation, and construction at the college. Three of the building scheduled for demolition were considered historic in age and required evaluation under CEQA. Cogstone conducted a records search, historical society outreach, a pedestrian survey, and produced a Historic Resources Evaluation Report. Sub to PlaceWorks. Architectural Historian. 2020

Long Beach Municipal Urban Stormwater Treatment (MUST) Project, Los Angeles County, CA. In 2017, Cogstone prepared a cultural and paleontological resources assessment for the proposed construction of a stormwater facility. The project intended to improve the water quality of existing urban runoff to the Los Angeles River, and ultimately to the Long Beach Harbor. Services included pedestrian surveys, records searches, background research, built environment assessment, Native American consultation, and reporting. In 2020, Cogstone produced a Paleontological Resources Management Plan to propose effective mitigation of potential impacts to paleontological resources resulting from proposed construction of MUST and its associated Wetlands project. Sub to Michael Baker. Architectural Historian. 2020

Fresno West Area Specific Plan, City of Fresno, Fresno County, CA. Cogstone conducted a study to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the city in order to guide future growth and development. Cogstone conducted a records search and in-depth background research. Of the 82 previously recorded cultural resources, 78 were built environment. Three mitigation measures were recommended for future development. The City of Fresno acted as the lead agency under CEQA. Sub to De Novo. Architectural Historian. 2019

Purple Line Extension (Westside Subway) Crack Propagation Reassessment, City of Beverly Hills, Los Angeles County, CA. On behalf of METRO, Cogstone was approved to reassess the exterior façade of the old Porsche building located on Wilshire Boulevard. The purpose of this reassessment was to document and compare the cracks of the current building during construction of the underground subway with those recorded in a pre-construction survey. Architectural Monitor. 2018

3800 W. 6th Street Mixed-Used Development, Koreatown, Los Angeles County, CA. Cogstone conducted a paleontological and cultural resources assessment for proposed construction of a 21-story mixed-use development with two levels of underground parking. Services included records search, built environment survey, resource recording and technical report. Architectural Historian. 2018

La Verne General Plan Update, City of La Verne, Los Angeles County, CA. Cogstone reviewed and summarized available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of La Verne to support an update of the City's General Plan. Ms. Lopez guided the extensive historical research at City Hall where building records, Mills Acts, photographs and other documents were reviewed. Sub to De Novo. Co-Architectural Historian. 2018

SANDY DUARTE
Archaeologist and Co-Author

EDUCATION

2002 B.A., Cultural Anthropology, University of California, Santa Barbara

TRAINING AND CERTIFICATIONS

HAZWOPER Certified - Certified American Red Cross CPR; Certified American Red Cross Standard First Aid
Applied Archaeology of Southern California, USDA Forest Service, San Bernardino National Forest
Railroad Security Certified

SUMMARY OF QUALIFICATIONS

Ms. Duarte is a skilled archaeologist with 18 years of experience in monitoring, surveying, and excavation in California. She has experience with Native American consultation as required by Section 106 of the National Historic Preservation Act (NHPA) and under Senate Bill 18 for the protection and management of cultural resources. Beginning in 2006, Ms. Duarte worked for the U.S. Forest Service in the Biology, Timber, and Geology Department as an archaeologist, including serving as a trained wild-land firefighter to preserve archaeological sites in forest fires. Additional skills include paleontological identification, fossil preparation, artifact identification and preparation, and final report preparation.

SELECTED EXPERIENCE

Newport Village Project, City of Newport Beach, Orange County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during proposed construction of 14 residential condominium units, 108 apartment units, and 121,370 square feet of mixed-use development. The project would also have publicly accessible waterfront promenade with 844 parking spaces in surface-level and subterranean parking. Services included records searches, pedestrian survey, Sacred Lands File search from the NAHC, background research, and reporting. The City of Newport Beach acted as the lead agency under CEQA. Sub to Cox, Castle & Nicholson LLP. Archaeologist. 2019-2020

Prologis Vermont Avenue and Redondo Beach Industrial Project, City of Los Angeles, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during proposed construction of an industrial center, 223 automobile parking spaces, 32 bicycle parking spaces, 36 high truck loading positions, and parking stalls for truck trailers. Services included records searches, pedestrian survey, Sacred Lands File search from the NAHC, background research, and reporting. The City of Los Angeles acted as the lead agency under CEQA. Sub to PlaceWorks. Archaeologist. 2019-2020

Bell Gardens Water Reservoir Project, City of Bell Gardens, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during improvements which included a new two-million-gallon reservoir, booster pump station, well to be drilled, and other components. Services included record searches, Sacred Lands File search from the NAHC, and an intensive-pedestrian survey of the 1.7-acre project area. Sub to Infrastructure Engineers. Archaeologist/Co-Author. 2019-2020

Firestone Phoenix, City of Los Angeles, Los Angeles County, CA. Cogstone provided cultural resources monitoring during ground-disturbing construction activities. Excavation activities included grubbing, mechanical excavation, and grading. Cogstone also conducted Worker Environmental Awareness Program (WEAP) training for construction personnel. Two artifacts were collected during monitoring and returned to the property owner. All work was completed in compliance with NEPA, CEQA, PRC, and project specific requirements from the Los Angeles County Development Authority (LACDA). A cultural resources monitoring compliance report was submitted upon completion of monitoring. Sub to A Community of Friends. Archaeologist. 2019-2020

KELLY VREELAND
Paleontologist and Co-Author

EDUCATION

2014 M.S., Geology, California State University, Fullerton (CSUF)
2010 B.S., Geology, CSUF

SUMMARY OF QUALIFICATIONS

Ms. Vreeland is a Paleontologist with over 10 years of experience in field paleontology. Her field and laboratory experience includes fieldwork and research projects throughout California and Nevada, as well as conducting fieldwork and surficial geologic mapping in Montana. Ms. Vreeland has expertise in invertebrate paleontology and paleoecology. Ms. Vreeland is a member of the Geological Society of America, the Paleontological Society, the Society for Sedimentary Geology, and the Association for Women in Geoscience.

SELECTED EXPERIENCE

Jack Ranch Tract, unincorporated area of San Luis Obispo County, CA. Cogstone prepared a Paleontological Mitigation Plan (PMP) to propose effective mitigation of potential adverse impacts to paleontological resources resulting from proposed construction of 13 residential lots as well as a Conditional Use Permit to allow for a Major Agricultural Cluster project. Cogstone is providing archaeological and paleontological monitoring during construction for residential development of a 299-acre parcel. The County of San Luis Obispo is the lead agency for this project under the California Environmental Quality Act. Sub to Kirk Consulting. Paleontology Supervisor. 2020-*present*

Five Point Community Development - various projects, City of Irvine, Orange County, CA. LSA Associates conducted paleontological and archaeological resources monitoring for various Five Point Community Development projects in Irvine as well as preparation of environmental documents. Paleontologist. 2015-2020

Alameda Corridor East Grade Separation Projects, various cities, Los Angeles County, CA. LSA Associates conducted on-call paleontological resource monitoring for various railway grade separation projects and preparation of Paleontological Mitigation Plans. Paleontologist. 2019-2020

South Campus Student Housing Project, City of Sacramento, Sacramento County, CA. LSA Associates prepared a Paleontological Resources Monitoring and Mitigation Plan as well as developed and conducted a Workers Environmental Awareness Program (WEAP) training. The project involved construction and operation of student housing facilities for upper-division university students adjacent to the California State University, Sacramento campus. Paleontologist. 2020

American Kings Solar Project, Kings County, CA. LSA Associates prepared a Paleontological Analysis for the proposed construction, operation, maintenance, and decommissioning of an up to 128-megawatt alternating current photovoltaic solar power-generating facility. Paleontologist. 2019

Teresina Project, City of Lake Forest, Orange County, CA. LSA Associates conducted paleontological and archaeological resources monitoring during grading for the development of a new residential community. Upon completion of the project, a Paleontological Resources Monitoring Report was prepared. Paleontologist. 2018

NBC Universal Project, City of Los Angeles, Los Angeles County, CA. LSA Associates prepared and conducted WEAP training for all personnel on the project, as well as archaeological and paleontological resource monitoring for additional developments and improvements to the NBC Universal lot and associated roads. Paleontologist. 2018-2020

LOGAN FREEBERG
GIS Supervisor

EDUCATION

2018 Geographic Information Systems (GIS) Certificate, California State University, Fullerton
2003 B.A., Anthropology, University of California, Santa Barbara

SUMMARY QUALIFICATIONS

Mr. Freeberg has over 18 years of experience in cultural resource management and has extensive experience in field surveying, data recovery, monitoring, and excavation of archaeological and paleontological resources associated with land development projects in the private and public sectors. He has conducted all phases of archaeological work, including fieldwork, laboratory analysis, research, and reporting. Mr. Freeberg also has a strong grounding in conventional field and laboratory methods and is skilled in the use of ArcGIS.

SELECTED PROJECTS

Southern California Edison (SCE) Environmental Clearance On-Call Program, Statewide, CA. Cogstone was contracted to provide on-call cultural resource monitoring services for various SCE projects throughout California. Cogstone has conducted archaeological monitoring, GIS mapping, and prepared technical reports for over 80 task orders. Sub to Cardno. GIS Supervisor. 2019-*ongoing*

Pacific Gas and Electric (PG&E) Master Services Agreement, Statewide, CA. Cogstone was contracted to provide on-call cultural resource monitoring services for various PG&E projects throughout California. Cogstone conducted archaeological monitoring for over 20 task orders. Sub to Cardno. GIS Supervisor. 2019-*ongoing*

Goddard School Project, City of Chino Hills, San Bernardino County, CA. Cogstone produced a paleontological resources mitigation and monitoring program for a proposed 59,129 square foot development consisting of a one-story, 10,587-square foot pre-school/daycare with nine classrooms, fenced play yards and play structures, and a parking lot with 40 stalls. Cogstone put forward mitigation measures that included monitoring for all ground-breaking activities, paleontological resource awareness training for construction personnel, and the completion of a final mitigation report. GIS Supervisor. 2019-2020

Roosevelt Park Regional Stormwater Capture Project, unincorporated area of Florence-Firestone, Los Angeles County, CA. Conducted cultural and paleontological monitoring during all ground disturbing activities in native sediments. This project included the construction of three diversion structures and pipelines. Sub to Environmental Advisors. GIS Supervisor. 2019

Euclid Fueling Station Project, City of Santa Ana, Orange County, CA. This study was conducted to determine the potential impacts to archaeological and paleontological resources during construction activities for a proposed 7-Eleven gas station and convenience store. The proposed project entailed the construction of the convenience store, associated parking, gas station, and underground fuel storage tank. Planned vertical impacts included approximately three to four feet of fill removal over at least some of the site, a trench approximately eight feet deep for utilities, and approximately 12 feet for the new fuel storage tanks. Sub to Sagecrest Environmental. GIS Supervisor and report co-author. 2019

Bell Gardens Water Reservoir Project, City of Bell Gardens, Los Angeles County, CA. Cogstone conducted a cultural and paleontological resources assessment to determine the potential impacts to cultural and paleontological resources during improvements which included a new two-million-gallon reservoir, booster pump station, well to be drilled, and other components. Services included record searches, Sacred Lands File search from the Native American Heritage Commission, and an intensive-pedestrian survey of the 1.7-acre project area. Sub to Infrastructure Engineers. GIS Supervisor. 2019-2020

APPENDIX B. PALEONTOLOGICAL RECORD SEARCH

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

April 14, 2021

Cogstone Resource Management

Attn: Logan Freeberg

re: Paleontological resources for the Irwindale Speculative Concrete Tilt-Up Building Project (Cogstone #5186)

Dear Logan:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the Irwindale Speculative Concrete Tilt-Up Building project area as outlined on the portion of the Baldwin Park USGS topographic quadrangle map that you sent to me via e-mail on April 12, 2021. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County.

Locality Number	Location	Formation	Taxa	Depth
LACM VP 3347	11204 Bluefield; Whittier	La Habra Formation (lacustrine silt with caliche and plant detritus)	Horse (*Equus*)	2 feet bgs
LACM VP 1728	W of intersection of English Rd & Peyton Dr, Chino	Unknown (light brown shale with interbeds of very coarse brown sand; Pleistocene)	Horse (*Equus*), camel (*Camelops*)	15-20 ft bgs
LACM VP 7508	Near intersection of Vellano Club Dr. and Palmero Dr., Oakcrest Development; N of Serrano Canyon	Unknown formation (Pleistocene)	Ground sloth (*Nothrotheriops*); elephant family (Proboscidea); horse (*Equus*)	Unknown
LACM VP 7702	Intersection of 26th St and Atlantic Blvd, Bell Gardens	Unknown Formation (Pleistocene; silt)	Fish (*Gasterosteus*); Snake (Colubridae), Rodents (*Thomomys, Microtus*); Rabbit	30 ft bgs

			(*Sylvilagus*)	
LACM VP 3363	W of Monterey Pass Road in Coyote Pass; E of the Long Beach Freeway & S of the N boundary of Section 32	Unknown Formation (Pleistocene; sand and silt)	Horse (*Equus*)	unknown
LACM VP 1023	Workman & Alhambra Sts	Unknown Formation (Pleistocene)	sabertooth cat (*Smilodon*), horse (*Equus*), deer (*Odocoileus*), Turkey (*Meleagris*)	Unknown (excavations for storn drains)

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search covers only the records of the Natural History Museum of Los Angeles County ("NHMLA"). It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,

Alyssa Bell

Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice

APPENDIX C. NATIVE AMERICAN CONSULTATION

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☑ **CEQA Tribal Consultation List (AB 52)** – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*

☐ **General Plan (SB 18)** - *Per Government Code § 65352.3.*

Local Action Type:

☐ General Plan ☐ General Plan Element ☐ General Plan Amendment

☐ Specific Plan ☐ Specific Plan Amendment ☐ Pre-planning Outreach Activity

Required Information

Project Title: Speculative Concrete Tilt-Up Building

Local Government/Lead Agency: City of Irwindale

Contact Person: John Gust

Street Address: 1518 W. Taft Ave

City: Orange **Zip:** 92865

Phone: 951 315-6033 **Fax:**

Email: jgust@cogstone.com

Specific Area Subject to Proposed Action

County: Los Angeles **City/Community:** Irwindale

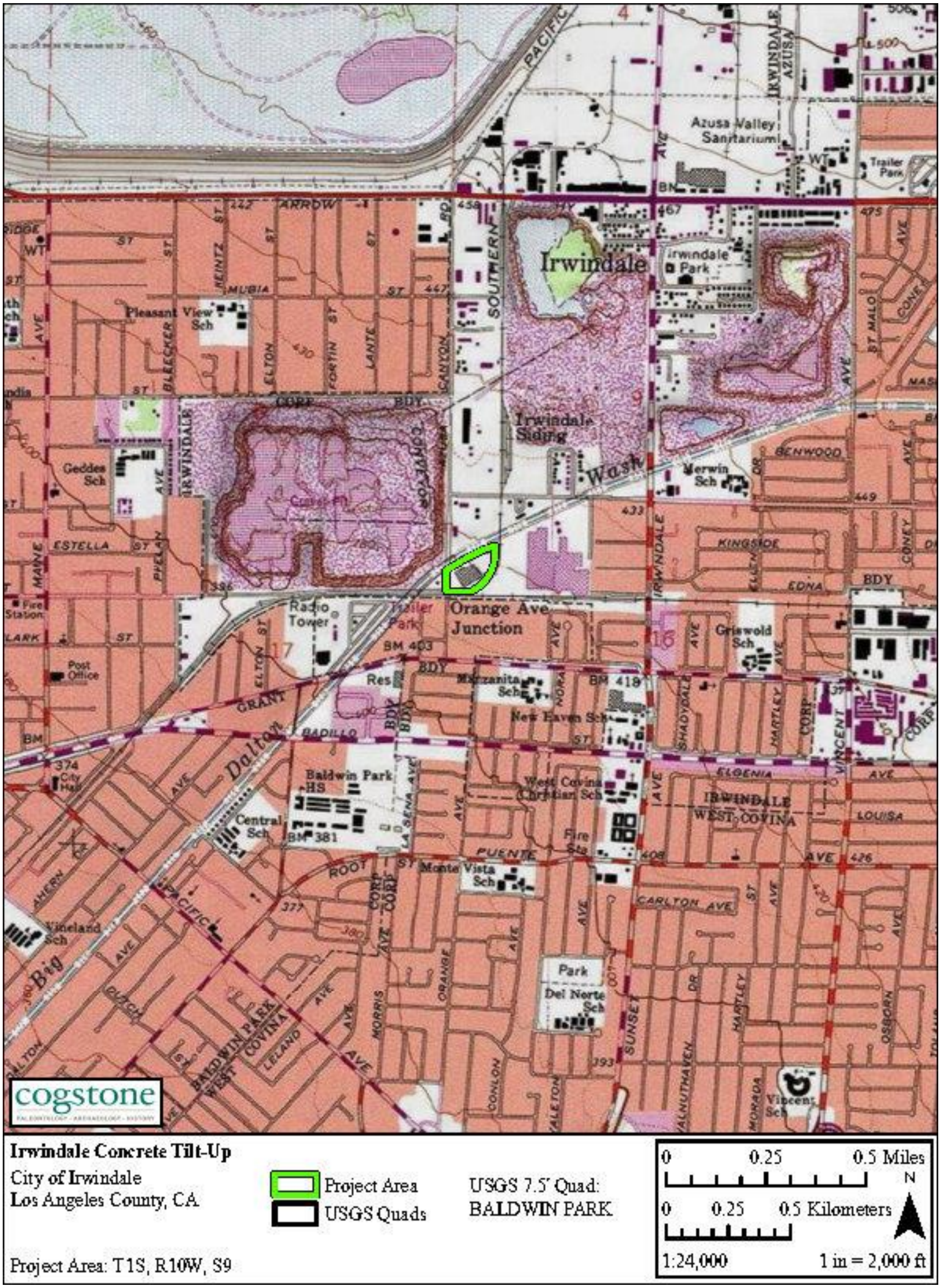
Project Description: The Project involves the demolition of an existing building constructed in 1956 in order to construct a new ~125,475 square foot stand-alone speculative concrete tilt-up warehouse building with an office mezzanine.

Additional Request

☑ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Baldwin Park

Township: 1S **Range:** 10W **Section(s):** 9


Irwindale
Azusa Valley Sanitarium
Irwindale Park
Irwindale Siding
Wash
Orange Ave Junction
Radio Tower
Trailer Park
Pleasant View Sch
Geddes Sch
Merwin Sch
Griswold Sch
Manzanita Sch
New Haven Sch
Baldwin Park HS
Central Sch
West Covina Christian Sch
Monte Vista Sch
Vineland Sch
Park Del Norte Sch
Vincent Sch
Dalton
Big
IRWINDALE
WEST COVINA
BALDWIN PARK
cogstone
Irwindale Concrete Tilt-Up
City of Irwindale
Los Angeles County, CA
Project Area
USGS Quads
USGS 7.5' Quad:
BALDWIN PARK
0 0.25 0.5 Miles
0 0.25 0.5 Kilometers
N
1:24,000
1 in = 2,000 ft
Project Area: T1S, R10W, S9

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

April 27, 2021

John Gust
City of Irwindale

Via Email to: jgust@cogstone.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Speculative Concrete Tilt-Up Building Project, Los Angeles County

Dear Mr. Gust:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This infomation will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Los Angeles County
4/27/2021

Gabrieleno Band of Mission Indians - Kizh Nation Andrew Salas, Chairperson P.O. Box 393 Covina, CA, 91723 Phone: (626) 926 - 4131 admin@gabrielenoindians.org	Gabrieleno
Gabrieleno/Tongva San Gabriel Band of Mission Indians Anthony Morales, Chairperson P.O. Box 693 San Gabriel, CA, 91778 Phone: (626) 483 - 3564 Fax: (626) 286-1262 GTTribalcouncil@aol.com	Gabrieleno
Gabrielino /Tongva Nation Sandonne Goad, Chairperson 106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012 Phone: (951) 807 - 0479 sgoad@gabrielino-tongva.com	Gabrielino
Gabrielino Tongva Indians of California Tribal Council Robert Dorame, Chairperson P.O. Box 490 Bellflower, CA, 90707 Phone: (562) 761 - 6417 Fax: (562) 761-6417 gtongva@gmail.com	Gabrielino
Gabrielino-Tongva Tribe Charles Alvarez, 23454 Vanowen Street West Hills, CA, 91307 Phone: (310) 403 - 6048 roadkingcharles@aol.com	Gabrielino
Santa Rosa Band of Cahuilla Indians Lovina Redner, Tribal Chair P.O. Box 391820 Anza, CA, 92539 Phone: (951) 659 - 2700 Fax: (951) 659-2228 lsaul@santarosa-nsn.gov	Cahuilla
Soboba Band of Luiseno Indians Isaiah Vivanco, Chairperson P. O. Box 487 San Jacinto, CA, 92581 Phone: (951) 654 - 5544 Fax: (951) 654-4198 ivivanco@soboba-nsn.gov	Cahuilla Luiseno

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Speculative Concrete Tilt-Up Building Project, Los Angeles County.

PROJ-2021-002266 | 04/27/2021 10:04 AM | 1 of 1

City of IRWINDALE

May 6, 2021

[FIRST LAST]
[TRIBE]
[TITLE/ROLE]
[ADDRESS, STREET]
[CITY, CA, ZIP]

RE: CEQA Consultation Request for the 4416 Azusa Canyon Road Project and Initial Study/Mitigated Negative Declaration for the City of Irwindale, Los Angeles County, California.

Dear [TITLE & LAST NAME]:

The City of Irwindale (City) is preparing an Initial Study for the proposed warehouse project (Project), located at 4416 Azusa Canyon Road, Irwindale, Los Angeles County, California (Figure 1) (Assessor Parcel Number (APN) 8417-004-006). The Project involves the demolition of an existing building constructed in 1956 in order to construct a new, approximately 125,475 square foot, stand-alone, speculative concrete tilt-up warehouse building with an office mezzanine (Figure 2). This Project will comply with California Environmental Quality Act (CEQA) regulations. The City will be the lead CEQA Agency.

We are contacting you because the [TRIBE] requested to be notified and provided information, under the provisions of the CEQA (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as AB 52, regarding projects within the City's jurisdiction and within the traditional territory of the [TRIBE]. Please consider this letter and preliminary Project information as the formal notification of the proposed Project. The City is requesting to consult with the [TRIBE] in order to identify tribal cultural resources that may be impacted by the proposed Project. The point of contact for the City is below.

City of Irwindale Point of Contact Information	
Name/Title:	Brandi Jones Senior Planner
Address:	City of Irwindale 5050 Irwindale Avenue
City:	Irwindale, CA 91706
Tel:	(626)430-2260
E-Mail:	BJones@IrwindaleCA.gov

5050 NORTH IRWINDALE AVE., IRWINDALE, CA 91706 | PHONE: (626) 430-2200 FACSIMILE: (626) 430-4209

Cogstone Resource Management, Inc. (Cogstone) has been retained to assist the City with a combined cultural and paleontological resources assessment report. The Native American Heritage Commission (NAHC) was contacted on April 13, 2021 to perform a search of the Sacred Lands File. The NAHC responded on April 27, 2021 and reported with a negative result indicating that no known Native American sacred sites and/or heritage resources are located within the Project area or the immediate vicinity.

Cogstone requested a record search of the Project Area and a half-mile radius from the South Central Coastal Information Center (SCCIC) located at the California State University, Fullerton Campus on April 9, 2021 and the result are pending. When available the record search results will be shared upon request.

An intensive pedestrian survey was conducted on April 23, 2021 and no archaeological resources were identified. The 1956 building was recorded as a built environment resource.

The City would appreciate receiving any comments, issues and/or concerns relating to cultural resources, sacred lands, and tribal cultural resources that you may have within the Project area. All information provided will be kept confidential.

Please respond within 30 days, pursuant to PRC 21080.3.1(d), if you would like to consult on this Project. If you have any questions or concerns with the Project, please do not hesitant to contact Brandi Jones at the City at the address above or via email BJones@IrwindaleCA.gov or phone (626) 430-2260.

Thank you for your assistance.

Brandi Jones

Attachments: Figure 1. Project Vicinity Map
Figure 2. Project Location Map
Figure 3. Aerial View of Project Site
Figure 4. Assessor's Parcel Map

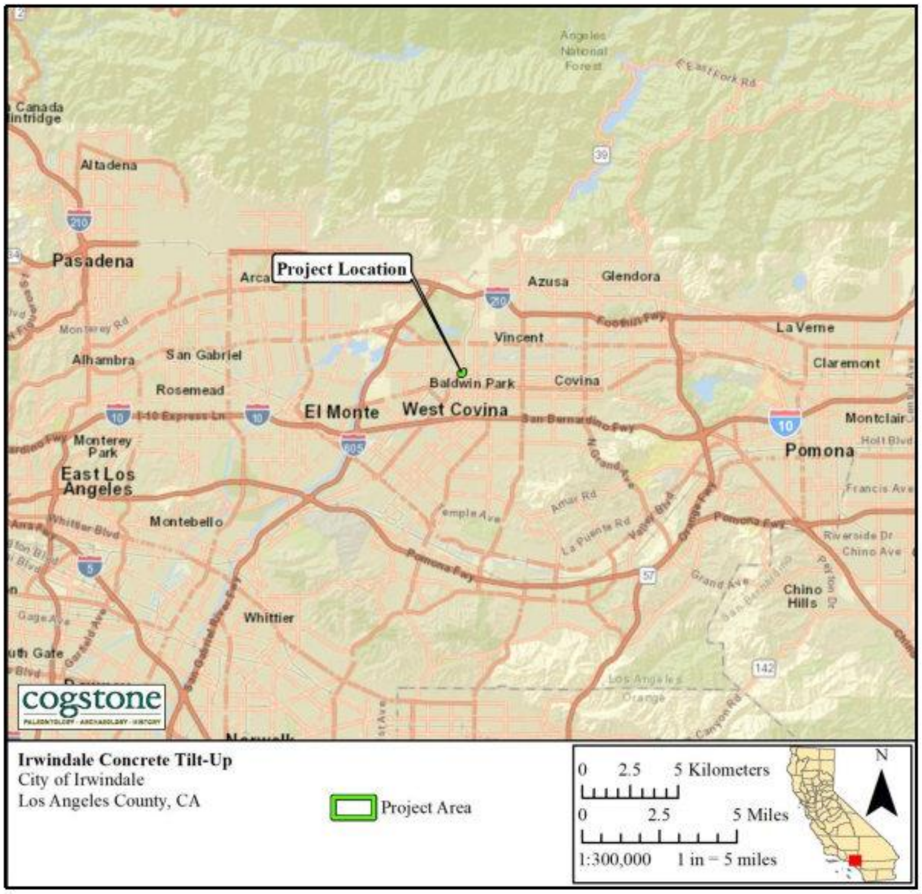


Figure 1. Project vicinity map

3

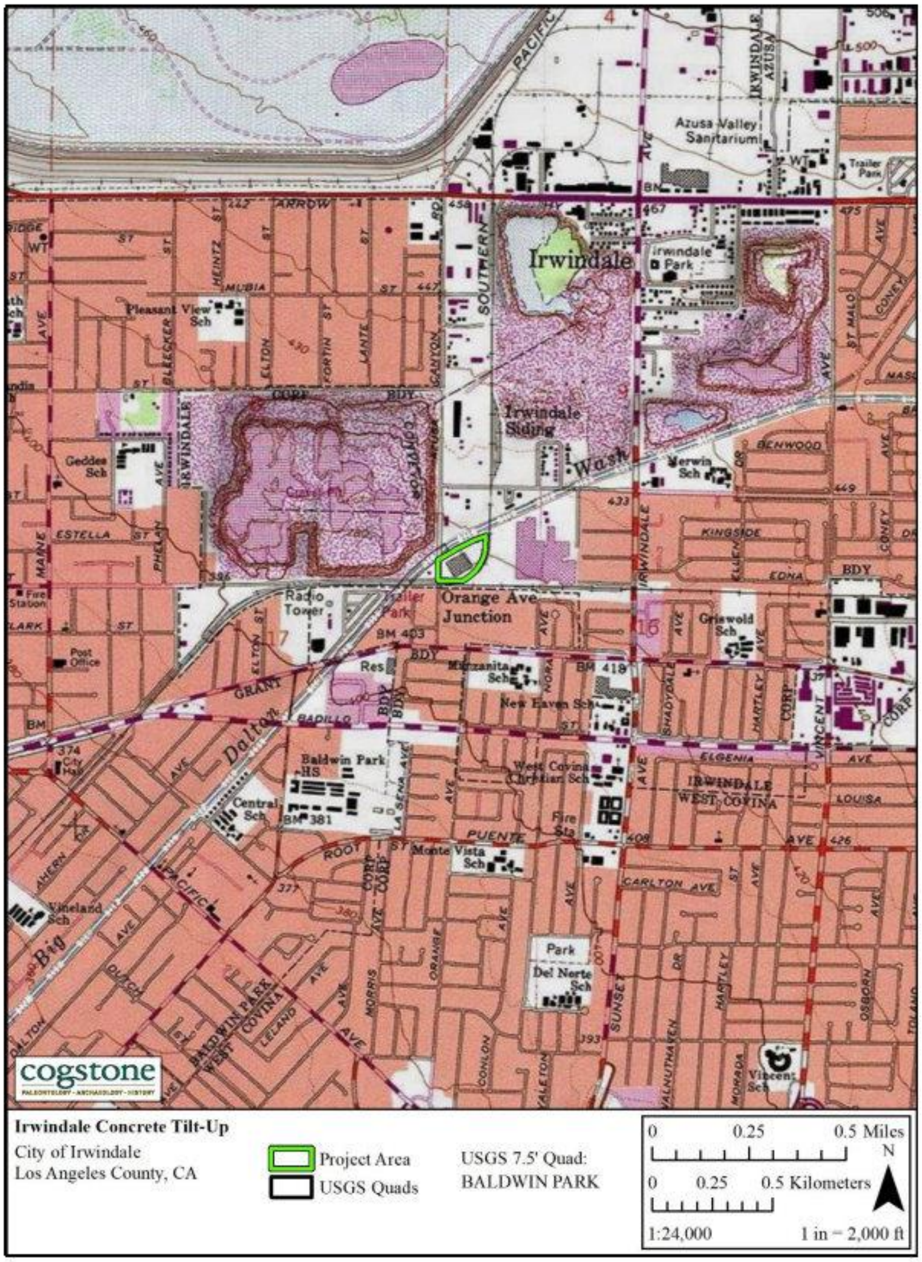


Figure 2. Project location map

4

Figure 3. Project aerial map

5

Figure 4. Assessor's parcel map

6

Native American Group	**First contact attempt and method**	**Second contact attempt and method**	**Third contact attempt and method**	**Replies received and date**	**Comments**
Gabrielino Tongva Indians of California Tribal Council - Robert Dorame, Chairperson	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Telephone call, 6/10/2021, left voicemail message	On 6/17/2021, Chairperson Dorame contacted via telephone call and said that the Tribe would like to be notified if prehistoric materials are found and would like to be notified if burial remains are found, even if his group is not designated Most Likely Descendent. If burial remains are found the Tribe wants to engage in formal consultation.	
Gabrielino Tongva Tribal Council - Sandonne Goad, Chairperson	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Telephone call, 6/10/2021, left voicemail message	No response as of 6/23/2021	
Gabrielino-Tongva Tribe - Charles Alvarez, Chairperson	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Telephone call, 6/10/2021, voicemail box was full	No response as of 6/23/2021	
Gabrieleño Band of Mission Indians - Kizh Nation - Andrew Salas, Chairperson	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Telephone call, 6/10/2021, spoke with Chairperson Salas	On 6/10/2021, Chairperson Salas indicated during telephone call that he was going to follow up with the City of Irwindale.	
Gabrielino/Tongva San Gabriel Band of Mission Indians - Anthony Morales, Chairperson	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Telephone call, 6/10/2021, left voicemail message	No response as of 6/23/2021	
Santa Rosa Band of Cahuilla Indians - Lovina Redner, Tribal Chair	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Telephone call, 6/10/2021	On 6/10/2021, representative said during telephone call that the Tribe did not have any comments	

Native American Group	First contact attempt and method	Second contact attempt and method	Third contact attempt and method	Replies received and date	Comments
Soboba Band of Mission Indians – Isaiah Vivanco, Chairperson	Certified USPS mail letter, 5/6/2021	Electronic mail, 6/2/2021	Phone call, 6/10/2021, provided name of current chairperson, Isaiah Vivanco	No response as of 6/23/2021	Request letter first sent to previous chairperson. Letter addressed to Chairperson Vivanco sent by electronic mail on 6/10/2021. Previous electronic mail contact attempt of 6/2/2021 sent to Joseph Ontiveros in the Cultural Resources Department.

[4416 Azusa Canyon Road 5186]
Tribal Consultation Log

Conversations With:			
Tribe	Gabrielino Tongva Indians of California Tribal Council		
Name	Robert Dorame		
Title	Chairperson		
Address			
Phone Number (Office)		**Cell**	
Email Address			

Date: 6/17/2021	**Time: 11:53am**	**3rd Attempt ☐ Email ☐ US Mail ☒ Phone Call**	**By: John Gust**
Chairperson Dorame contacted John Gust via telephone call returning his call of 6/10/2021 and said that the Tribe would like to be notified if prehistoric materials are found and would like to be notified if burial remains are found even if his group is not designated Most Likely Descendent. If burial remains are found the Tribe wants to engage in formal consultation.			

[4416 Azusa Canyon Road 5186]
Tribal Consultation Log

Conversations With:			
Tribe	Gabrieleno Band of Mission Indians - Kizh Nation		
Name	Andrew Salas		
Title	Chairperson		
Address			
Phone Number (Office)		**Cell**	
Email Address			

Date:	**Time: 10:00 am (approx.)**	**3rd Attempt ❒ Email ❒ US Mail ☒ Phone Call**	**By: John Gust**
Chairperson Salas indicated that he was going to follow up with the City of Irwindale.			

[4416 Azusa Canyon Road 5186]
Tribal Consultation Log

Conversations With:			
Tribe	Santa Rosa Band of Cahuilla Indians		
Name	Representative in Tribal Office		
Title			
Address			
Phone Number (Office)		**Cell**	
Email Address			

Date: 6/10/2021	**Time: 10:00 am (approx.)**	**3rd Attempt ☐ Email ☐ US Mail ☒ Phone Call**	**By: John Gust**
Tribal representative who answered call said that the Tribe did not have any comments on the Project.			

APPENDIX D. BUILT ENVIRONMENT SURVEY PHOTOS

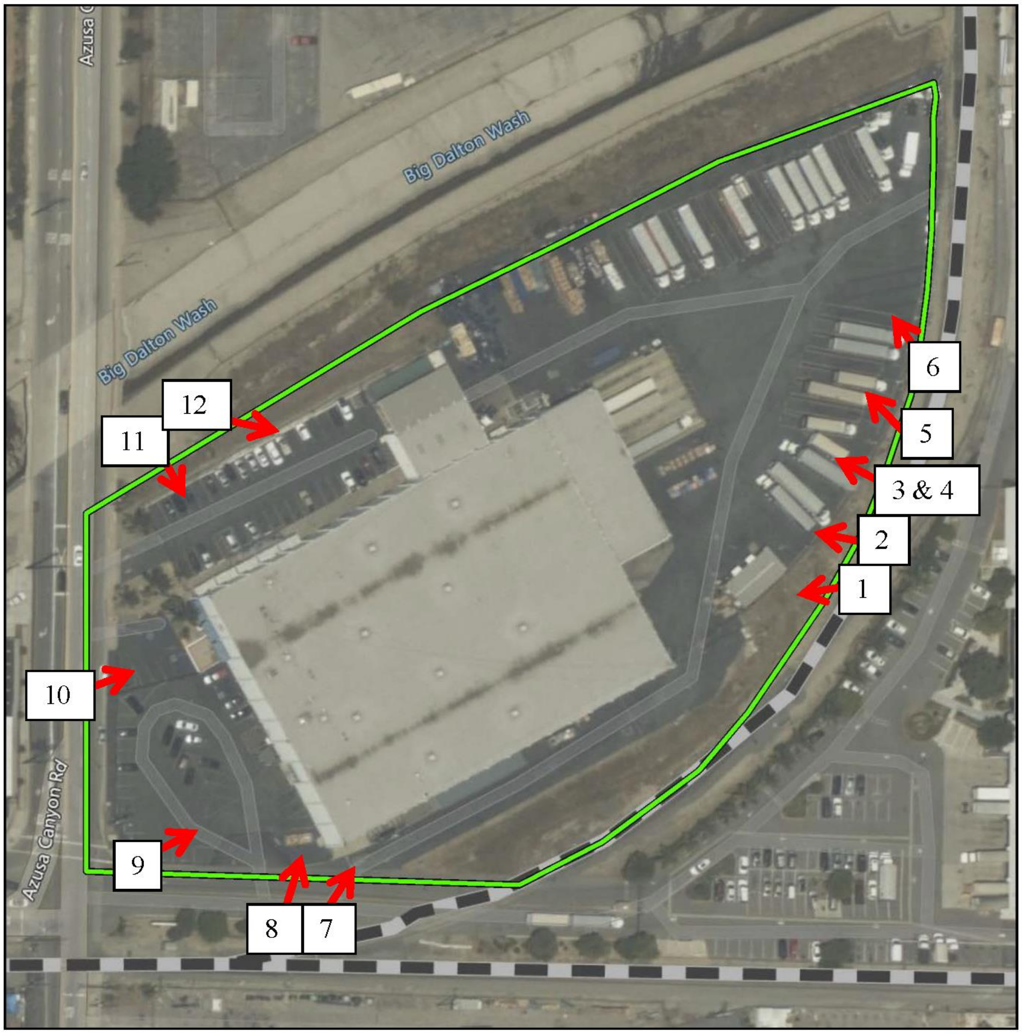


Figure D-1. Photo Key

1. Northeast elevation, facing southwest

2. Northeast elevation, facing west

3. Loading dock ramp at northeast elevation, facing northwest

4. Paved parking area adjacent to northeast elevation, facing northwest

5. Overview of parking area on eastern side of property, facing north

6. Overview of parking area on eastern side of property, facing northeast

Figure D-2. Photo log

7. Southeast elevation, facing northeast

8. Southwest elevation (left), facing north

9. Southwest façade, facing northeast

10. Southwest facade, main entrance, facing northeast

11. Northwest elevation, facing southeast

12.Northwest elevation, facing east

Figure D-3. Photo log

APPENDIX E. PALEONTOLOGICAL SENSITIVITY RANKING CRITERIA

PFYC Description Summary (BLM 2016)	**PFYC Rank**
Very Low. The occurrence of significant fossils is non-existent or extremely rare. Includes igneous (excluding air-fall and reworked volcanic ash units), metamorphic, or Precambrian rocks. Assessment or mitigation of paleontological resources is usually unnecessary except in very rare or isolated circumstances that result in the unanticipated presence of fossils.	1
Low. Sedimentary geologic units that are unlikely to contain vertebrate or scientifically significant nonvertebrate fossils. Includes rock units less than 10,000 years old and sediments with significant physical and chemical changes (e.g., diagenetic alteration) which decrease the potential for fossil preservation. Assessment or mitigation of paleontological resources is not likely to be necessary.	2
Moderate. Units are known to contain vertebrate or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered and/or of low abundance. Common invertebrate or plant fossils may be found and opportunities may exist for casual collecting. Paleontological mitigation strategies will be based on the nature of the proposed activity. Management considerations cover a broad range of options that may include record searches, pre-disturbance surveys, monitoring, mitigation, or avoidance. Surface-disturbing activities may require assessment by a qualified paleontologist to determine whether significant paleontological resources occur in the area of a proposed action, and whether the action could affect the paleontological resources.	3
High. Geologic units containing a high occurrence of significant fossils. Fossils must be abundant per locality. Vertebrates or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. Mitigation plans must consider the nature of the proposed disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access that could result in looting. Detailed field assessment is normally required and on-site monitoring or spot-checking may be necessary during land disturbing activities. In some cases avoidance of known paleontological resources may be necessary.	4
Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate or scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. Paleontological resources are highly susceptible to adverse impacts from surface disturbing activities. Paleontological mitigation may be necessary before or during surface disturbing activities. The area should be assessed prior to land tenure adjustments. Pre-work surveys are usually needed and on-site monitoring may be necessary during land use activities. Avoidance or resource preservation through controlled access, designation of areas of avoidance, or special management designations should be considered.	5
Unknown. An assignment of "Unknown" may indicate the unit or area is poorly studied and field studies are needed to verify the presence or absence of paleontological resources. The unit may exhibit features or preservational conditions that suggest significant fossils could be present, but little information about the actual unit or area is known. Literature searches or consultation with professional colleagues may allow an unknown unit to be provisionally assigned to another Class, but the geological unit should be formally assigned to a Class after adequate survey and research is performed to make an informed determination.	U
Water or Ice. Typically used only for areas which have been covered thus preventing an examination of the underlying geology.	W, I

APPENDIX F. DPR FORMS

Appendix D Geotechnical Investigation and Results of Infiltration Testing

Appendix

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GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE BUILDING

4116 Azusa Canyon Road
Irwindale, California
for
Rexford Industrial

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

February 14, 2020

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Rexford Industrial
11620 Wilshire Boulevard, 10th Floor
Los Angeles, California 90025

Attention: Mr. Ricardo Rivas
Construction Manager

Project No.: **20G105-1**

Subject: **Geotechnical Investigation**
Proposed Warehouse
4416 Azusa Canyon Road
Irwindale, California

Gentlemen:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Daniel W. Nielsen, RCE 77915
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER
DANIEL W. NIELSEN
No. 77915
CIVIL
STATE OF CALIFORNIA

Robert G. Trazo, GE 2655
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
ROBERT TRAZO
No. 2655
GEOTECHNICAL
STATE OF CALIFORNIA

Distribution: (1) Addressee

22885 Savi Ranch Parkway ▾ Suite E ▾ Yorba Linda ▾ California ▾ 92887
voice: (714) 685-1115 ▾ fax: (714) 685-1118 ▾ www.socalgeo.com

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Site Preparation

- Demolition of the existing structures and pavements will be necessary in order to facilitate the construction of the proposed development. Demolition should include all foundations, floor slabs, utilities and any other subsurface improvements that will not remain in place with the new development. Debris resultant from demolition should be disposed of offsite. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2-inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be crushed and made into CMB, if desired.
- Initial site stripping should include the removal of any surficial vegetation. Based on conditions encountered at the time of the subsurface exploration, stripping of a few trees and some vegetation will be necessary along the perimeter of the site. Site stripping should remove any tree root masses in their entirety. These materials should be disposed of offsite.
- The near surface soils encountered at the trench locations generally consist of medium dense undocumented fill soils underlain by dense native alluvial soils consisting of silty sands and well-graded gravelly sands with significant cobble and boulder content. The undocumented fill soils extend to depths of 3 to 7½± feet at the trench locations.
- Remedial grading is recommended within the proposed building area, in order to provide uniform support conditions for the new foundations and the floor slab of the proposed structure and to remove undocumented fill soils and any soils disturbed during demolition. We recommend that the proposed building pad area be overexcavated to a depth of at least 3 feet below existing grade and to a depth of at least 3 feet below proposed pad grade. The overexcavation should also extend to a sufficient depth to remove all of the undocumented artificial fill materials within the building pad area. Overexcavation within the foundation areas is recommended to extend to a depth of at least 2 feet below proposed foundation bearing grade.
- As discussed above, the native alluvial soils possess significant amounts of oversized materials, including cobbles and boulders. Where grading will require excavation into these materials, consideration should be given to using selective grading techniques to remove the cobbles and/or boulders from these soils prior to reuse as fill. Recommendations regarding selective grading and handling of oversized materials are provided in Section 6.3 and Appendix D of this report.
- After overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting soils should be scarified and thoroughly flooded to achieve a moisture content of 0 to 4 percent above optimum moisture, to a depth of at least 24 inches. The overexcavation subgrade soils should then be recompacted under the observation of the geotechnical engineer. The previously excavated soils may then be replaced as structural fill, compacted to 90 percent of the ASTM D-1557 maximum dry density.

- The new parking area subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Spread footing foundations, supported in newly placed structural fill soils.
- Maximum, net allowable soil bearing pressure: 3,000 lbs/ft^2.
- Reinforcement consisting of at least two (2) No. 5 rebars (1 top and 1 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

Building Floor Slabs

- Conventional Slab-on-Grade, at least 6 inches thick.
- Modulus of Subgrade Reaction: k = 200 psi/in.
- Reinforcement is not expected to be necessary for geotechnical considerations.
- The actual thickness and reinforcement of the floor slabs should be determined by the structural engineer.

Pavements

ASPHALT PAVEMENTS (R = 60)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	3	3	3	3	4
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 5.0 & 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 19P370, dated September 25, 2019. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located at the northeast corner of Azusa Canyon Road and Los Angeles Street in Irwindale, California. The site is bounded to the north by the Big Dalton Wash, to the west by Azusa Canyon Road, to the south by Los Angeles Street, and to the southeast and east by an existing railroad easement. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of an irregular-shaped parcel, 5.89± acres in size. The site is presently developed with one warehouse, 64,535± ft² in size, in the western half of the site. The warehouse is currently occupied by Pepsi Bottling Group. The building is a single-story structure of concrete tilt-up construction and is assumed to be supported on conventional shallow foundations with a concrete slab-on-grade floor. A loading dock is located along a portion of the northeast building wall. A modular building, about 1,000 ± ft² in size is present in the east-central portion of the site. This modular building appears to be supported directly on the pavements. The buildings are surrounded by asphaltic concrete pavements in the parking and drive areas, Portland cement concrete pavements in the loading dock areas, and concrete flatwork in limited areas throughout the site. The southeastern area of the site is vacant and undeveloped. The ground surface cover in this area consists of exposed soil with moderate to extensive native grass and weed growth.

Detailed topographic information was not available at the time of this report. Based on visual observations made at the time of the subsurface investigation and from elevation data obtained from Google Earth, the overall site topography generally slopes downward to the southwest at a gradient of 1 to 2± percent.

3.2 Proposed Development

A site plan, prepared by GAA Architects, has been provided to our office by the client. Based on this plan, a new warehouse, 130,540± ft² in size, will be constructed in the central area of the site. Dock-high doors will be constructed along a portion of the south building wall. The building will be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, concrete flatwork and landscape planters throughout.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, typically supported on conventional shallow foundations with a concrete slab-on-grade floor. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 3 to 5 kips per linear foot, respectively.

Grading plans for the proposed development were not available at the time of this report. The proposed development is not expected to include any significant amounts of below-grade construction such as basements or crawl spaces. Based on the existing topography, and assuming a relatively balanced site, cuts and fills of 2 to 3± feet are expected to be necessary to achieve the proposed site grades.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of four (4) trenches excavated to depths of 6 to 9± feet below the existing site grades. All of the trenches were logged during excavation by a member of our staff.

The trenches were excavated using a backhoe with a 24-inch-wide bucket. Representative bulk and soil samples were taken during excavation. The bulk samples were collected in plastic bags to retain their original moisture content. The bulk samples were then sealed and transported to our laboratory.

The approximate locations of the trenches are indicated on the Trench Location Plan, included as Plate 2 in Appendix A of this report. The Trench Logs, which illustrate the conditions encountered at the trench locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Pavements

Asphaltic concrete pavements were encountered at the ground surface at all four of the trench locations. Trench No. T-1 encountered 4± inches of asphaltic concrete with no discernable layer of aggregate base. The pavement sections at Trench Nos. T-2 through T-4, inclusive, consist of 1½ to 3± inches of asphaltic concrete, underlain by 3 to 7± inches of aggregate base.

Artificial Fill

Artificial fill soils were encountered beneath the pavements at all of the trench locations, extending to depths of 3 to 7½± feet below the existing site grades. The artificial fill soils generally consist of medium dense fine sands, silty fine sands, and fine sands intermixed with silty fine sands. These soils contain trace amounts of medium to coarse sand, fine to coarse gravel, and occasional cobbles. At Trench Nos. T-1 and T-4 the fill soils contain occasional to some of clay nodules. The fill soils possess a disturbed appearance and occasional artificial debris content, such as glass fragments, resulting in their classification as artificial fill.

Alluvium

Native alluvium was encountered beneath the artificial fill soils at all of the trench locations, extending to at least the maximum depth explored of 9± feet below existing site grades. The alluvial soils generally consist of dense gravelly well-graded sands, with some cobbles and occasional boulders.

Groundwater

Groundwater was not encountered at any of the trenches. Based on the lack of any water within the trenches, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 9± feet below existing site grades, at the time of the subsurface investigation.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the historic groundwater depths in this area is CGS Open File Report 98-13, the Seismic Hazard Evaluation of the Baldwin Park Quadrangle which indicates that the historic high groundwater level for the site is greater than 130 feet below the ground surface. More recent water level data for a well located near the subject site was obtained from the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. The nearest monitoring well in this database is located approximately 300 feet west of the site. Water level readings within this monitoring well indicate a groundwater level of 194± feet below the ground surface in January 2013.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Trench Logs and are periodically referenced throughout this report.

Moisture Content

The moisture content has been determined for selected representative samples. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Trench Logs.

Maximum Dry Density and Optimum Moisture Content

One representative bulk sample was tested for its maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557 and are presented on Plate C-1 in Appendix C of this report. These tests are generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Soluble Sulfates

One representative samples of the near-surface soils was submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below and are discussed further in a subsequent section of this report.

Sample Identification	**Soluble Sulfates (%)**	**Severity**
T-3 @ 0 to 5 feet	<0.001	Not Applicable (S0)

Corrosivity Testing

A representative bulk sample of the near-surface soils was submitted to a subcontracted analytical laboratory for determination of electrical resistivity, pH, and chloride concentrations. The resistivity of the soils is a measure of their potential to attack buried metal improvements such as utility lines. The results of the resistivity and pH testing are presented below:

Sample Identification	**Resistivity** (ohm-cm)	**pH**	**Chlorides** (mg/kg)
T-3 @ 0 to 5 feet	14,800	8.0	0.6

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structures should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low.

Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The tables below were created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structure at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	1.659
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.615
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.659
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	1.046
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.106
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.697

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1

obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed buildings at this site.

Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The Seismic Hazards Map for the Baldwin Park, California 7.5 Minute Quadrangle, published by the California Geological Survey (CGS) indicates that the subject site is not located within a designated liquefaction hazard zone. In addition, the subsurface conditions encountered at the site are not considered to be conducive to liquefaction. Based on the mapping performed by CGS and the conditions encountered at the trench locations, liquefaction is not considered to be a significant design concern for this project.

6.2 Geotechnical Design Considerations

General

Artificial fill soils were encountered beneath the pavements at all of the trench locations, extending to depths of 3 to 7½± feet below the existing site grades. No documentation regarding the placement or compaction of these fill soils is known to exist. Based on these characteristics, the existing fill materials are considered to represent undocumented fill. The fill soils are generally underlain by dense well-graded sands and gravelly sands. The soils encountered at the trench locations generally possess significant over-sized material including extensive cobble content and occasional boulders throughout the depths explored. Some remedial grading is considered warranted within the proposed building area to provide more uniform support characteristics beneath the proposed slab and foundations, and to help facilitate construction activities by removing some of the over-sized materials.

Demolition of the existing pavements and structures is also expected to cause significant disturbance to the near surface soils. Any soils disturbed during demolition should also be removed prior to the placement of structural fill soils. The excavated soils may be moisture conditioned and recompacted as structural fill.

Most of the near-surface soils encountered at the trench locations possess occasional to extensive cobble content and occasional boulders.. Recommendations for the handling and placement of oversized materials are presented in Section 6.3 of this report.

Los Angeles County Section 111 Statement

Based on the results of our geotechnical analysis, the proposed development will be safe with regard to landslides, settlement and/or slippage. In addition, the proposed development will not adversely affect the geologic stability of the adjacent properties. This finding is in accordance with Section 111 of the Los Angeles County Building Code.

Settlement

The recommended remedial grading will remove the existing undocumented fill soils and a portion of the near-surface native alluvium soils and replace these materials as compacted structural fill. The native alluvium soils that will remain in place below the recommended depth of overexcavation will not be subject to significant stress increases from the foundations of the new structures. Therefore, following completion of the recommended grading, post-construction settlements are expected to be within tolerable limits.

Corrosion Potential

The results of the electrical resistivity and pH testing indicate that a sample of the on-site soils possesses a resistivity value of 14,800 ohm-cm, and pH values ranging from 8.0. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity and pH are two of the five factors that enter into the evaluation procedure. Redox potential, relative soil moisture content and sulfides are also included. Although sulfide testing was not part of the scope of services for this project, we have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH and moisture content. Based on these factors, and utilizing the DIPRA procedure, the on-site soils are not considered to be corrosive to ductile iron pipe. Therefore, polyethylene protection is expected to be required for cast iron or ductile iron pipes. It should be noted that SCG does not practice in the field of corrosion engineering, and therefore, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.

Based on American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary, reinforced concrete that is exposed to external sources of chlorides requires corrosion protection for the steel reinforcement contained within the concrete. ACI 318 defines concrete exposed to moisture and an external source of chlorides as "severe" or exposure category C2. ACI 318 does not clearly define a specific chloride concentration at which contact with the adjacent soil will constitute a "C2" or severe exposure. However, the Caltrans Memo to Designers 10-5, Protection of Reinforcement Against Corrosion Due to Chlorides, Acids and Sulfates, dated June 2010, indicates that soils possessing chloride concentrations greater than 500 mg/kg are considered to be corrosive to reinforced concrete. The results of the laboratory testing indicate chloride concentrations of less than 1 ppm. Although the soils contain trace chloride content, we do not expect that the chloride concentrations of the tested soils are high enough to constitute a "severe" or C2 chloride exposure, based on the Caltrans document referenced above. Therefore, a chloride exposure category of C1 is considered appropriate for this site. Since SCG does not practice in the area of corrosion engineering, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.

Expansion

The near-surface soils generally consist of silty sands and gravelly sands with only trace amounts of clay nodules present in the fill soils. These materials have been visually classified as very low to non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for this site.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected samples of the on-site soils to correspond to Class S0 with respect to the American Concrete Institute (ACI) Publication 318-14 Building Code Requirements for Structural Concrete and Commentary, Section 4.3. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Shrinkage/Subsidence

Removal and recompaction of the near surface fill soils is estimated to result in an average shrinkage of 4 to 8 percent. Recompaction of the native alluvium is expected to result in an average shrinkage of 0 to 5 percent. It should be noted that the potential shrinkage estimate is based on our experience with similar projects at nearby sites. It was not practical to obtain undisturbed samples based on the gravel, cobble, and boulder content of the onsite soils. Therefore, the actual amount of shrinkage could vary considerable from these estimates. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1± feet. This estimate may be used for grading in areas that are underlain by native alluvial soils.

These estimates are based on previous experience and the subsurface conditions encountered at the trench locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

No grading or foundation plans were available at the time of this report. It is therefore recommended that we be provided with copies of the preliminary plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the trench locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Demolition of the existing structures and pavements will be necessary in order to facilitate the construction of the proposed development. Demolition should include all foundations, floor slabs, utilities and any other subsurface improvements that will not remain in place with the new development. Debris resultant from demolition should be disposed of offsite. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2-inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be crushed and made into CMB, if desired.

Initial site stripping should include removal of any surficial vegetation. Based on conditions encountered at the time of the subsurface exploration, stripping of some trees will be necessary along the perimeter of the site. Site stripping should remove any root masses in their entirety. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building pad area in order to remove the existing undocumented fill soils, a portion of the near-surface alluvium, and all soils disturbed during demolition. Based on conditions encountered at the trench locations, the existing soils within the proposed building area are recommended to be overexcavated to a depth of at least 3 feet below existing grade and to a depth of at least 3 feet below proposed building pad subgrade elevations, whichever is greater. However, overexcavation to greater depths will be required to remove the undocumented fill soils, which extend to depths of 3 to 7½± at the trench locations. Additional overexcavation should also be performed within the influence zones of the new foundations, to provide for a new layer of compacted structural fill extending to a depth of at least 2 foot below proposed bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building perimeter, and to an extent equal to the depth of fill below the new foundations. If the proposed structure will incorporate any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the building area should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose, or otherwise unstable soils that must be removed. Some localized areas of deeper excavation may be required if loose, porous, or low density native soils are encountered at the base of the overexcavation.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, and thoroughly flooded to raise the moisture content of the underlying soils to at least 0 to 4 percent above optimum moisture content, extending to a depth of at least 24 inches. The moisture conditioning of the overexcavation subgrade soils should be verified by the geotechnical engineer. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Parking Areas

Based on economic considerations, overexcavation of the existing soils in the new parking and drive areas is not considered warranted, with the exception of areas where lower strength, or unstable soils are identified by the geotechnical engineer during grading. Subgrade preparation in the new parking and drive areas should initially consist of removal of all soils disturbed during stripping and demolition operations.

The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. Any such materials should be removed to a level of firm and unyielding soil. The exposed subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength surficial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking area assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of the existing fill soils in the parking areas. As such, settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the removed soils replaced as compacted structural fill.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining and site walls should be overexcavated to a depth of 2 feet below foundation bearing grade and replaced as compacted structural fill as discussed above for the proposed building pad. Any undocumented fill soils within any of these foundation areas should be removed in their entirety. Erection pads for concrete tilt-up walls are considered part of the foundation system, and the recommended overexcavation should also be performed beneath erection pads. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning, and recompacting the upper 12 inches of exposed subgrade soils, as discussed for the building area. The previously excavated soils may then be replaced as compacted structural fill.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 0 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the city of Irwindale and county of Los Angeles.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Selective Grading and Oversized Material Placement

The native alluvial soils possess significant cobble and boulder content. It is expected that large scrapers (Caterpillar 657 or equivalent) will be adequate to move the cobble containing soils as well the soils containing smaller boulders. It may be necessary to move larger boulders individually, and place them as oversized materials in accordance with the Grading Guide Specifications, in Appendix D of this report.

Since the proposed grading will require excavation of cobble and boulder containing soils, it may be desirable to selectively grade the proposed building pad area. The presence of particles greater than 3 inches in diameter within the upper 1 to 3 feet of the building pad subgrade will impact the utility and foundation excavations. Depending on the depths of fills required within the proposed parking areas, it may be feasible to sort the on-site soils, placing the materials greater than 3 inches in diameter within the lower depths of the fills, and limiting the upper 1 to 3 feet of soils to materials less than 3 inches in size. Oversized materials could also be placed within the lower depths of the recommended overexcavations. In order to achieve this grading, it would likely be necessary to use rock buckets and/or rock sieves to separate the oversized materials from the remaining soil. Although such selective grading will facilitate further construction activities, it is not considered mandatory and a suitable subgrade could be achieved without such extensive sorting. However, in any case, it is recommended that all materials greater than 6 inches in size be excluded from the upper 1 foot of the surface of any compacted fills.

The placement of any oversized materials should be performed in accordance with the Grading Guide Specifications included in Appendix D of this report. If disposal of oversized materials is required, rock blankets or windrows should be used and such areas should be observed during construction and placement by a representative of the geotechnical engineer.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. It is recommended that materials in excess of 6 inches in size not be used for utility trench backfill. Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the city of Irwindale and the county of Los Angeles. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The near-surface soils at this site generally consist of well-graded silty sands and gravely sands. These materials may be subject to caving within shallow excavations. Where caving occurs within shallow excavations, flattened excavation slopes may be sufficient to provide excavation stability. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. Temporary excavation slopes should be no steeper than 2h:1v. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Groundwater

Based on our research, the historic high ground water level is considered to be greater than 130± feet below the ground surface. Therefore, groundwater is not expected to impact grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by new structural fill soils used to replace existing undocumented fill and a portion of the near-surface aluvium. These structural fill soils are expected to extend to depths of at least 2 feet below proposed foundation bearing grade, underlain by 1± foot of additional soil that has been densified and moisture conditioned in place. Based on this subsurface profile, the proposed structure may be supported on conventional shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 3,000 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Two (2) No. 5 rebars (1 top and 1 bottom).
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.
- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressure presented above may be increased by one-third when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on geotechnical considerations; additional reinforcement may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 0 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft^3
- Friction Coefficient: 0.32

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill. The maximum allowable passive pressure is 3,000 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slabs should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the new building may be constructed as a conventional slab-on-grade supported on newly placed structural fill soils, extending to a depth of at least 3 feet below the proposed pad grade. Based on geotechnical considerations, the floor slabs may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: k = 200 psi/in

- Minimum slab reinforcement: Reinforcement is not expected to be required for geotechnical conditions. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used the minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire area of the slab that such moisture sensitive floor coverings are anticipated. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview.

- Moisture condition the floor slab subgrade soils to 0 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Retaining Wall Design and Construction

Although not indicated on the site plan, some retaining walls may be required to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the conditions encountered at the trench locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters assuming the use of on-site soils for retaining wall backfill. The near surface soils generally consist of silty sands and gravelly sands. Based on their classifications, the near surface soils are expected to possess a friction angle of at least 32 degrees when compacted to 90 percent of the ASTM-1557 maximum dry density.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type On-Site Soils
Internal Friction Angle (ϕ)		32°
Unit Weight		130 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	40 lbs/ft^3
	Active Condition (2h:1v backfill)	61 lbs/ft^3
	At-Rest Condition (level backfill)	61 lbs/ft^3

The walls should be designed using a soil-footing coefficient of friction of 0.32 and an equivalent passive pressure of 300 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed structural fill. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

On-site soils may be used to backfill the retaining walls. However, all backfill material placed within 3 feet of the back-wall face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls be used. If the drainage composite material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The drainage composite should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering-controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557-91). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 4-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 8-foot on-center spacing. The weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system.

6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The on-site soils generally consist of well graded sands and sandy gravels. Based on their classification, these materials are expected to possess good to excellent pavement support characteristics, with R-values in the range of 60 to 70. Since R-value testing was not included in the scope of services for this project, the subsequent pavement design is based upon an assumed R-value of 60. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	**No. of Heavy Trucks per Day**
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R=60)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	3	3	3	3	4
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and

Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within Portland cement concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 5.0 & 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. Reinforcing within all pavements should be designed by the structural engineer. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness. The actual joint spacing and reinforcing of the Portland cement concrete pavements should be determined by the structural engineer.

7.0 GENERAL COMMENTS

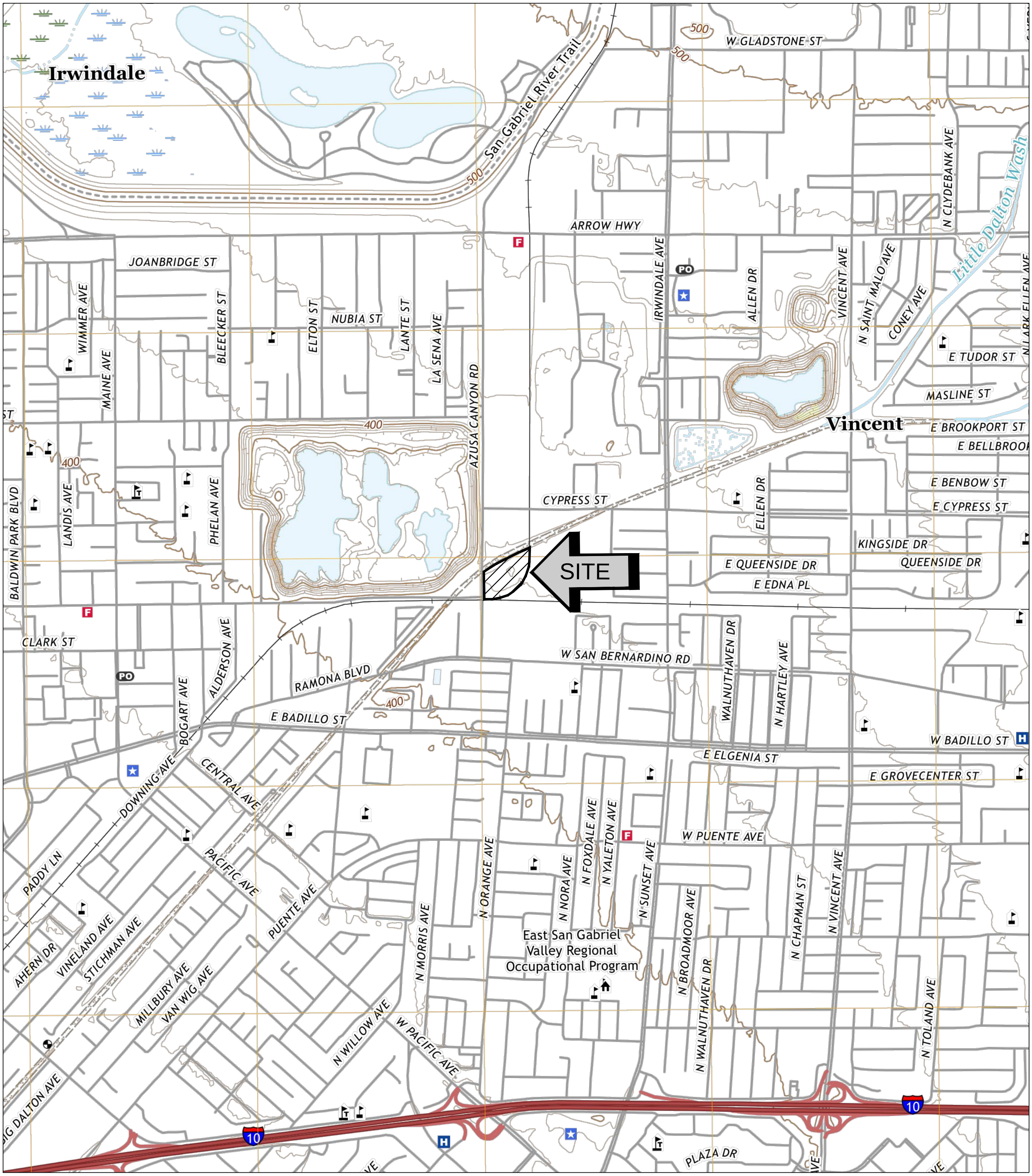
This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between trench locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

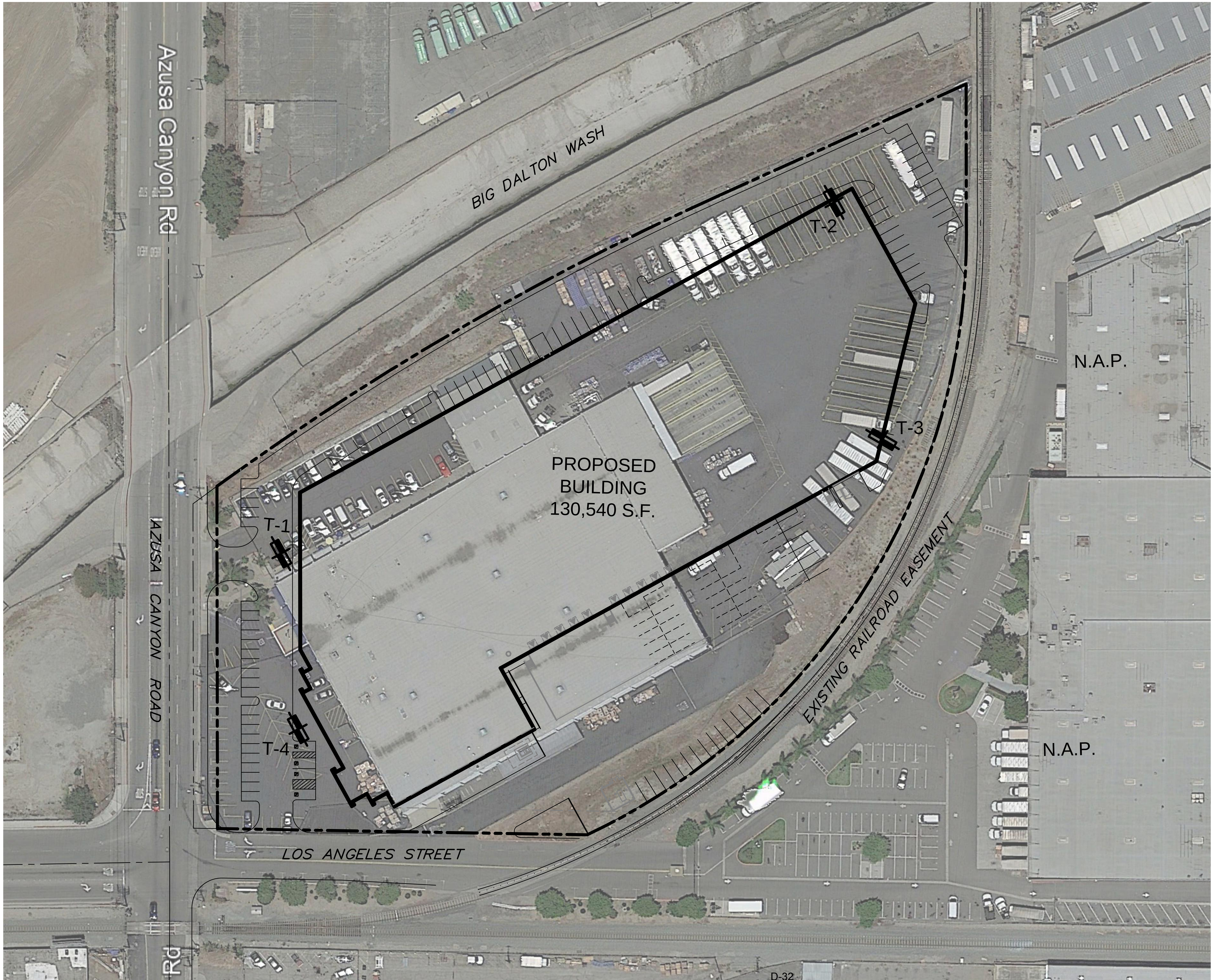
The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A



SOURCE: USGS TOPOGRAPHIC MAP OF THE BALDWIN PARK QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA, 2018.

SITE LOCATION MAP	
PROPOSED WAREHOUSE	
IRWINDALE, CALIFORNIA	
SCALE: 1" = 2000'	SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: JAH CHKD: RGT	
SCG PROJECT 20G105-1	
PLATE 1	



GEOTECHNICAL LEGEND

APPROXIMATE TRENCH LOCATION

NOTE: CONCEPTUAL SITE PLAN PREPARED BY GAA ARCHITECTS.

TRENCH LOCATION PLAN	
PROPOSED WAREHOUSE	
IRWINDALE, CALIFORNIA	
SCALE: 1" = 80'	SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: JAH CHKD: RGT	
SCG PROJECT 20G105-1	
PLATE 2	

APPENDIX B

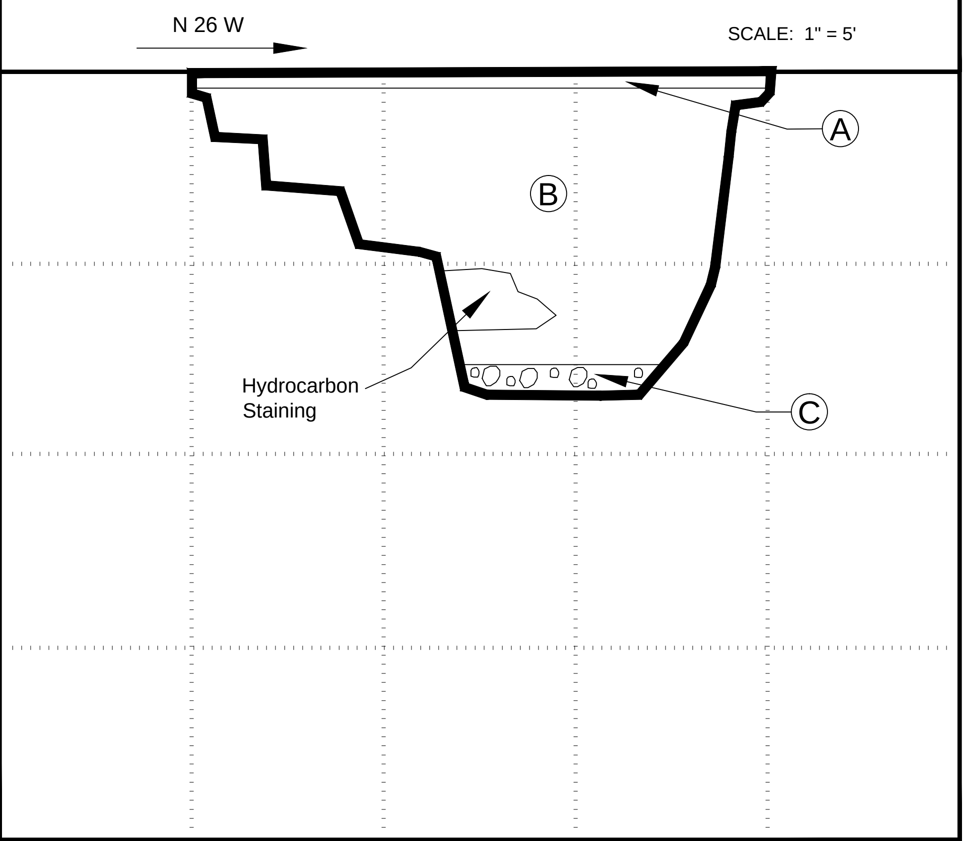
SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-1

JOB NO.: 20G105-1	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Prop Warehouse	LOGGED BY: Jamie Hayward	SEEPAGE DEPTH: Dry
LOCATION: Irwindale, CA	ORIENTATION: N 26 W	READINGS TAKEN: At Completion
DATE: 1-31-2020	ELEVATION: ---	

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: 4 inches Asphaltic Concrete, No Discernable Aggregate Base
	b		7	B: FILL: Gray Brown fine Sand, trace medium to coarse Sand, trace fine Gravel, occasional Clay nodules, medium dense-damp to very moist
5				@ 6 to 8 feet, some hydrocarbon staining
	b		16	C: ALLUVIUM: Gray Brown Gravelly fine to coarse Sand, some Cobbles, occasional Boulders, dense-dry
	b		1	
				Trench Terminated @ 8.5 feet
10				
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-1

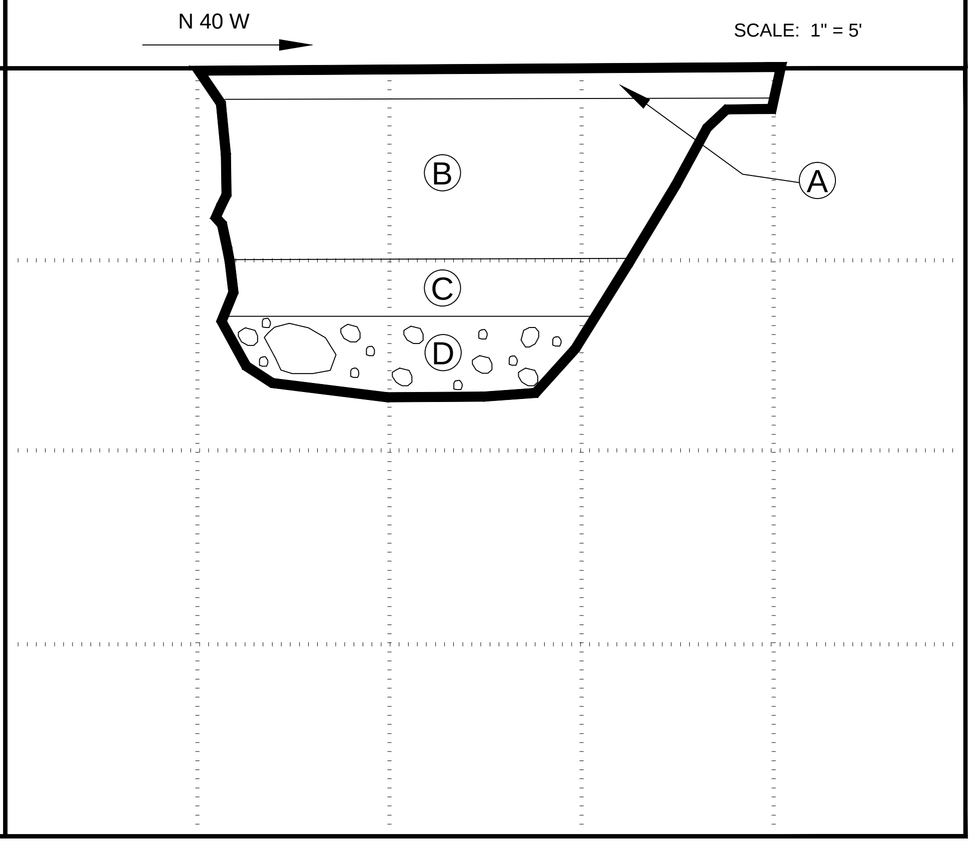
SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-2

JOB NO.: 20G105-1	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Prop Warehouse	LOGGED BY: Jamie Hayward	SEEPAGE DEPTH: Dry
LOCATION: Irwindale, CA	ORIENTATION: N 40 W	READINGS TAKEN: At Completion
DATE: 01-31-2020	ELEVATION: ---	

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: 1.5 inches Asphaltic Concrete, 7 inches Aggregate Base
	b		9	B: FILL: Brown Silty fine Sand intermixed with gravelly fine to coarse Sand, trace glass fragments, some Cobbles, medium dense-moist
	b		12	
5				C: FILL: Gray Brown fine Sand, trace medium to coarse Sand, little fine Gravel, loose-moist
	b		9	D: ALLUVIUM: Gray Brown Gravelly fine to coarse Sand, some cobbles, occasional Boulders, dense-damp
	b		2	
	b		3	
				Trench Terminated @ 8.5 feet
10				
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-2

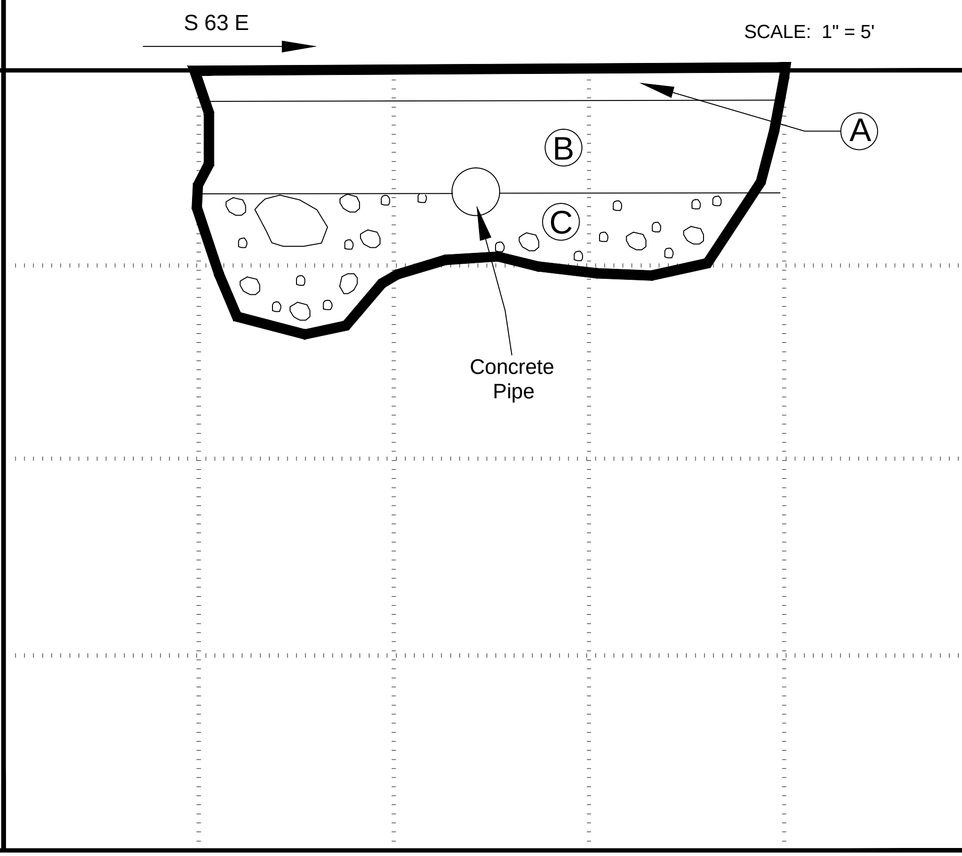
SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-3

JOB NO.: 20G105-1	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Prop Warehouse	LOGGED BY: Jamie Hayward	SEEPAGE DEPTH: Dry
LOCATION: Irwindale, CA	ORIENTATION: S 63 E	READINGS TAKEN: At Completion
DATE: 01-28-2020	ELEVATION: ---	

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
	b		12	A: 3 inches Asphaltic Concrete, 5 inches Aggregate Base B: FILL: Brown Silty fine Sand, little fine to coarse Gravel, medium dense-moist
	b		3	C: ALLUVIUM: Gray Brown Gravelly fine to coarse Sand, some Cobbles, occasional Boulders, dense-damp
5				
				Trench Terminated @ 6 feet due to damaged pipe
10				
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-3

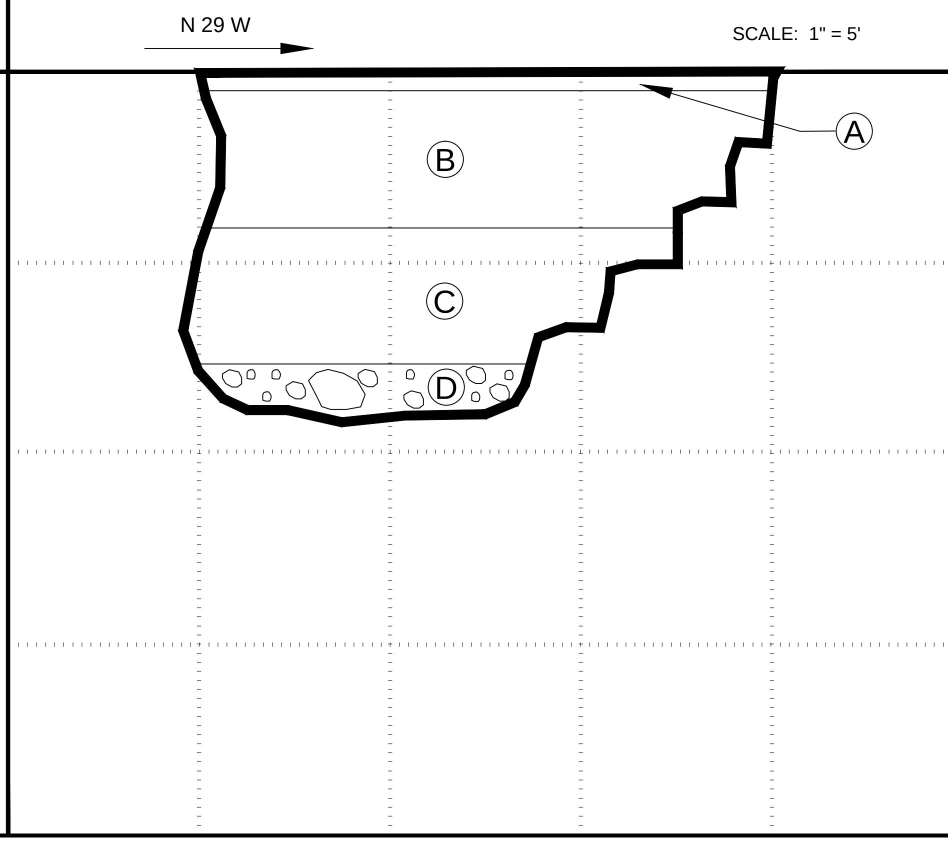
SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-4

JOB NO.: 20G105-1	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Prop Warehouse	LOGGED BY: Jamie Hayward	SEEPAGE DEPTH: Dry
LOCATION: Irwindale, CA	ORIENTATION: N 29 W	READINGS TAKEN: At Completion
DATE: 01-31-2020	ELEVATION: ---	

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: 2 inches Asphaltic concrete, 3 inches Aggregate Base
	b		10	B: FILL: Gray Brown fine Sand, little medium to coarse Sand, trace fine Gravel, occasional Clay nodules, trace Silt, medium dense-moist
5	b		11	C: FILL: Brown Silty fine Sand intermixed with fine Sand, trace Clay nodules, little Iron oxide staining, medium dense-moist to very moist
	b		14	
				D: ALLUVIUM: Gray Brown Gravelly fine to coarse Sand, some Cobbles, occasional Boulders, dense-damp
	b		3	
				Trench Terminated @ 9 feet
10				
15				

GRAPHIC REPRESENTATION

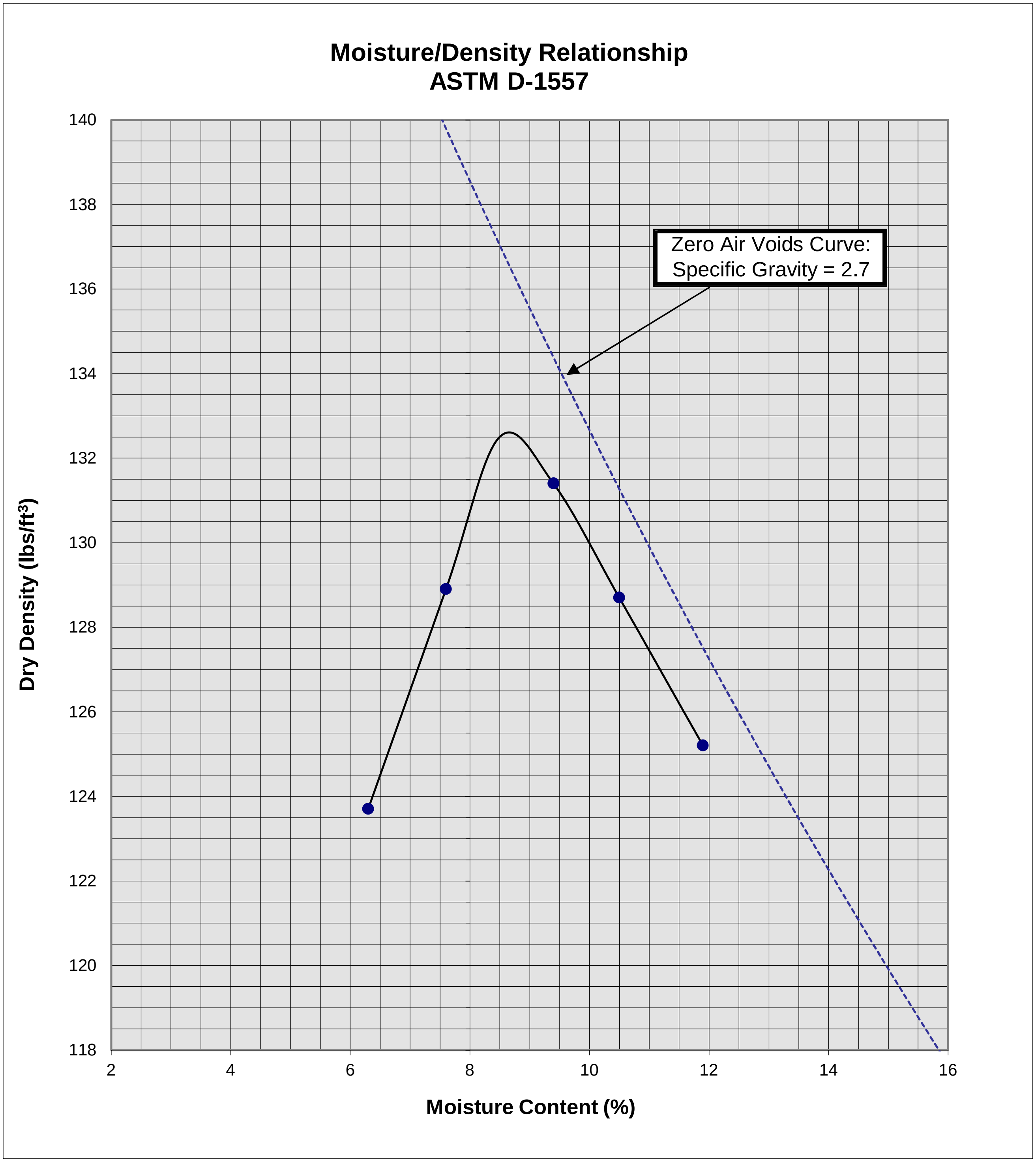


KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-4

APPENDIX C



Soil ID Number	T-2 @ 0-5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	132.5
Soil Classification	Brown Silty fine to coarse Sand, little fine to coarse Gravel, some Cobbles

Proposed Warehouse
Irwindale, California
Project No. 20G105

PLATE C-1

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

A
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GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

<u>Compacted Fills</u>

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as "contaminated," and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

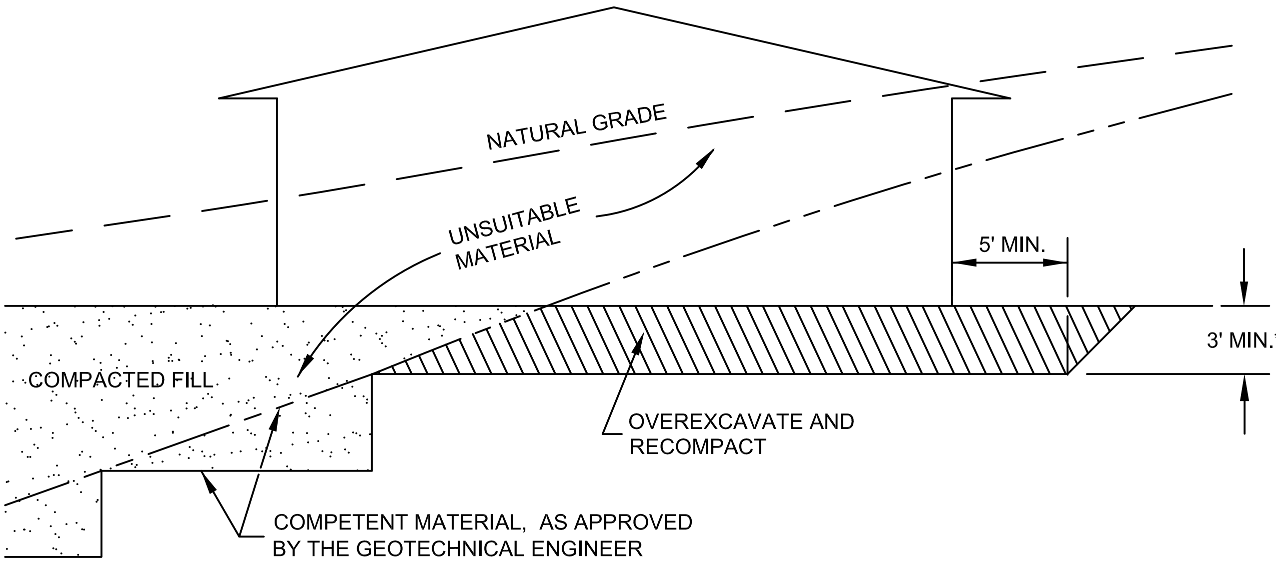
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

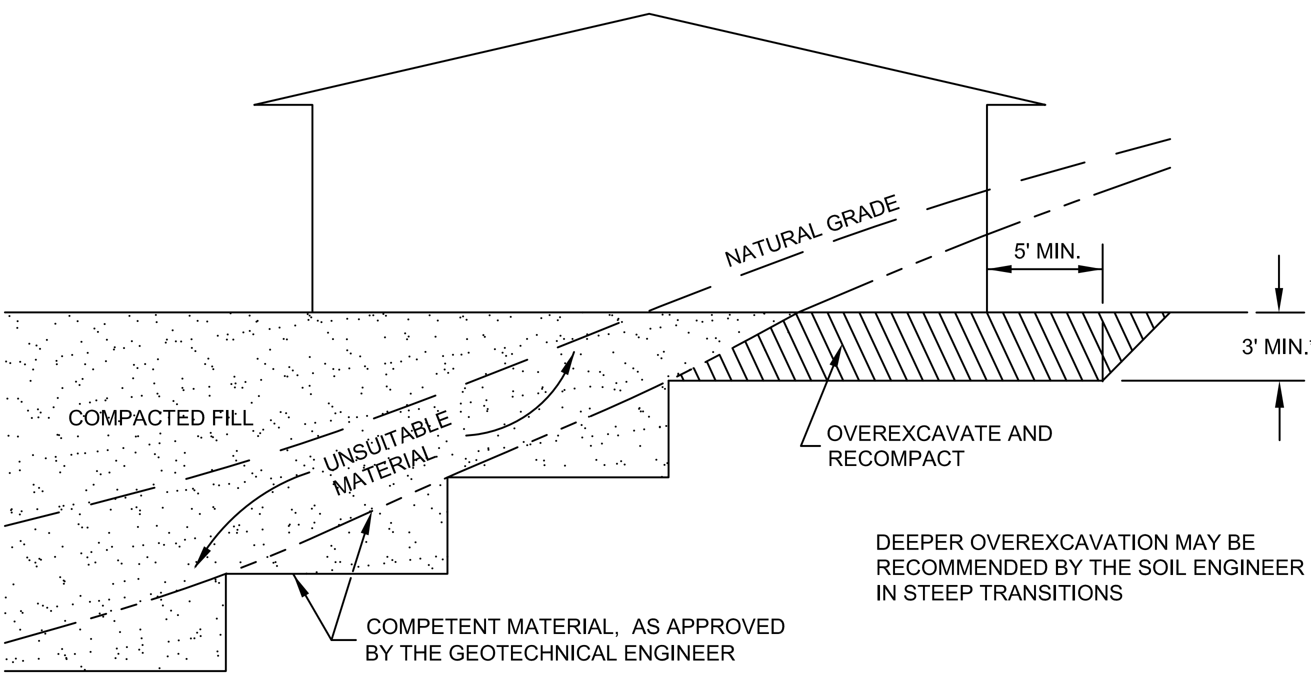
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)



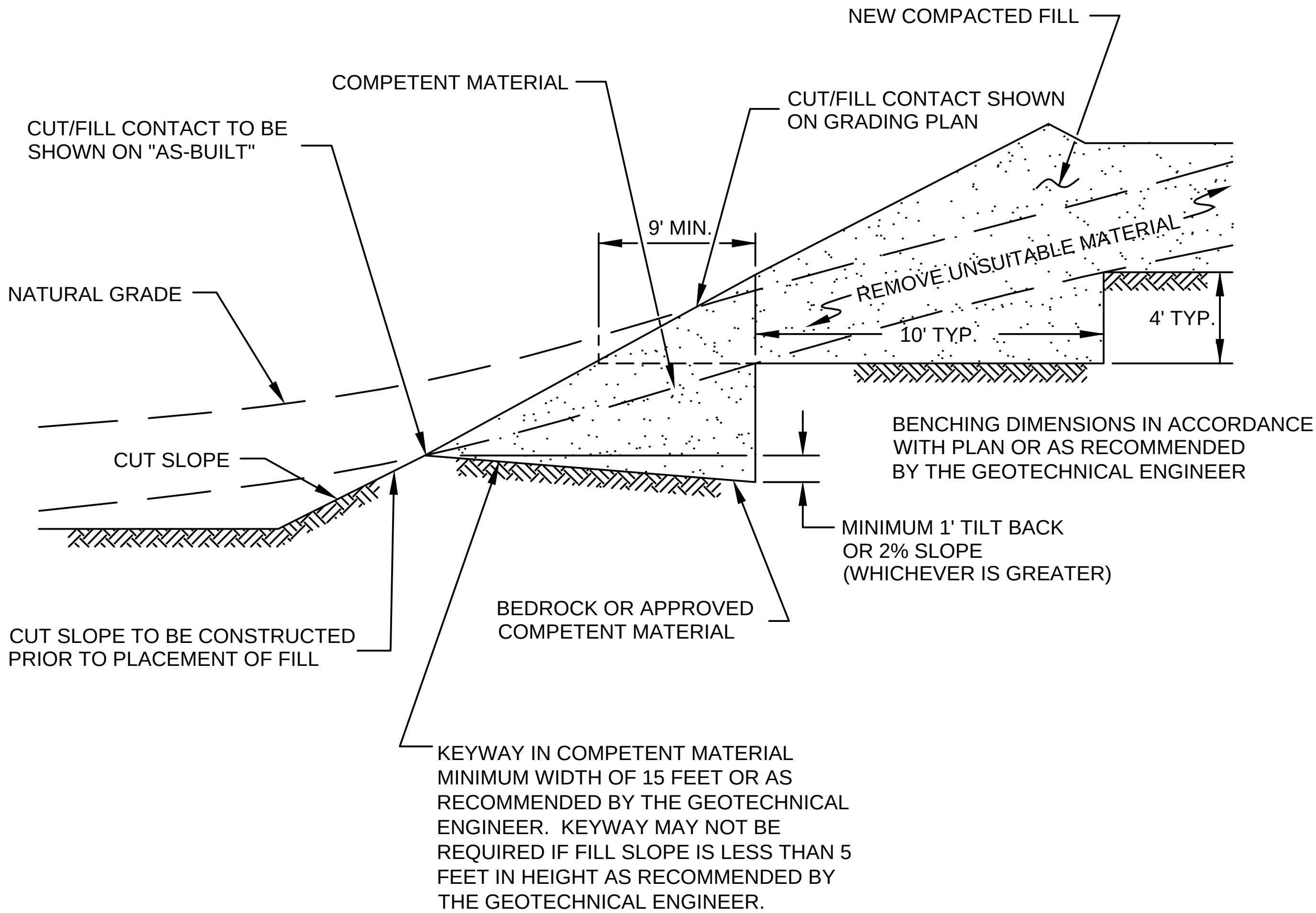
DEEPER OVEREXCAVATION MAY BE RECOMMENDED BY THE SOIL ENGINEER IN STEEP TRANSITIONS

*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION.
ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE	SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: JAS CHKD: GKM	
PLATE D-1	



FILL ABOVE CUT SLOPE DETAIL

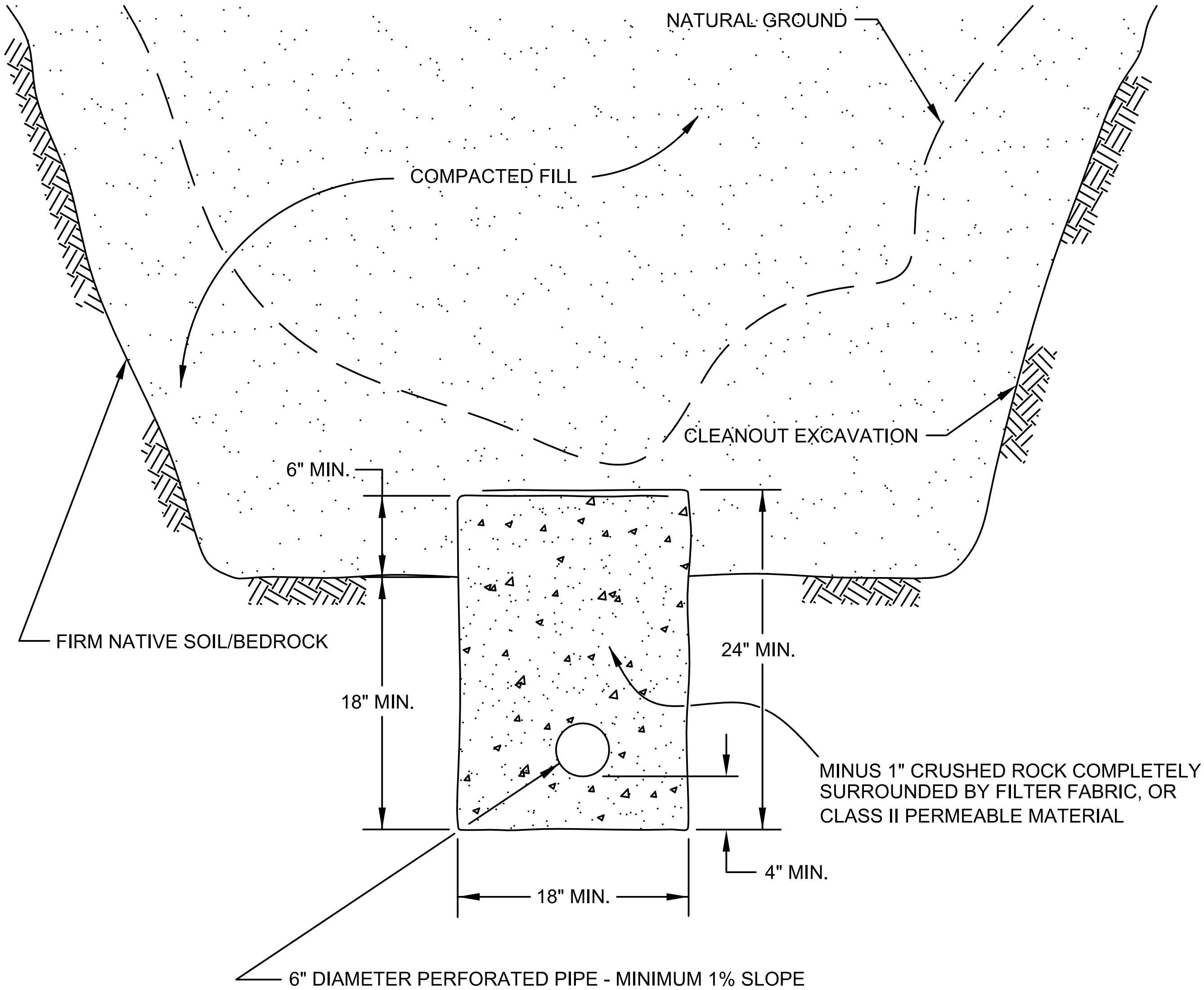
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL

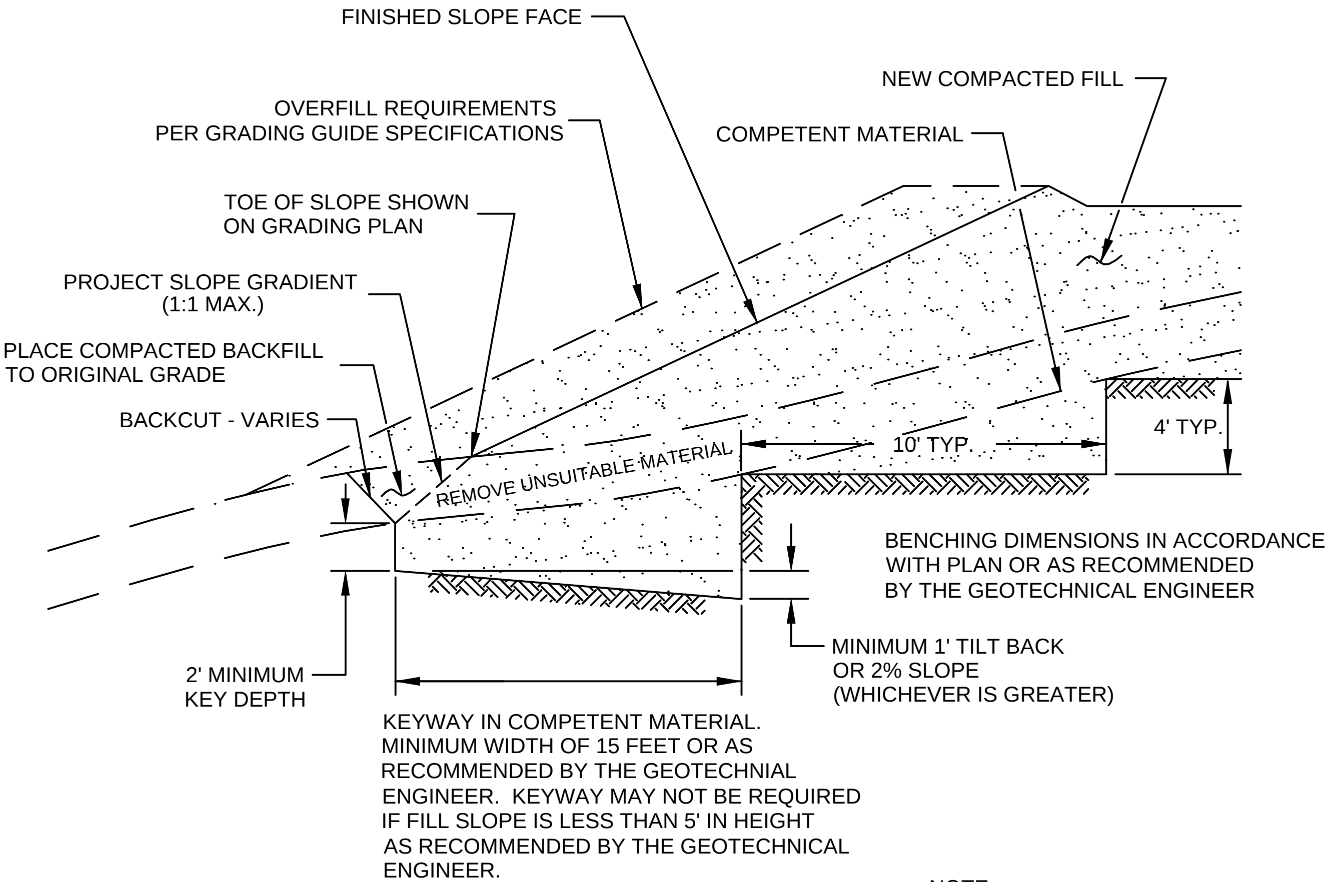
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

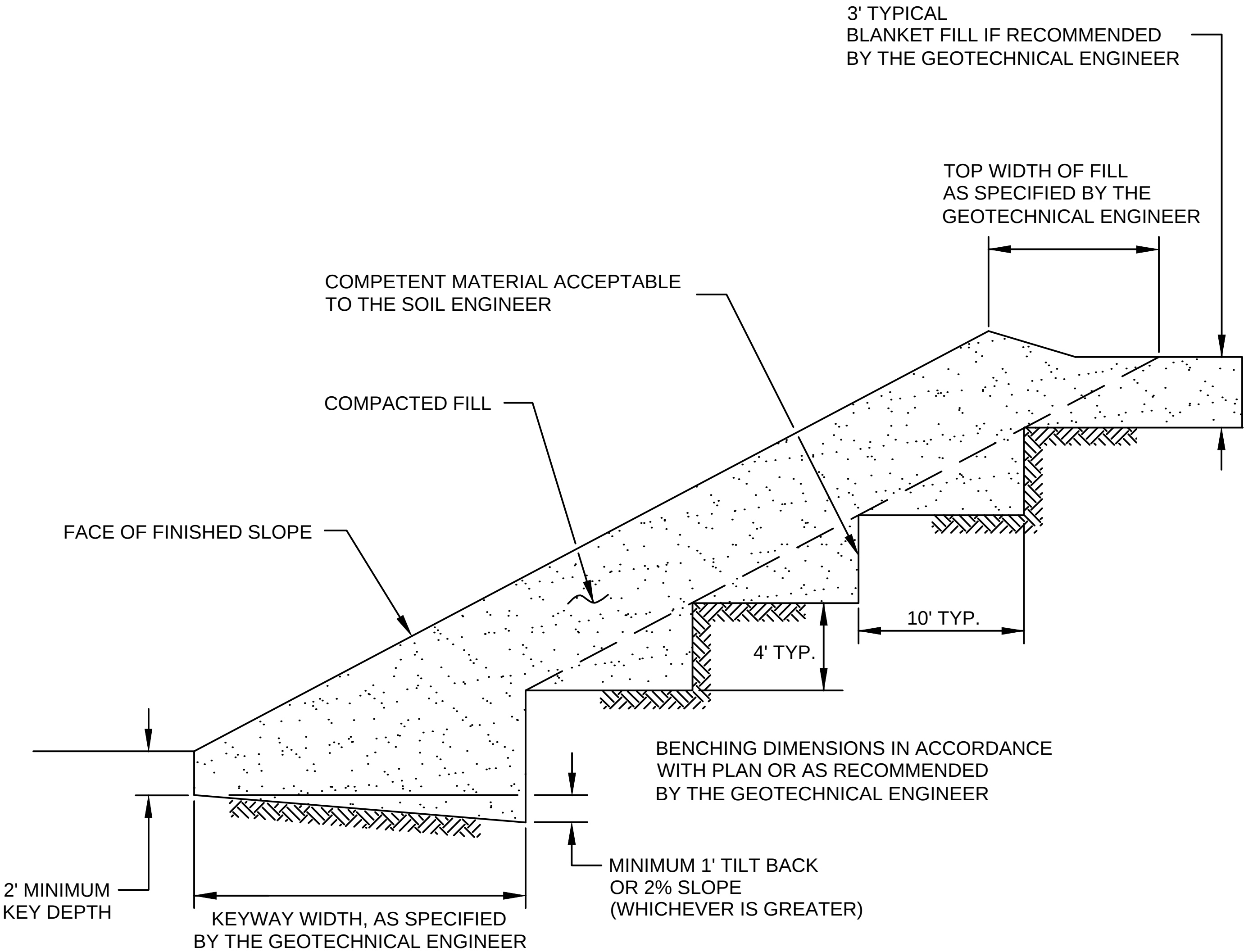
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

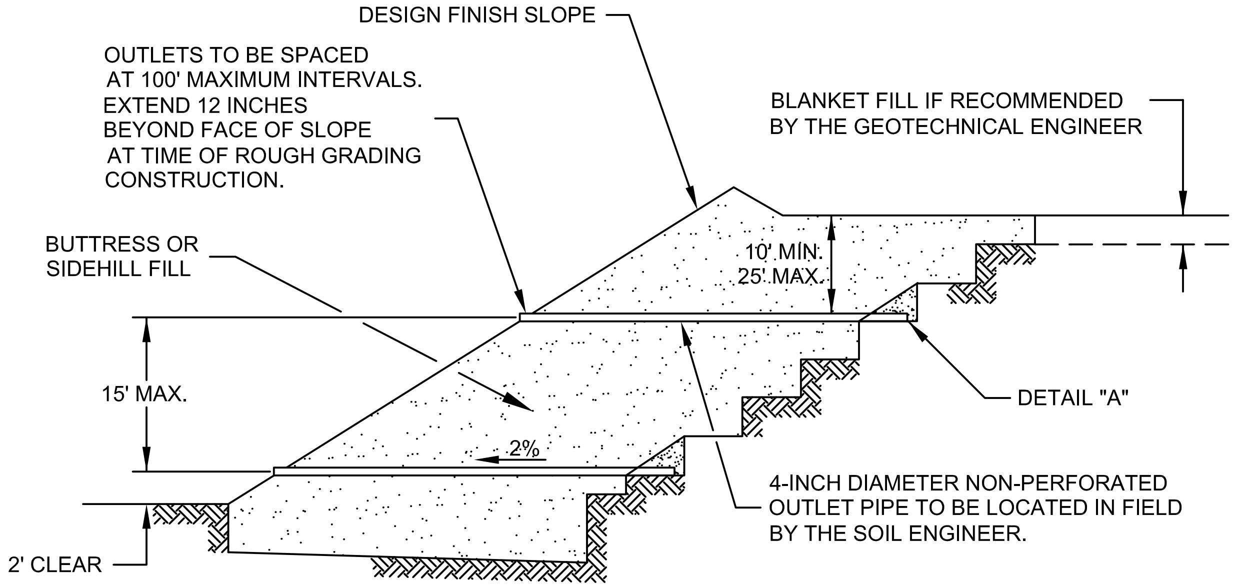
DRAWN: JAS
CHKD: GKM

PLATE D-4

SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: JAS CHKD: GKM	
PLATE D-5	



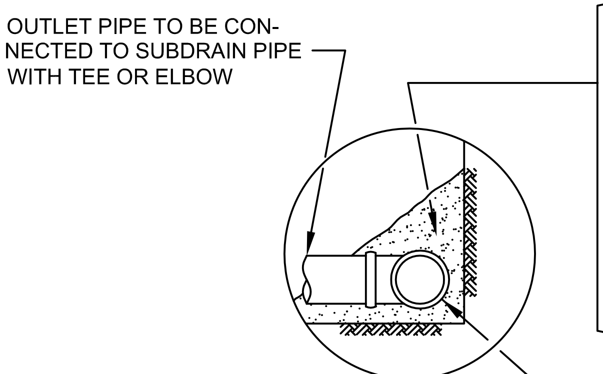
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



FILTER MATERIAL - MINIMUM OF FIVE CUBIC FEET PER FOOT OF PIPE. SEE ABOVE FOR FILTER MATERIAL SPECIFICATION.

ALTERNATIVE: IN LIEU OF FILTER MATERIAL FIVE CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE ABOVE FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFI 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 12 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.

DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

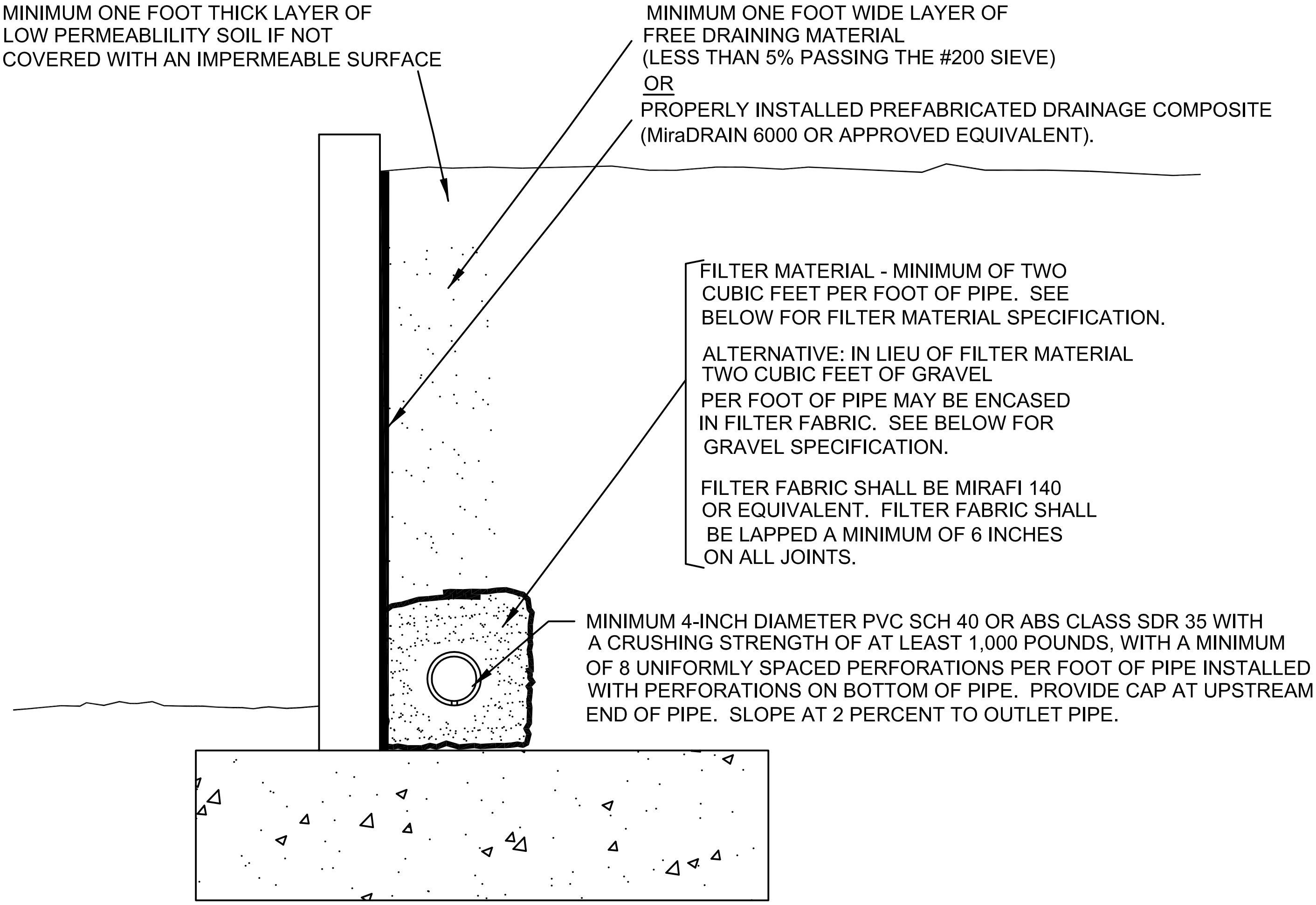
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

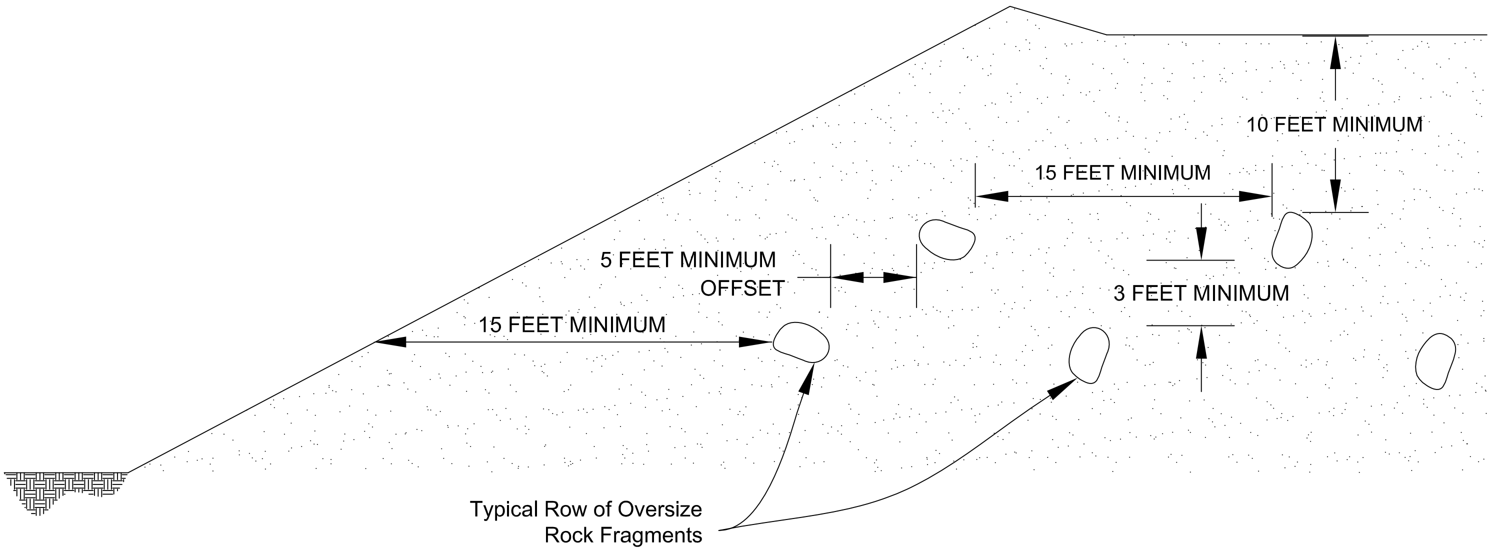
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

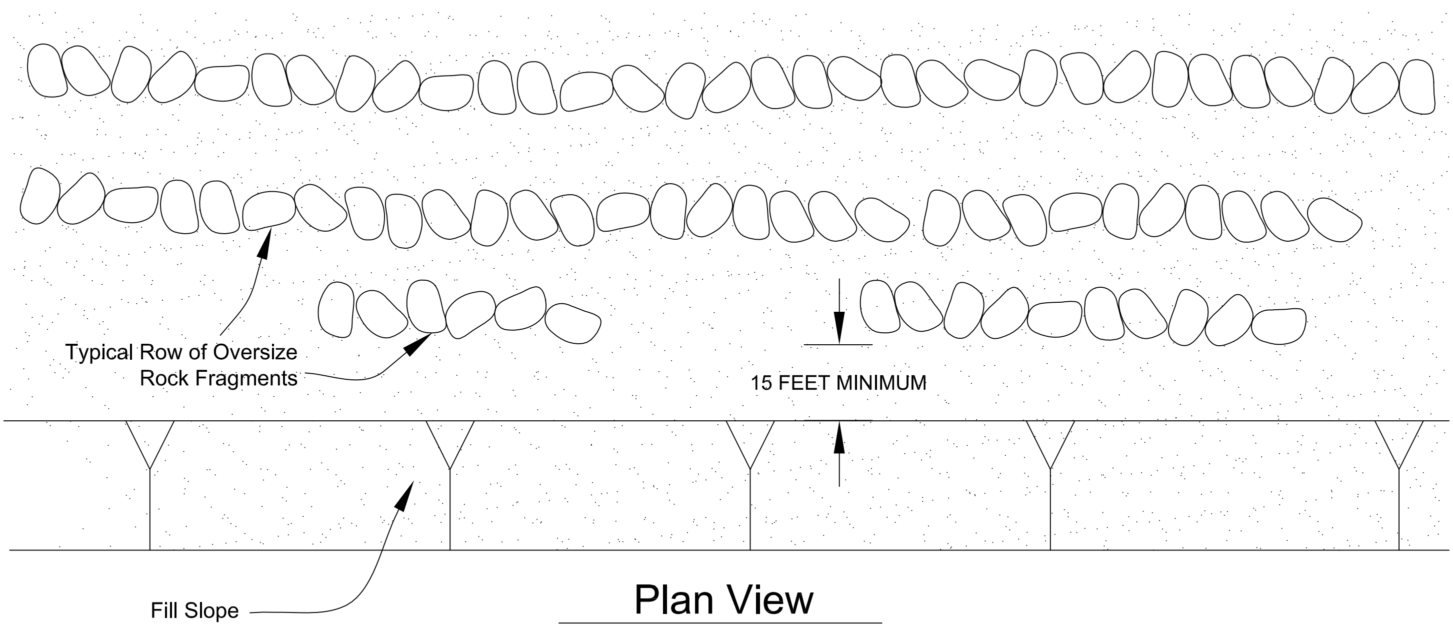
DRAWN: JAS
CHKD: GKM

PLATE D-7

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL
GRADING GUIDE SPECIFICATIONS
NOT TO SCALE
DRAWN: PM CHKD: GKM
PLATE D-8

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

Latitude, Longitude: 34.093405, -117.941965

Date	2/4/2020, 1:54:27 PM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.659	MCE_R ground motion. (for 0.2 second period)
S_1	0.615	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.659	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.106	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.703	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.774	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.659	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.814	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.981	Factored deterministic acceleration value. (0.2 second)
S1RT	0.615	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.68	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.621	Factored deterministic acceleration value. (1.0 second)
PGAd	0.794	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.914	Mapped value of the risk coefficient at short periods
C_{R1}	0.905	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC

PROPOSED WAREHOUSE

IRWINDALE, CALIFORNIA

DRAWN: JAH
CHKD: RGT

SCG PROJECT
20G105-1

PLATE E-1

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL

February 13, 2020

Rexford Industrial
11620 Wilshire Boulevard, 10th floor
Los Angeles, California 90025

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Attention: Mr. Ricardo Rivas
Construction Manager

Project No.: **20G105-2**

Subject: **Results of Infiltration Testing**
Proposed Warehouse - Infiltration
4416 Azusa Canyon Road
Irwindale, California

Reference: Geotechnical Investigation and Infiltration Testing, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, prepared for Rexford Industrial, by Southern California Geotechnical, Inc. (SCG), SCG Project No. 20G105-1.

Dear Mr. Rivas:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 19P370, dated September 25, 2019. The scope of services included site reconnaissance, subsurface exploration, obtaining representative soil samples, laboratory testing, review of relevant geological literature, analysis to determine the infiltration rates of the onsite soils, and preparation of a geotechnical report documenting our findings. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Site and Project Description

The subject site is located at the northeast corner of Azusa Canyon Road and Los Angeles Street in Irwindale, California. The site is bounded to the north by the Big Dalton Wash, to the west by Azusa Canyon Road, to the south by Los Angeles Street, and to the southeast and east by an existing railroad easement. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of an irregular-shaped parcel, 5.89± acres in size. The site is presently developed with one warehouse, 64,535± ft² in size, in the western half of the site. The warehouse is currently occupied by Pepsi Bottling Group. The building is a single-story structure of concrete tilt-up construction and is assumed to be supported on conventional shallow foundations with a concrete slab-on-grade floor. A loading dock is located along a portion of the northeast building wall. A modular building, about 1,000 ± ft² in size is present in the east-central portion of the site. This modular building appears to be supported directly on the pavements. The buildings are surrounded by asphaltic concrete pavements in the parking and drive areas, Portland cement concrete pavements in the loading dock areas, and concrete flatwork in limited areas throughout the site. The southeastern area of the site is vacant and undeveloped. The ground surface cover in this area consists of exposed soil with moderate to extensive native grass and weed growth.

Detailed topographic information was not available at the time of this report. Based on visual observations made at the time of the subsurface investigation and from elevation data obtained from Google Earth, the overall site topography generally slopes downward to the southwest at a gradient of 1 to 2± percent.

Proposed Development

A site plan, prepared by GAA Architects, has been provided to our office by the client. Based on this plan, a new warehouse, 130,540± ft² in size, will be constructed in the central area of the site. Dock-high doors will be constructed along a portion of the south building wall. The building will be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, concrete flatwork and landscape planters throughout.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, typically supported on conventional shallow foundations with a concrete slab-on-grade floor. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 3 to 5 kips per linear foot, respectively.

Grading plans for the proposed development were not available at the time of this report. The proposed development is not expected to include any significant amounts of below-grade construction such as basements or crawl spaces. Based on the existing topography, and assuming a relatively balanced site, cuts and fills of 2 to 3± feet are expected to be necessary to achieve the proposed site grades.

Concurrent Study

Southern California Geotechnical, Inc. (SCG) concurrently conducted a geotechnical investigation at the subject site. As part of this study, four (4) trenches were excavated to depths of 6 to 9± feet below the existing site grades. Artificial fill soils were encountered beneath the pavements at all trench locations, extending to depths of 3 to 7½± feet below the existing site grades. At Trench Nos. T-1 and T-4, the fill soils contain occasional clay nodules. The artificial fill soils generally consist of medium dense fine sands, silty sands with varying fine to coarse gravel content and occasional Cobbles. The fill soils possess a disturbed appearance and some samples contain debris, such as glass fragments, resulting in their classification as artificial fill. Native alluvial soils were encountered at all of the trench locations, extending to at least the maximum depth explored of 9± feet below the existing site grades. The native alluvial soils generally consist of gravelly well-graded sands, with some cobbles and occasional boulders.

Groundwater

Free water was not encountered during the drilling of any of the trench locations. Based on the lack of any water within the trenches, and the moisture contents of the recovered soil samples, the static groundwater is considered to have existed at a depth in excess of 10± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the groundwater depths in this area is the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. The nearest monitoring well in this database is located approximately 300 feet West of the site. Water level readings within this monitoring well indicate groundwater levels of 194± feet below the ground surface in April 2017.

Subsurface Exploration

Scope of Exploration

The subsurface exploration conducted for this project consisted of two (2) backhoe-excavated infiltration trenches to depths of 9 to 10± feet below existing site grades. The trenches were logged during excavation by a member of our staff. The approximate locations of the infiltration trenches (identified as I-1 and I-2) are included in this report as Plate 2.

Geotechnical Conditions

Artificial fill soils were encountered at the two (2) infiltration test locations and extend to depths of 4 to 6± feet. At Infiltration No. I-1, the fill extends to 6 feet below the existing site grades. The fill soils at this location consist of loose and dry silty fine sands with trace to occasional medium to coarse sand and trace gravel. These soils are underlain by a 1-foot-thick soft and damp silty clay layer between 3 and 4 feet below ground surface. At Infiltration No. I-2, the fill consists of loose and damp silty fine sand with trace gravel. At 1½± feet, little to some soft and damp clay was encountered to the maximum fill depth of 4± feet. The artificial fill soils possess a disturbed appearance and metal fragments were observed within the fill at Infiltration No. I-1.

Native alluvium was encountered beneath the artificial fill soils at all of the infiltration locations, extending to at least the maximum depth explored of 10± feet below existing site grades. The alluvial soils beneath the artificial fill consist of loose and damp gravelly fine to coarse sand with some cobble content at both infiltration test locations. At Infiltration Trench No. I-2, cobble content varies within the alluvium, with extensive cobble content between 5 and 7 feet, and occasional cobbles between 9½ and 10± feet. The Trench Logs, which illustrate the conditions encountered at the infiltration test locations, are presented on plates B-1 and B-2 of this report.

Infiltration Testing

We understand that the results of the testing will be used to prepare a preliminary design for the storm water infiltration systems that will be used at the subject site. As previously mentioned, the infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At each test location, a trench was excavated to the proposed depth of the infiltration system and the outer ring was driven 3± inches into the soil at the base of each trench. The inner ring was centered inside the outer ring and subsequently driven 3± inches into the soil at the base of the trench. The rings were driven into the soil using a ten-pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

Infiltration testing was performed at both of the infiltration trench locations. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer rings) with water, approximately 3 to 4 inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings was maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the tests.

The schedule for readings was determined based on the observed soil type at the base of each backhoe-excavated trench. Based on the existing soils at the trench locations, the volumetric measurements were made at 1-minute increments at I-1, and 4-minute increments at I-2. The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets.

The infiltration rates for the infiltration tests are calculated in centimeters per hour and then converted to inches per hour. The rates are summarized below:

Infiltration Test No.	**Depth (feet)**	**Soil Description**	**Infiltration Rate (inches/hour)**
I-1	9	Light Gray Sandy fine to coarse Gravel, some Cobble content, trace Silt	19.4
I-2	10	Light Gray Gravelly fine to coarse Sand, occasional Cobble content, trace Silt	10.5

Laboratory Testing

Moisture Content

The moisture contents for selected soil samples within the trenches were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Trench Logs.

Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test trench has been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of the grainsize analysis are presented on Plates C-1 and C-2 of this report.

Design Recommendations

Two (2) infiltration tests were performed at the subject site. As noted above, the calculated infiltration rates at the infiltration test locations are 19.1 and 10.5 inches per hour. **Based on the results of Infiltration Test Nos. I-1 and I-2, we recommend an infiltration rate of 10 inches per hour be used for the design of the proposed below-grade chamber system located in the east-central region and for the proposed chamber system located in the southwestern region of the site.**

We recommend that a representative from the geotechnical engineer be on-site during the construction of the proposed infiltration systems to identify the soil classification at the base of each chamber system. It should be confirmed that the soils at the base of the proposed infiltration systems correspond with those presented in this report to ensure that the performance of the systems will be consistent with the rates reported herein.

The design of the proposed storm water infiltration systems should be performed by the project civil engineer, in accordance with the City of Irwindale and/or County of Los Angeles guidelines. However, it is recommended that the systems be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the system. The presence of such materials would decrease the effective infiltration rates. **It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rates recommended above are based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rates.** It should be noted that the recommended infiltration rates are based on infiltration testing at two (2) discrete locations, and the overall infiltration rates of the storm water infiltration systems could vary considerably.

Construction Considerations

The infiltration rates presented in this report are specific to the tested locations and tested depths. Infiltration rates can be significantly reduced if the soils are exposed to excessive disturbance or compaction during construction. Therefore, the subgrade soils within proposed infiltration system areas should not be over-excavated, undercut or compacted in any significant manner. **It is recommended that a note to this effect be added to the project plans and/or specifications.**

Infiltration versus Permeability

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. The infiltration rates presented herein were determined in accordance with the ASTM Test Method D-3385-03 standard and are considered valid for the time and place of the actual test. Changes in soil moisture content will affect these infiltration rates. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration areas could potentially be damaged due to saturation of subgrade soils. **The proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls.** Even with this provision of locating the infiltration systems at least 25 feet from the buildings, it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rates contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between trench locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

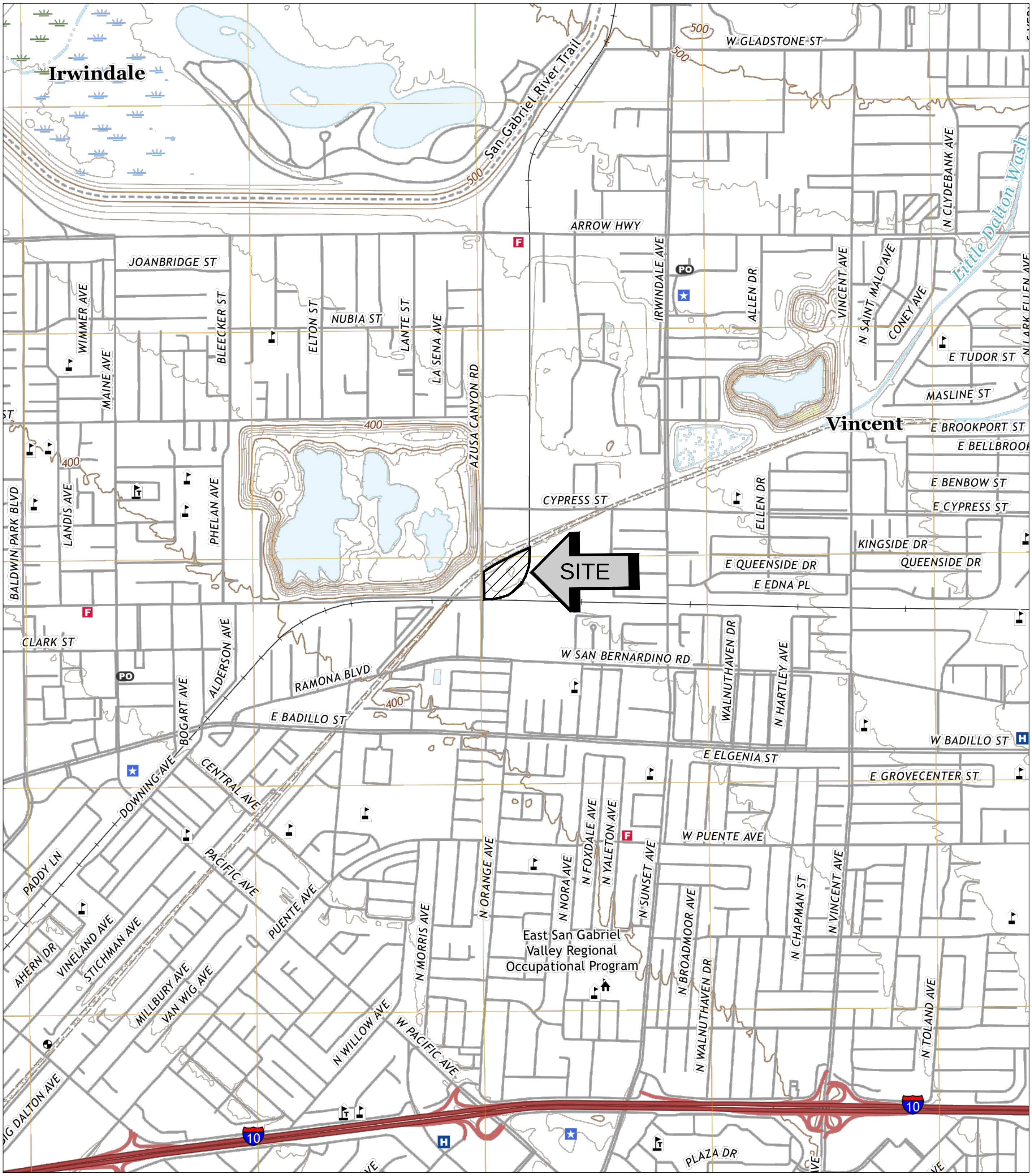
SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Ryan Bremer
Staff Geologist

Robert G. Trazo, GE 2655
Principal Engineer

Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2 - Infiltration Test Location Plan
Trench Logs (2 pages)
Infiltration Test Results Spreadsheets (2 pages)
Grain Size Distribution Graphs (2 pages)



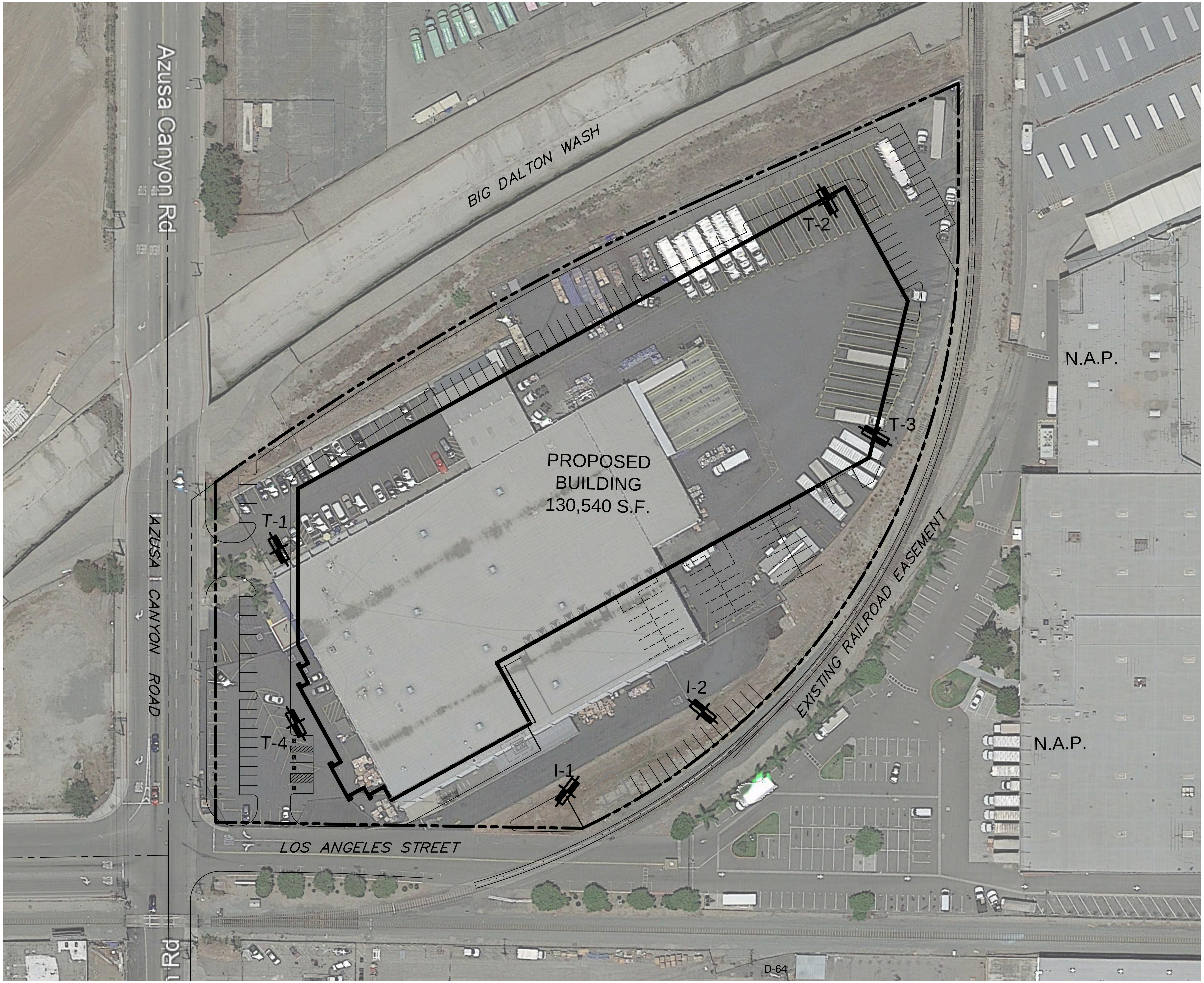
SOURCE: USGS TOPOGRAPHIC MAP OF THE BALDWIN PARK QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA, 2018.

SITE LOCATION MAP

PROPOSED WAREHOUSE

IRWINDALE, CALIFORNIA

SCALE: 1" = 2000'	SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: RB CHKD: RGT	
SCG PROJECT 20G105-2	
PLATE 1	



GEOTECHNICAL LEGEND

APPROXIMATE TRENCH LOCATION

NOTE: CONCEPTUAL SITE PLAN PREPARED BY GAA ARCHITECTS.

TRENCH AND INFILTRATION LOCATION PLAN

PROPOSED WAREHOUSE

IRWINDALE, CALIFORNIA

SCALE: 1" = 80'

DRAWN: RB
CHKD: RGT

SCG PROJECT
20G105-2

PLATE 2

SOUTHERN CALIFORNIA GEOTECHNICAL

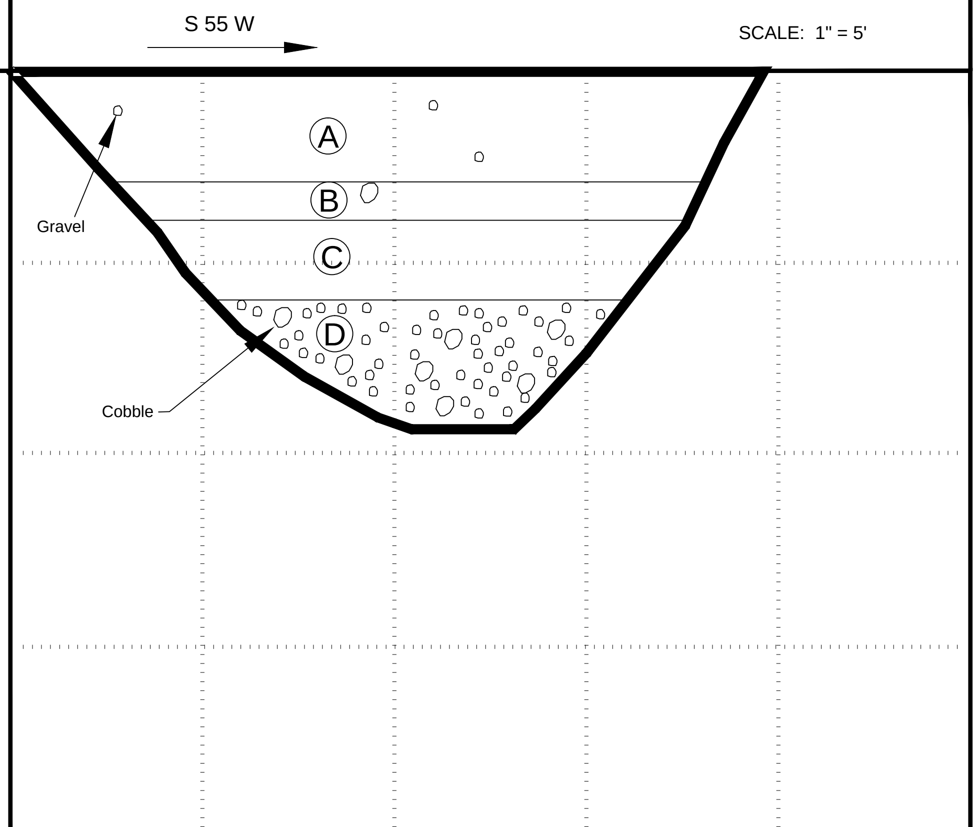
SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-1

JOB NO.: 20G105-2	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	LOGGED BY: Ryan Bremer	SEEPAGE DEPTH: Dry
LOCATION: Irwindale, CA	ORIENTATION: S 55 W	READINGS TAKEN: At Completion
DATE: 1/31/20		

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Brown Silty fine Sand, trace medium to coarse Sand, trace fine to coarse Gravel, abundant fine root fibers, mottled, loose-dry
				B: FILL: Dark brown Silty Clay, occasional fine Sand, trace fine root fibers, soft-damp
5				C: FILL: Brown Silty fine Sand, some medium to coarse Sand, some fine root fibers, loose-damp
				D: ALLUVIUM: Light gray Sandy fine to coarse Gravel, some Cobble content, trace Silt, loose-damp
	b		3	
				Trench Terminated @ 9 feet
10				
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-1

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. I-2

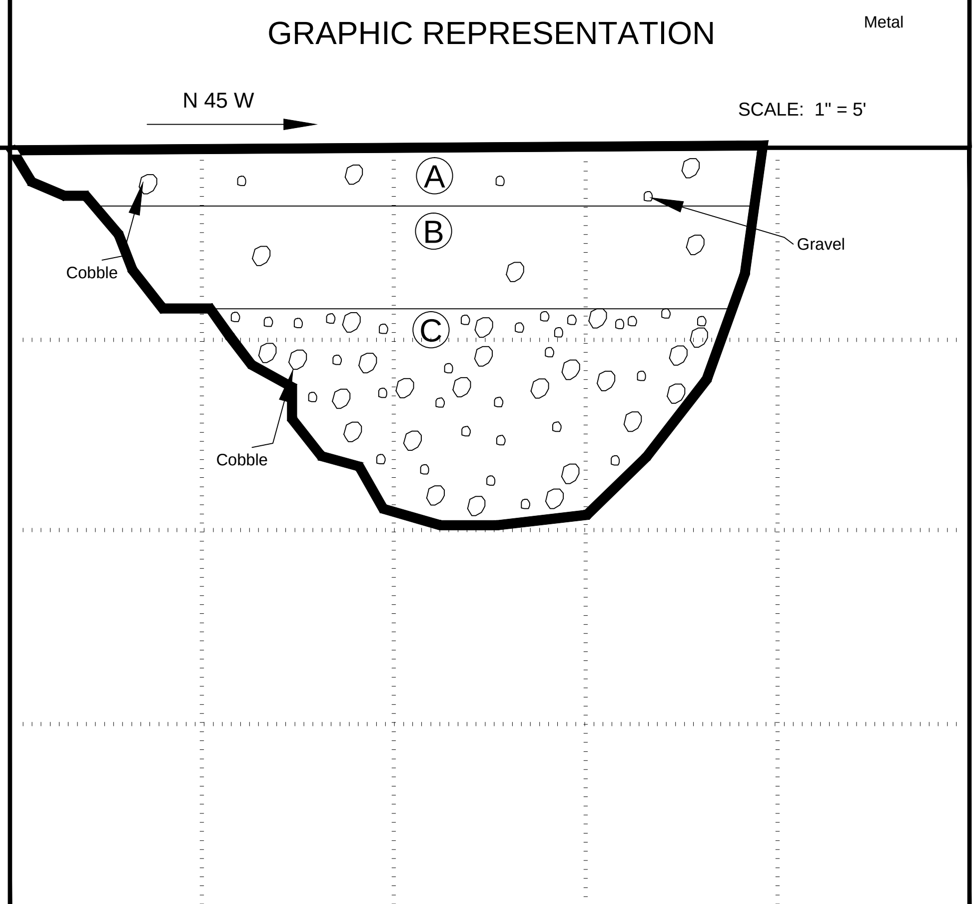
JOB NO.: 20G105-2
PROJECT: Proposed Warehouse
LOCATION: Irwindale, CA
DATE: 1/28/20

EQUIPMENT USED: Backhoe
LOGGED BY: Ryan Bremer
ORIENTATION: N 45 W

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Brown Silty fine Sand, trace fine to coarse Gravel, trace Cobble content, some fine root fragments, trace metal, loose-damp B: FILL: @ 1.5 feet little to some Clay
5				C: ALLUVIUM: Light gray Gravelly fine to coarse Sand, some Cobble content, trace Silt, loose-damp @ 5 to 7 feet Cobbly fine to coarse Sand, some fine to coarse Gravel
	b		5	
	b		4	@ 9.5 feet occasional Cobble content
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-2

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Irwindale, CA
Project Number	20G105-2
Engineer	Ryan Bremer

Infiltration Test No: I-1

Constants	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

				Flow Readings				Infiltration Rates			
Test Interval		Time (hr)	Interval **Elapsed** (min)	Inner Ring (ml)	Ring Flow (cm^3)	Annular Ring (ml)	Space Flow (cm^3)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:30 AM	0	0	700	0	5500	140.02	366.71	55.13	144.38
	Final	9:31 AM	**1**	700		5500					
2	Initial	9:33 AM	1	0	600	0	5400	49.34	148.02	19.43	58.28
	Final	9:34 AM	**4**	600		5400					
3	Initial	9:37 AM	1	0	600	0	4400	49.34	120.61	19.43	47.48
	Final	9:38 AM	**8**	600		4400					
4	Initial	9:40 AM	1	0	600	0	4600	49.34	126.09	19.43	49.64
	Final	9:41 AM	**11**	600		4600					
5	Initial	9:43 AM	1	0	550	0	4500	45.23	123.35	17.81	48.56
	Final	9:44 AM	**14**	550		4500					
6	Initial	9:46 AM	1	0	600	0	4400	49.34	120.61	19.43	47.48
	Final	9:47 AM	**17**	600		4400					
7	Initial	9:49 AM	1	0	600	0	4500	49.34	123.35	19.43	48.56
	Final	9:50 AM	**20**	600		4500					
8	Initial	9:51 AM	1	0	600	0	4600	49.34	126.09	19.43	49.64
	Final	9:52 AM	**22**	600		4600					
9	Initial	9:54 AM	1	0	550	0	4600	45.23	126.09	17.81	49.64
	Final	9:55 AM	**25**	550		4600					
10	Initial	9:56 AM	1	0	600	0	4400	49.34	120.61	19.43	47.48
	Final	9:57 AM	**27**	600		4400					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Irwindale, CA
Project Number	20G105-2
Engineer	Ryan Bremer

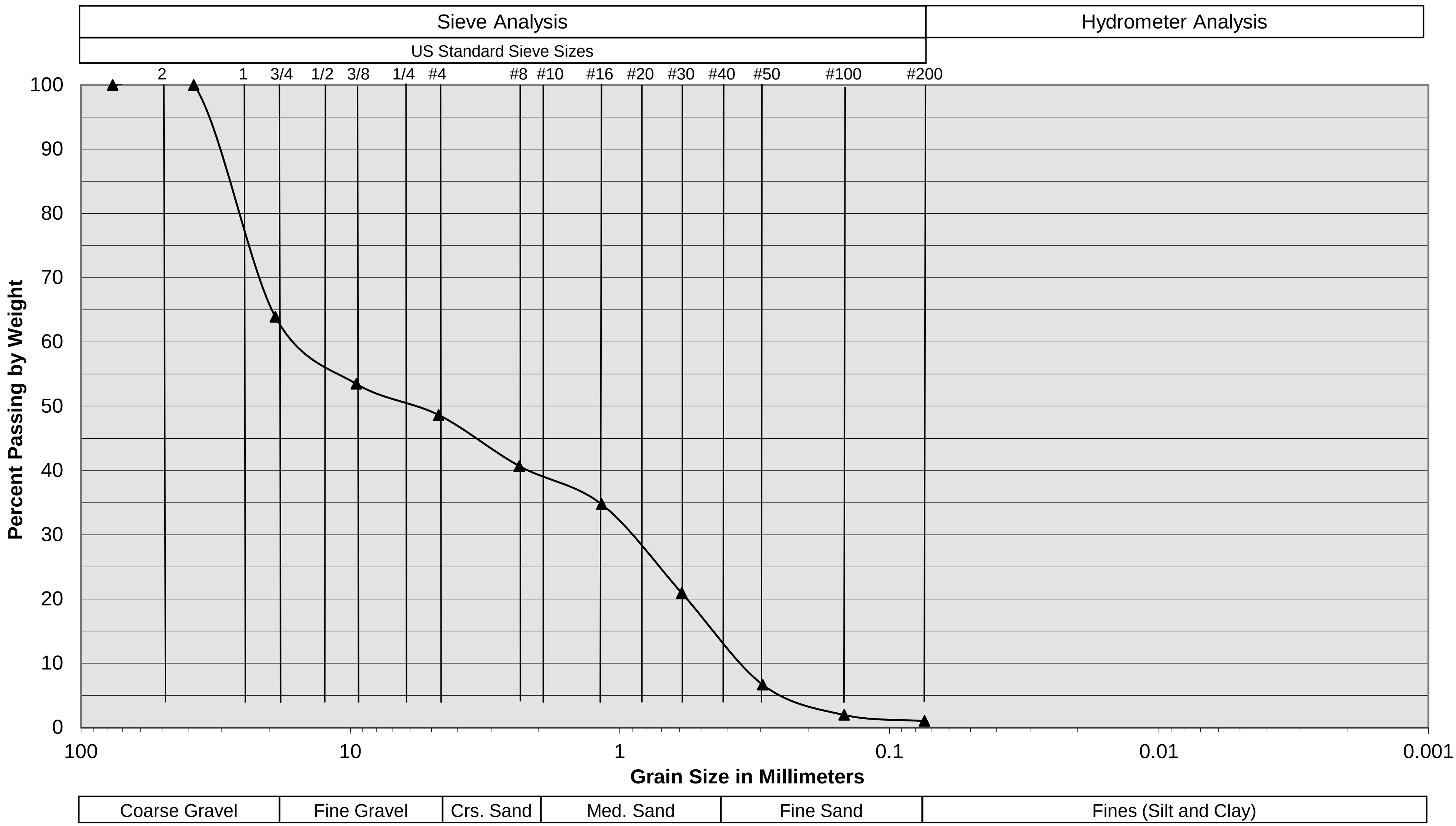
Infiltration Test No: I-2

Constants	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

				Flow Readings				Infiltration Rates			
Test Interval		Time (hr)	Interval **Elapsed** (min)	Inner Ring (ml)	Ring Flow (cm^3)	Annular Ring (ml)	Space Flow (cm^3)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:52 AM	0	0	1050	0	8000	210.03	533.40	82.69	210.00
	Final	9:56 AM	**4**	1050		8000					
2	Initial	9:57 AM	4	0	1200	0	6500	24.67	44.54	9.71	17.54
	Final	10:01 AM	**9**	1200		6500					
3	Initial	10:02 AM	4	0	1300	0	6300	26.73	43.17	10.52	17.00
	Final	10:06 AM	**14**	1300		6300					
4	Initial	10:07 AM	4	0	1300	0	6400	26.73	43.86	10.52	17.27
	Final	10:11 AM	**19**	1300		6400					
5	Initial	10:12 AM	4	0	1300	0	6300	26.73	43.17	10.52	17.00
	Final	10:16 AM	**24**	1300		6300					
6	Initial	10:17 AM	4	0	1300	0	6500	26.73	44.54	10.52	17.54
	Final	10:21 AM	**29**	1300		6500					
7	Initial	10:22 AM	4	0	1300	0	6500	26.73	44.54	10.52	17.54
	Final	10:26 AM	**34**	1300		6500					
8	Initial	10:28 AM	4	0	1300	0	6400	26.73	43.86	10.52	17.27
	Final	10:32 AM	**40**	1300		6400					
9	Initial	10:33 AM	4	0	1350	0	6400	27.75	43.86	10.93	17.27
	Final	10:37 AM	**45**	1350		6400					
10	Initial	10:39 AM	4	0	1300	0	6500	26.73	44.54	10.52	17.54
	Final	10:43 AM	**51**	1300		6500					

Grain Size Distribution

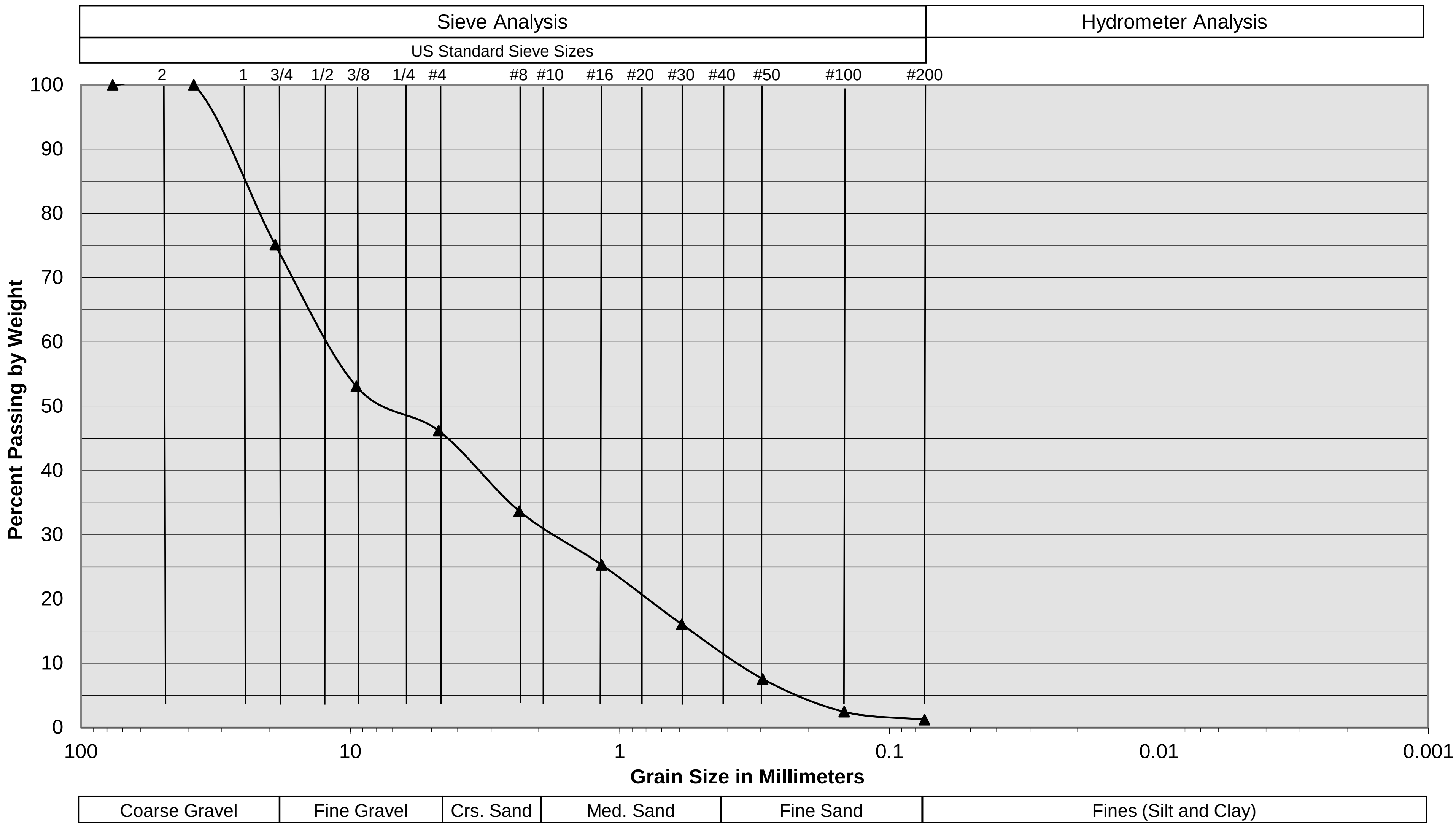


Sample Description	I-1 @ 9 feet
Soil Classification	Light Gray Sandy fine to coarse Gravel, occasional coarse Sand, trace Silt

Proposed Warehouse
Irwindale, California
Project No. 20G105-2
PLATE C-1

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL A California Corporation

Grain Size Distribution



Sample Description	I-2 @ 9.5 feet
Soil Classification	Light Gray Sandy fine to coarse Gravel, occasional fine Sand

Proposed Warehouse
Irwindale, California
Project No. 20G105-2
PLATE C-2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

August 30, 2021

Rexford Industrial Reality, Inc.
333 City Boulevard West, Suite 705
Orange, California 92868

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Attention: Mr. Nick Kreuter, MBA
Project Manager

Project No.: **20G105-3**

Subject: **Response to Third-Party Geotechnical Review**
Proposed Warehouse
4416 Azusa Canyon Road
Irwindale, California

References: Geotechnical Investigation, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, prepared for Rexford Industrial, by Southern California Geotechnical, Inc. (SCG), SCG Project No. 20G105-1.

Results of Infiltration Testing, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, prepared for Rexford Industrial, prepared by SCG, SCG Project No. 20G105-2, dated February 13, 2020.

Third-Praty Review of Southern California Geoptechnical Reports Dates February 13 and February 14, 2020, Proposed Industrial Development, 4116 Azusa Canyon Road, Irwindale, California, prepared by LGC, Geotechnical, Inc., LGC Project No. 20249-01, dated May 11, 2021.

Mr. Kreuter:

In accordance with your request, this letter presents our response to the above referenced third-party geotechnical review prepared by LGC Geotechnical, Inc. (LGC). This review was performed for the geotechnical report and infiltration testing report that we have previously prepared for the proposed development and the subject site (Reference Nos. 1 and 2, respectively). We have duplicated each of the comments by LGC below, for the geotechnical and infiltration testing reports followed by our response.

Third Party Review Comments for Geotechnical Investigation Report

LGC No. 1: *Subsurface explorations for the geotechnical evaluation and infiltration evaluation were performed via open trench excavations to maximum depths of approximately 9 feet and 10 feet, respectively. It is reasonable to assume the influence of building foundations (e.g., loading dock wall footings, column footings, etc.) will influence/load native soils deeper than 10 feet below existing grade and that the infiltration of stormwater will percolate into soils deeper than 10 feet. The lack of subsurface data to depths to/beyond the anticipated influence of the proposed building foundations should be justified. Additional field work (i.e., deeper borings)* *and laboratory testing are suggested to confirm the preliminary subsurface assumptions and geotechnical recommendations.*

SCG: The near surface soils at this site consist of gravelly well-graded sands with occasional to extensive cobble and Boulder content. Based on our previous experience with other projects near the subject site, it is not feasible to drill borings using a conventional drilling rig equipped with standard hollow-stem augers in these soils due to the gravel, cobble, and boulder content. For other projects where similar cobble and boulder containing soils were anticipated (for which liquefaction evaluation was required, and/or for larger structures) we have explored to greater depths using an air rotary drill rig equipped with a Becker hammer. However, we did not think that the expense of such a rig was warranted for a job of this size and scope. Based on our knowledge of nearby sites, we understand that similar soils consisting of well-graded gravelly sands with cobbles and boulders are present to depths extending much deeper than the depth of the anticipated foundation influence zones.

Based on our knowledge of nearby sites, we expect that the native alluvium directly beneath the depths explored during our investigation is very similar to the native soils that were explored in our backhoe-excavated test pits. Based on this expectation and the type of structure proposed for this project, we do not plan to perform additional subsurface exploration for this project.

LGC No. 2: *The potential geotechnical restraints or hazards, if any, associated with proximity of the subject site to the deep excavation known as the adjacent Olive Pit mine should be addressed.*

SCG: The proposed structure at this site will consist of a new warehouse building of concrete tilt-up construction, supported on conventional shallow foundations. Based on the anticipated foundation loads, the lateral extent of foundation influence will not significantly extend beyond the area of the proposed structure. Because the proposed structure will be located more than 100 feet from the mine site, we do not anticipate any significant hazard related to the Olive Pit mine.

LGC No. 3: *The potential impacts to adjacent (offsite) properties, structures and improvements as a result of site grading and construction and additional recommendations to protect these offsite improvements should be addressed, as necessary.*

SCG: Grading and foundation plans for the proposed development have not yet been provided to our office. At the time of our grading plan review, we typically provide additional recommendations for new screen walls located along property lines. Where the full lateral extent of the recommended remedial grading cannot be performed, we typically recommend that new screen walls be redesigned for a reduced allowable foundation bearing pressure. Depending on the extent of the remedial grading that can be performed, we would typically recommend that screen wall foundations be redesigned for a maximum allowable bearing pressure of 1,500 to 2,000 pounds per square foot. At the time of our grading and foundation plan reviews for this project, we will review new screen wall plans and determine if a reduced allowable bearing pressure is warranted.

At the time of our grading plan review, we will also review any available utility and foundation plans to determine if any additional grading or construction recommendations are necessary. Excavations near property lines may require the use of shoring or specialized grading techniques.

LGC No. 4: *The potential for hydro collapse of the dry to damp granular alluvial soils should be addressed.*

SCG: For virtually all new building projects, we attempt to obtain relatively undisturbed samples for consolidation/collapse testing. However, the near-surface soils at this site contain large particles such as coarse gravel, cobbles, and boulders. Therefore, it was not practical to obtain any relatively undisturbed samples of the near-surface native alluvium for collapse testing.

Based on the presence of fine to coarse gravel, cobbles, and boulders, we expect that the near-surface native alluvial soils at this site were deposited during a high energy flow, and possess high relative densities and low void ratios. Furthermore, during subsurface exploration, we did not identify any apparent porosity in the native alluvium encountered in our test pits. Based on these considerations, we expect that the collapse potential of the near surface native alluvium at this site is relatively low.

Any variable density artificial fill materials which may possess some potential for collapse will be removed from the proposed building area and replaced as compacted structural fill.

LGC No. 5: *Expansion potential laboratory testing should be performed at the completion of grading to verify the preliminary assumptions.*

SCG: We concur. However, we do not anticipate that the near surface soils at this site possess significant potential for expansion, as only "trace" or "occasional" clay content was observed in the artificial fill materials at the trenches. The near surface alluvium at this site consists of well graded granular soils which are considered to be non-expansive based on their lack of any appreciable clay content.

<u>Third Party Review Comments for Geotechnical Investigation Report</u>

LGC No. 1: *Subsurface explorations for the geotechnical evaluation and infiltration evaluation were performed via open trench excavations to maximum depths of approximately 9 feet and 10 feet, respectively. It is reasonable to assume the influence of building foundations (e.g., loading dock wall footings, column footings, etc.) will influence/load native soils deeper than 10 feet below existing grade and that the infiltration of stormwater will percolate into soils deeper than 10 feet. The lack of subsurface data to depths beyond the proposed bottom of the infiltration system should be justified. Additional field work (i.e., deeper borings) and laboratory* *testing are suggested to confirm the preliminary subsurface assumptions and geotechnical recommendations.*

SCG: Please see our response to Item No. 1, above.

Additionally, for most projects we would typically drill borings to depths greater than the proposed invert elevation of the stormwater disposal system in order to determine if the conditions below the proposed system are similar to the soils being tested at the system bottom. Such comparison is useful to determine if we can expect the infiltration characteristics to be similar to those soils at the test depths. Deeper borings are also typically performed in order to rule out the presence of groundwater within 10 feet of the bottom of the system. However, as discussed above, it was not feasible to drill borings at this site using conventional drilling equipment, and it was not feasible to excavate deeper trenches at this site without significant benching and the use of larger equipment.

As discussed above, based on our knowledge of other sites in the area, we expect that the native alluvial soils located directly beneath the proposed infiltration system will be very similar to the native alluvial soils encountered in our backhoe-excavated test pits. We expect that the soils located directly below the system bottom will consist of well-graded granular soils with relatively high infiltration rates. Based on our research of historic high groundwater levels (discussed in Section 4.2 of the referenced geotechnical report), we expect that the groundwater table is located more than 100 feet below the bottom of the proposed system.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

REGISTERED PROFESSIONAL ENGINEER DANIEL W. NIELSEN No. 3166 GEOTECHNICAL STATE OF CALIFORNIA

Daniel W. Nielsen, GE 3166
Senior Engineer

Distribution: (1) Addressee

Enclosures: Geotechnical Review Sheet (4 pages)

May 11, 2021 Project No. 20249-01

Ms. Dina El Chammas
Placeworks
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707

Subject: ***Third-Party Review of Southern California Geotechnical Reports Dated February 13, 2020 and February 14, 2020, Proposed Industrial Development, 4116 Azusa Canyon Road, Irwindale, California***

Introduction

In accordance with your request, LGC Geotechnical, Inc. has prepared this third-party review of the referenced geotechnical reports for the proposed industrial development located at 4116 Azusa Canyon Road, Irwindale, California. As part of our review, we conducted a site reconnaissance visit on April 15, 2021.

Project Overview

The subject site is currently occupied by an existing industrial building, loading docks, parking areas, driveways, landscaping, miscellaneous improvements and a perimeter fence. It is our understanding the site is no longer operational. Vegetation was found throughout the site growing within cracks in the asphalt concrete pavement and unpaved areas. Extensive cracking of the asphalt concrete was observed. The building is a single level structure constructed with masonry block and tilt-up panel walls. The exterior loading dock is partially covered with a roof. Minor to significant cracking of the interior floor slabs was observed.

To the north of the site is a concrete lined open channel known as Big Dalton Wash, to the east of the site are existing railroad tracks, to the south of the site is Los Angeles Street and to the west of the site is Azusa Canyon Road. A few hundred feet east of the site, beyond Azusa Canyon Road and Big Dalton Wash, is the Olive Pit mining quarry. The Olive Pit mining quarry began operations in 1925 and ceased operations in the mid 1970's. The bottom of the Olive Pit excavation is approximately 200 feet below the adjacent street grades and contains side slopes with inclinations ranging from approximately 2:1 (horizontal to vertical) up to approximately 1:1.

Subsurface conditions consist of varying thicknesses of older artificial fill (not documented) overlying native alluvial materials. Artificial fill was found to depths up to 7.5 feet below existing grade. Groundwater is not anticipated to impact development of the site. Historic high groundwater is estimated to be greater than approximately 130 feet below ground surface (CDMG, 1998). No active

131 Calle Iglesia, Suite 200, San Clemente, CA 92672 (949) 369-6141 www.lgcgeotechnical.com

faults are mapped as crossing through or nearby to the site. The site is not located in a state mapped liquefaction hazard zone (CDMG, 1999).

Based on the preliminary conceptual grading plans (G4, 2020), site development will consist of one approximately 129,000 square foot industrial building, a loading dock, on-grade parking areas and a water quality system. The proposed industrial building is anticipated to be at-grade concrete tilt-up structure.

Third Party Review of Southern California Geotechnical Results of Infiltration Testing, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, Project No. 20G105-2, dated February 13, 2020.

Comment No. 1 – Subsurface explorations for the geotechnical evaluation and infiltration evaluation were performed via open trench excavations to maximum depths of approximately 9 feet and 10 feet, respectively. It is reasonable to assume the influence of building foundations (e.g., loading dock wall footings, column footings, etc.) will influence/load native soils deeper than 10 feet below existing grade and that the infiltration of stormwater will percolate into soils deeper than 10 feet. The lack of subsurface data to depths beyond the proposed bottom of the infiltration system should be justified. Additional field work (i.e., deeper borings) and laboratory testing are suggested to confirm the preliminary subsurface assumptions and geotechnical recommendations.

Third Party Review of Southern California Geotechnical, Geotechnical Investigation, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, Project No. 20G105-1, dated February 14, 2020.

Comment No. 1 – Subsurface explorations for the geotechnical evaluation and infiltration evaluation were performed via open trench excavations to maximum depths of approximately 9 feet and 10 feet, respectively. It is reasonable to assume the influence of building foundations (e.g., loading dock wall footings, column footings, etc.) will influence/load native soils deeper than 10 feet below existing grade and that the infiltration of stormwater will percolate into soils deeper than 10 feet. The lack of subsurface data to depths to/beyond the anticipated influence of the proposed building foundations should be justified. Additional field work (i.e., deeper borings) and laboratory testing are suggested to confirm the preliminary subsurface assumptions and geotechnical recommendations.

Comment No. 2 – The potential geotechnical restraints or hazards, if any, associated with proximity of the subject site to the deep excavation known as the adjacent Olive Pit mine should be addressed.

Comment No. 3 – The potential impacts to adjacent (offsite) properties, structures and improvements as a result of site grading and construction and additional recommendations to protect these offsite improvements should be addressed, as necessary.

Comment No. 4 – The potential for hydro collapse of the dry to damp granular alluvial soils should be addressed.

Comment No. 5 – Expansion potential laboratory testing should be performed at the completion of grading to verify the preliminary assumptions.

<u>Closure</u>

Please note, this letter is based on our review of the referenced report and limited site visit only.

Our proposed services were performed to the general standard of care of geotechnical consulting in Southern California; no other warranty is expressed or implied. This geotechnical third-party review report has been prepared for the sole use of Placeworks, its subsidiaries and affiliates may be relied upon by any of same.

The opportunity of submitting this third-party review is sincerely appreciated. Should you have any questions, please do not hesitate to contact this office.

Sincerely,

LGC Geotechnical, Inc.

Ryan Douglas, PE, GE 3147
Project Engineer

RLD/BPP/amm

Attachment: References

Distribution: (1) Addressee (electronic copy)

References

California Division of Mines and Geology (CDMG) 1997, Geologic Map of the Baldwin Park 7.5-Minute Quadrangle, Los Angeles County, California, Open File Report 98-30, dated 1997.

________, 1998, State of California Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 98-13, dated 1998.

________, 1999, State of California Seismic Hazard Zones, Baldwin Park Quadrangle, Official Map, scale: 1:24,000, dated March 25, 1999.

The G4 Group (G4), 2020, Conceptual Grading and Drainage Plans, 4416 Azusa Canyon Road, Irwindale, California, dated December 7, 2020.

Historic Aerials, 2021, HistoricAerials.com: Aerial Photographs and Topographic Maps by Netronline, retrieved April 28, 2021.

Southern California Geotechnical (So Cal Geo), 2020a, Results of Infiltration Testing, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, Project No. 20G105-2, dated February 13, 2020.

________, 2020b, Geotechnical Investigation, Proposed Warehouse, 4416 Azusa Canyon Road, Irwindale, California, Project No. 20G105-1, dated February 14, 2020.