SERRAMONTE DEL REY CAMPUS REDEVELOPMENT PROJECT AIR QUALITY AND GREENHOUSE GAS ASSESSMENT

Daly City, California



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INTRODUCTION

The purpose of this report is to address air quality, community health risk, and greenhouse gas (GHG) impacts associated with the proposed mixed-use Serramonte Del Rey Campus Redevelopment project located in Daly City, California. The air quality and GHG impacts from this project would be associated with demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutants and GHG emissions associated with construction and operation of the project were predicted using appropriate models. In addition, the potential project health risk impacts (includes construction and operation) and the impact of existing toxic air contaminant (TAC) sources affecting the nearby and proposed sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

PROJECT DESCRIPTION

The proposed Serramonte Del Rey Campus Redevelopment project consists of two primary components: (1) development of a new approximately 22-acre Serramonte Del Rey Precise Plan (Precise Plan) and (2) specific development proposals for the approximately 4.3-acre Parcel B of the new Precise Plan.

A Precise Plan was approved in 1985 for an area that includes the project site and extends south to Hickey Boulevard. The proposed Precise Plan would replace the 1985 Precise Plan for the project site area and would leave the original Precise Plan in place for the portion outside of the project area. The zoning and General Plan land use designation of the portion outside of the project area would also remain. The 1985 Precise Plan allowed up to 175 residential units and approximately 700,000 square feet of office space in the project site area.

The new Precise Plan would allow for the redevelopment of the project site area with up to 1,235 units of affordable and market-rate rental housing, up to 14,000 square feet of neighborhood-serving retail/commercial uses (in addition to 2,800 square feet for a Head Start childcare facility), and infrastructure improvements throughout the project area. Compared to the existing approved plan, the proposal would result in a net increase of 1,060 residential units and the elimination of office space. The new Precise Plan would require a General Plan Amendment from C-O (Commercial – Office) to C-MU (Commercial – Mixed Use). Table 1 below summarizes the proposed maximum development allowed per parcel, although the overall Precise Plan development totals would be as noted above, and less than the sum of what is possible on each parcel. Figure 1 shows the Precise Plan. The maximum development plan was analyzed in this assessment.

The Precise Plan would divide the project site into seven development parcels (with Parcel C subdivided into two smaller parcels) and additional street parcels with public access easements. Build-out of the site and division of parcels is anticipated to be over a ten-year period but could potentially extend up to 15 years. The proposed Precise Plan would also establish a new Planned Development District, consistent with the City's Municipal Code Chapter 17.28.

[1] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*, May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

Table 1. Development Maximum Per Parcel

Parcel Number	Maximum Residential Units[1]	Maximum Retail/Commercial [3] (square feet)
Parcel A[2]	122	0
Parcel B	210	8,000
Parcel C[5]	125	6,000[4]
Parcel D	270	6,000
Parcel E	330	6,000
Parcel F	400	6,000

1. Shows maximum residential units per parcel; however, the total amount of residential units across all parcels shall not exceed 1,235 units.
2. Parcel A is currently under construction and was approved under a separate application
3. Parcels C-F may provide retail/commercial space in addition to the 8,000 square feet assumed for Parcel B; however, the total amount across all parcels shall not exceed 14,000 square feet
4. Parcel C is permitted to build up to 2,800 square feet of childcare facilities in addition to the overall retail/commercial square footage
5. Parcel C would be subdivided into two parcels (C1 and C2)

Figure 1. Serramonte Del Rey Precise Plan and 1,000-foot Influence Area



Parcel A Development Project

The Jefferson Union High School District (JUHSD) Faculty and Staff Housing project is currently under construction on Parcel A of the proposed Precise Plan. The Parcel A development project was approved by the City of Daly City in January 2020 and consists of 122 multi-family units for JUHSD faculty, staff, and their families on an approximately 3.9-acre site. While the Parcel A development project was approved under a separate application, the 122 residential units are included in the proposed Precise Plan's total unit count of 1,235 dwelling units. Construction and operational emissions associated with Parcel A were previously evaluated.

Parcel B Development Project

The specific Parcel B development project would be located on the approximately 4.3-acre Parcel B, which is currently developed with surface parking and a one-story temporary education building in the southeast corner of the parcel. This proposed development would demolish the existing building and surface parking on-site and construct a seven-story (up to 85 feet in height), mixed-use building with 201 residential units and approximately 8,000 square feet of retail space. The building would include two levels of parking (one level of below grade parking as viewed from Entry Drive). The lower level of the parking garage would provide 212 parking spaces serving the residential units. An additional 133 parking spaces would be provided on the ground-floor: 43 reserved for retail customers and leasing and the remainder reserved for residential parking.

Parcels C, D, E, and F Development Projects

Specific development plans are not currently available for Parcels C, D, E, or F. The remaining on-site existing buildings and surface parking would be demolished. Based on provided land use information, Parcels C and D together would be located on approximately 15 acres and contain 340 mid-rise units, 2,800 square feet for the Head Start childcare facility, 3,000 square feet of retail use, 175,000 square feet of enclosed parking use, and 46 parking lot spaces. Parcels E and F together would be located on approximately 8 acres and contain 572 mid-rise units, 1 acre of park use, 3,000 square feet of retail use, 290,000 square feet of enclosed parking use, and 26 parking lot spaces.

Site Access and Circulation

Vehicular access to the Parcel B site would be provided via a new driveway and the existing entry drive on Serramonte Boulevard. The new driveway would be located east of the existing entry drive and provide direct access to the lower parking level. An entry drive would run north-south between Parcels A and B from the existing entry driveway along Serramonte Boulevard. An entrance to the proposed ground-floor parking (i.e., the upper level of the parking garage) would be located along this new road. A new road serving Parcels A and B would run west-east along the southern boundaries of Parcels A and B. A new multi-use pathway would be constructed around the perimeter of the proposed mixed-use building and Parcel B.

The proposed development project would also improve the intersection at Serramonte Boulevard and the existing project driveway. The development project would signalize the intersection and add pedestrian improvements (i.e., crosswalks, pedestrian signals) to serve the future residents on

Parcel B, as well as future residents on Parcel A. Bike lanes would also be provided on Serramonte Boulevard along the project frontage.

Open Space and Landscaping

The proposed Parcel B development project would include three components of open space to be used by the public: 1) approximately 22,300 square-foot public park that would include a large grass area and playground; 2) the first phase of the recreational trail (approximately 6,800 square feet) that would be located in the southeast corner of Parcel B; and 3) open space for public use at the retail plaza (approximately 7,000 square feet) facing Entry Drive. Open space serving the residents of the building would include both the ground floor terrace and the roof terrace, up to 20 private balconies for individual units, and an approximately 20,300 square-foot courtyard located on the roof of the parking deck of the mixed-use building which includes amenities such as a hot tub, fire pit, lounge furniture, and an outdoor kitchen. The open space reserved for residential use plus the retail open space for public use at Parcel B would exceed the City's requirement for open space of 150 square feet per unit and is consistent with the proposed Precise Plan.

Emergency Generators

The proposed development project would include four emergency back-up generators located within Parcels B, D, E and F. All generators would have a power rating of approximately 750 kilowatts (kW) powered by 1,005 horsepower (HP) diesel engines. The locations of the generators were not known at the time of this study; therefore, the generators were assumed to be located in the center of the ground floor of each identified parcel.

Construction Schedule

As noted previously, full build out of the entire Precise Plan would take approximately ten years but could take up to 15 years. Construction of the proposed Parcel B development project is expected to occur in Phase 1 and last approximately 24 months. Construction of the proposed Parcels C and D development project is expected to occur in Phase 2, start after the conclusion of Phase 1, last approximately 24 months. Construction of the proposed Parcels E and F development project is expected to occur in Phase 3, start after the conclusion of Phase 4, last approximately 24 months. The proposed Parcel B development project (Phase 1) would result in a net export of approximately 31,930 cubic yards (cy) of soil; however, the development project is proposing to store that soil on-site for use during development of the rest of the Precise Plan (i.e., Parcels C through F). The proposed Parcels C & D development project (Phase 2) would result in a net import of approximately 17,340-cy of soil. The proposed Parcels E & F development project Phase 3) would result in a net export of approximately 9,320-cy of soil.

AIR POLLUTANTS AND CONTAMINANTS

Air pollutants are governed by multiple federal and state standards to regulate and mitigate health impacts. At the federal level, there are six criteria pollutants for which National Ambient Air Quality Standards (NAAQS) have been established: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), suspended particulate matter (PM: $PM_{2.5}$ and PM_{10}), and sulfur dioxide (SO_2). California sets standards, similar to the NAAQS as California Ambient Air Quality

Standards (CAAQS). Health effects of the primary criteria pollutants (i.e., the NAAQS) and their potential sources are described below and summarized in Table 2. Note that California includes pollutants or contaminants that are specific to certain industries and not associated with this project. These include hydrogen sulfide and vinyl chloride.

Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_X). The main sources of ROG and NO_X, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, shortness of breath, and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

Carbon monoxide is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. While CO transport is limited, it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal.

Nitrogen Dioxide

Nitrogen Dioxide is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contribute to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection. On January 22, 2010 the U.S. Environmental Protection Agency (EPA) strengthened the health-based NAAQS for NO_2.

Sulfur Dioxide

Sulfur dioxide is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Particulate Matter

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are larger than 2.5 microns but smaller than 10 microns (PM_{10}). $PM_{2.5}$ refers to fine suspended particulate matter with an aerodynamic diameter of 2.5 microns or less that is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as by-products of fuel combustion, through abrasion, such as tire or brake lining wear, or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Lead

Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufactures.

Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the EPA and the California Air Resources Board (CARB). Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high volume transit centers, or schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Table 2. Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood functions and nerve con-struction. • Behavioral and hearing problems in children.
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardiorespiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.
Toxic Air Contaminants	• Cars and trucks, especially diesels. • Industrial sources such as chrome platers. • Neighborhood businesses such as dry cleaners and service stations. • Building materials and product.	• Cancer. • Chronic eye, lung, or skin irritation. • Neurological and reproductive disorders.

Source: CARB, 2009. ARB Fact Sheet: Air Pollution and Health, see: https://www.arb.ca.gov/research/health/fs/fs1/fs1.htm accessed May 1, 2018

SETTING

The project is located in San Mateo County, which is part of the San Francisco Bay Area Air Basin. The Air Basin includes the counties of San Francisco, Santa Clara, San Mateo, Marin, Napa, Contra Costa, and Alameda, along with the southeast portion of Sonoma County and the southwest portion of Solano County.

This Project is within the jurisdiction of the BAAQMD. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants, and the number of days during which the region exceeds air quality standards, have fallen dramatically. Exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Local Climate and Air Quality

Air quality is a function of both local climate and local sources of air pollution. Air quality is the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment. Climate and topography are major influences on air quality.

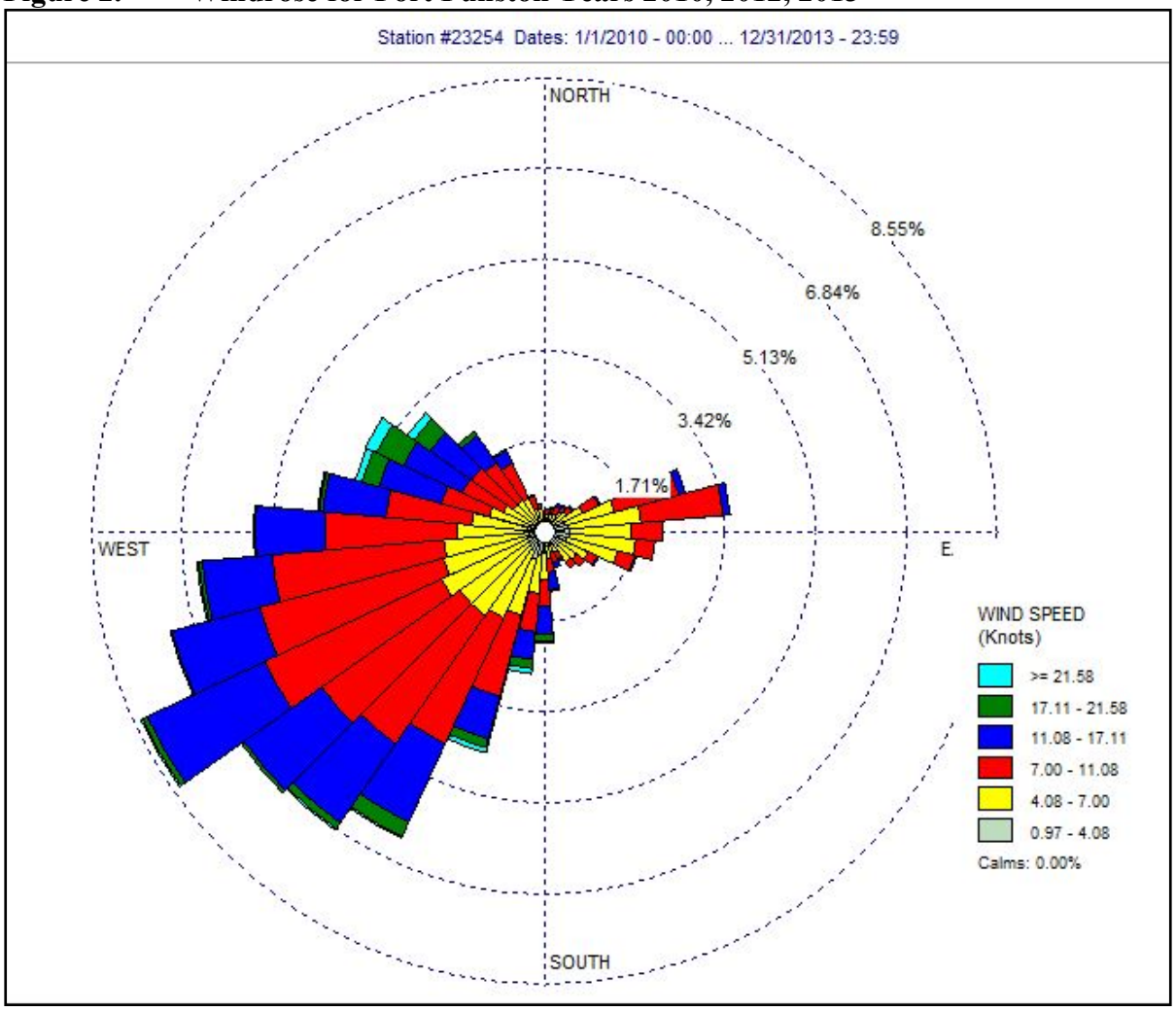
Climate and Meteorology

During the summer, mostly clear skies result in mild to warm daytime temperatures and cool nights in the San Francisco Peninsula. Winter temperatures are mild, except for very cool but generally frost-less mornings. Further inland where the moderating effect of the bay is not as strong, temperature extremes are greater. Rainfall amounts are modest, ranging from 13 inches in the lowlands to over 20 inches in the hills. Wind patterns are influenced by local terrain, with a northwesterly breeze in response to the sea breeze infiltrating San Francisco Bay typically developing during the daytime. Winds are usually stronger in the spring and summer. The southerly winds experienced are more common in late fall and winter. The wind rose shown in Figure 2 describes the patterns and frequency of winds at the project site. Wind data were collected from Fort Funston for the years 2010, 2012, and 2013.

Air Pollution Potential

Ozone and fine particle pollution, or $PM_{2.5}$, are the major regional air pollutants of concern in the San Francisco Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution in the winter. Most of Santa Clara County is well south of the cooler waters of the San Francisco Bay and far from the cooler marine air which usually reaches across San Mateo County in summer. Ozone frequently forms on hot summer days when the prevailing seasonal northerly winds carry ozone precursors southward across the county, causing health standards to be exceeded. Santa Clara County experiences many exceedances of the $PM_{2.5}$ standard each winter. This is due to the high population density, wood smoke, industrial and freeway traffic, and poor wintertime air circulation caused by extensive hills to the east and west that block wind flow into the region.

Figure 2. Windrose for Fort Funston Years 2010, 2012, 2013



Notes: Based on data provided by BAAQMD

Attainment Status Designations

The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for all state standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that data does not support either an attainment or nonattainment status. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

Table 3 shows the state and federal standards for criteria pollutants and provides a summary of the attainment status for the San Francisco Bay Area with respect to national and state ambient air quality standards.

Table 3. NAAQS, CAAQS, and San Francisco Bay Area Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
	1-Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	Annual Mean	0.030 ppm (57 mg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
	1-Hour	0.18 ppm (338 µg/m^3)	Attainment	0.100 ppm	Unclassified
Ozone (O_3)	8-Hour	0.07 ppm (137 µg/m^3)	Nonattainment	0.070 ppm	Nonattainment
	1-Hour	0.09 ppm (180 µg/m^3)	Nonattainment	Not Applicable	Not Applicable
Suspended Particulate Matter (PM_{10})	Annual Mean	20 µg/m^3	Nonattainment	Not Applicable	Not Applicable
	24-Hour	50 µg/m^3	Nonattainment	150 µg/m^3	Unclassified
Suspended Particulate Matter ($PM_{2.5}$)	Annual Mean	12 µg/m^3	Nonattainment	12 µg/m^3	Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m^3	Nonattainment
Sulfur Dioxide (SO_2)	Annual Mean	Not Applicable	Not Applicable	80 µg/m^3 (0.03 ppm)	Attainment
	24-Hour	0.04 ppm (105 µg/m^3)	Attainment	365 µg/m^3 (0.14 ppm)	Attainment
	1-Hour	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Attainment
Lead (Pb) is not listed in the above table because it has been in attainment since the 1980s. ppm = parts per million, mg/m^3 = milligrams per cubic meter, µg/m^3 = micrograms per cubic meter					

Source: Bay Area Air Quality Management District, 2017. *Air Quality Standards and Attainment Status.* January 5.

Existing Air Pollutant Levels

BAAQMD monitors air pollution at various sites within the Bay Area. The closest air monitoring station (10 Arkansas Street) that monitored O_3, CO, NO, NO_2, PM_{10}, and $PM_{2.5}$ over the past 5 years (2015 through 2019) is in the City of San Francisco, approximately 8 miles northeast of the project site. The data shows that during the past few years, the project area has exceeded the state and/or federal PM_{10} and $PM_{2.5}$ ambient air quality standards. Table 4 lists air quality trends in data collected for the past 5 years and published by the BAAQMD and CARB, which is the most recent time-period available. Ozone standards (includes 1-hr concentration and 8-hr concentration) were exceeded on 0 to 1 days annually in San Francsico. Measured 24-hour PM_{10} and $PM_{2.5}$ concentrations are exceeded on 0 to 2 monitoring days in San Francsico (note these levels were influences by smoke from wildfires).

Table 4. Ambient Air Quality Concentrations from 2015 through 2019

Pollutant	Standard	2015	2016	2017	2018	2019
Ozone						
Max 1-hr concentration		85 ppb	70 ppb	87 ppb	65 ppb	91 ppb
No. days exceeded: CAAQS	90 ppb	0	0	0	0	0
Max 8-hr concentration		67 ppb	57 ppb	54 ppb	49 ppb	73 ppb
No. days exceeded: CAAQS	70 ppb	0	0	0	0	1
NAAQS	70 ppb	0	0	0	0	1
Carbon Monoxide						
Max 1-hr concentration		1.8 ppm	1.7 ppm	2.5 ppm	1.9 ppm	1.2 ppm
No. days exceeded: CAAQS	20 ppm	0	0	0	0	0
NAAQS	35 ppm	0	0	0	0	0
Max 8-hr concentration		1.3 ppm	1.1 ppm	1.4 ppm	1.6 ppm	1.0 ppm
No. days exceeded: CAAQS	9.0 ppm	0	0	0	0	0
NAAQS	9 ppm	0	0	0	0	0
PM_{10}						
Max 24-hr concentration		47 µg/m^3	29 µg/m^3	77 µg/m^3	43 µg/m^3	42 µg/m^3
No. days exceeded: CAAQS	50 µg/m^3	0	0	2	0	0
NAAQS	150 µg/m^3	0	0	0	0	0
Max annual concentration		19.2 µg/m^3	17.0 µg/m^3	22.0 µg/m^3	20.1 µg/m^3	14.7 µg/m^3
No. days exceeded: CAAQS	-	-	-	-	-	-
$PM_{2.5}$						
Max 24-hr concentration		35.4 µg/m^3	19.6 µg/m^3	49.9 g/m^3	177.4 µg/m^3	25.4 µg/m^3
No. days exceeded: NAAQS	35 µg/m^3	0	0	7	14	0
Annual Concentration		7.6 g/m^3	7.5 µg/m^3	9.7 µg/m^3	11.7 µg/m^3	7.7 µg/m^3
No. days exceeded: CAAQS	12 µg/m^3	-	-	-	-	-
NAAQS	12 µg/m^3	-	-	-	-	-
Nitrogen Dioxide						
Max 1-hr concentration		71 ppb	58 ppb	73 ppb	69 ppb	61 ppb
No. days exceeded: CAAQS	0.18 ppm	0	0	0	0	0
NAAQS	0.100 ppm	0	0	0	0	0
Annual Concentration		12 ppb	11 ppb	11 ppb	11 ppb	10 ppb
No. days exceeded: CAAQS	0.030 ppm	-	-	-	-	-
NAAQS	0.053 ppm	-	-	-	-	-

Source: Bay Area Air Quality Management District, 2020, Web: https://www.baaqmd.gov/about-air-quality/air-quality-summaries. California Air Resource Board, 2020, Web: https://arb.ca.gov/adam/select8/sc8start.php

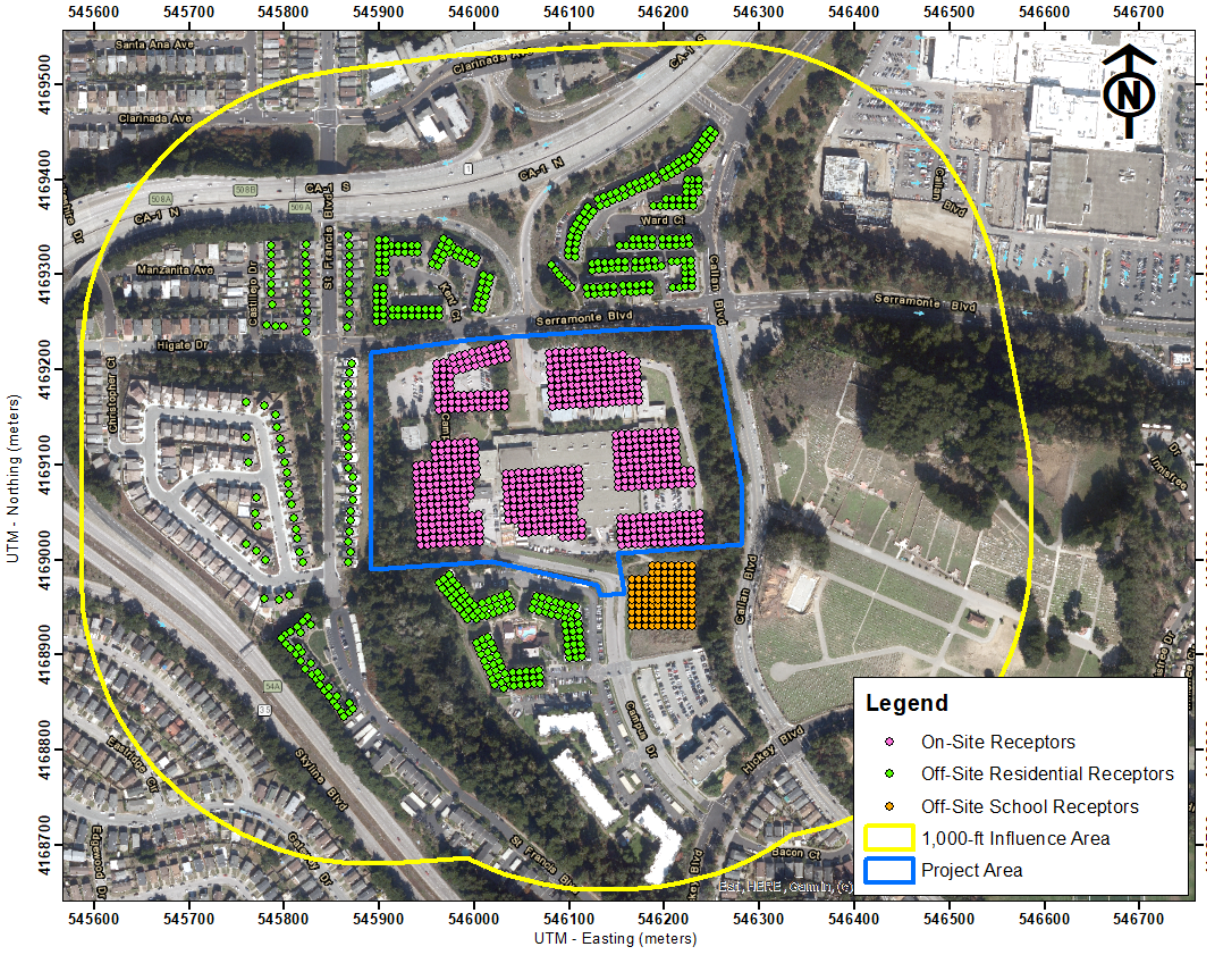
Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children.

Receptors for this assessment included locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures). The project site is surrounded by single- and multi-family residential uses to the north, west, and south, the Summit Shasta High School to the

south, and a cemetery to the east. Project information indicates that construction would take approximately 71 to 73 months to complete in three phases. Therefore, occupancy of the first phase could occur by 2025. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions. The adjacent high school would include students that would have child exposure factors to project emissions. The project would include new residential dwellings and the Head Start childcare facility that are considered sensitive receptors. Figure 3 shows existing and future sensitive receptors.

Figure 3. Serramonte Del Rey Precise Plan Project Site, Sensitive Receptors and 1,000-foot Area



REGULATORY FRAMEWORK

Pursuant to the Federal Clean Air Act (FCAA) of 1970, the EPA established the NAAQS. The NAAQS were established for major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both the EPA and the CARB have established ambient air quality standards for common pollutants: CO, O_3, NO_2, SO_2, Pb, and PM. 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 public with a reasonable margin of safety. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each criteria pollutant.

Federal Air Quality Regulations

At the federal level, the EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the FCAA, which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required EPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implement Plan (SIP). Federal standards include both primary and secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.[2] The Federal Clean Air Act Amendments of 1990 (FCAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA has responsibility to review all state SIPs to determine conformity with the mandates of the FCAAA and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area which imposes additional control measures. Failure to submit an approvable SIP or to implement the Plan within the mandated timeframe may result in the application of sanctions on transportation funding and stationary air pollution sources in the air basin.

The 1970 FCAA authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The FCAA Amendments of 1990 changed deadlines for attaining NAAQS as well as the remedial actions required of areas of the nation that exceed the standards. Under the FCAA, state and local agencies in areas that exceed the NAAQS are required to develop SIPs to show how they will achieve the NAAQS by specific dates. The FCAA requires that projects receiving federal funds demonstrate conformity to the approved SIP and local air quality attainment Plan for the region. Conformity with the SIP requirements would satisfy the FCAA requirements.

State Air Quality Regulations

The CARB is the agency responsible for the coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA, adopted in 1988. The CCAA requires that all air districts in the state achieve and maintain the CAAQS by the earliest practical date. The CCAA specifies that districts should focus on reducing the emissions from transportation and air-wide emission sources and provides districts with the authority to regulate indirect sources.

[2] See: U.S. Environmental Protection Agency, Web: https://www.epa.gov/criteria-air-pollutants/naaqs-table, Accessed 13 August 2020

CARB is also responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. CARB is primarily responsible for statewide pollution sources and produces a major part of the SIP. Local air districts provide additional strategies for sources under their jurisdiction. CARB combines this data and submits the completed SIP to the EPA.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS (which in many cases are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, and off-road vehicles.

California Clean Air Act

In 1988, the CCAA required that all air districts in the state endeavor to achieve and maintain CAAQS for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the state standards for these pollutants are more stringent than the national standards.

California Air Resources Board Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[3] CARB subsequently developed an Air Quality and Land Use Handbook[4] (Handbook) in 2005 that is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The 2005 CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds.

Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Plan Area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.

[3] California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.
[4] California Air Resources Board, 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

- Within 300 feet of gasoline fueling stations (note that new fueling stations utilize enhanced vapor recovery systems that substantially reduce emissions).
- Within 300 feet of dry-cleaning operations (note that dry cleaning with TACs is being phased out and will be prohibited in 2023).

Truck and Bus Regulation

CARB is actively enforcing heavy-duty diesel vehicle regulations that require fleets to replace or retrofit heavy-duty diesel vehicles, with full implementation of the program scheduled for January 1, 2023. Compliance with the program is generally considered vehicles equipped with a 2010 or newer engine model year. As of January 1, 2020, the DMV cannot register any vehicle that does not meet the requirements of the Truck and Bus Regulation.

Other CARB diesel programs affecting heavy-duty diesel vehicles include:

- Idling limits of no more than 5 minutes with special exceptions.
- Emission Control Labels must be affixed to engines of all commercial heavy-duty diesel vehicles, and must be legible as proof the engine, at minimum, meets U.S. federal emissions standards for the engine model year.
- The Periodic Smoke Inspection Program requires owners of California-based fleets of two or more diesel vehicles to perform annual smoke opacity tests and to keep records for at least two years for each vehicle.
- The Heavy-Duty Vehicle Inspection Program uses random roadside inspections to verify that diesel engines do not smoke excessively and are tamper-free.

Off-Road Vehicle and Equipment Regulations

CARB has also adopted and implemented regulations to reduce DPM and nitrogen oxides (NOx) emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NOx exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent Federal off-road equipment engine emission limits for new vehicles, is expected to substantially reduce emissions of DPM and NOx.

Fleet owners must report the vehicle and engine information for all vehicles within their fleets operating in California. Fleet owners must also report owner information. Fleet owners should report using DOORS, which is CARB's online reporting tool. CARB issues a unique Equipment Identification Number (EIN) that is assigned to each vehicle. The fleet owner must label their vehicles with the EIN.

Other CARB diesel programs affecting off-road vehicles and equipment include:

- Idling limits of no more than 5 minutes with special exceptions.

- Portable engines 50 hp or greater may require a permit or registration to legally operate. BAAQMD is responsible for taking enforcement action against individuals who own or operate portable equipment without a registration or permit.

Bay Area Air Quality Management District

The BAAQMD seeks to attain and maintain air quality conditions in the San Francisco Bay Area Air Basin (SFBAAB) through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. The clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. The BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by law.

Clean Air Plan

The BAAQMD is responsible for developing a Clean Air Plan which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD's 2017 Clean Air Plan is the latest Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_X), particulate matter and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan, which was adopted on April 19, 2017 by the BAAQMD's board of directors:

- Updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone;
- Provides a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan;
- Reviews progress in improving air quality in recent years; and
- Continues and updates emission control measures.

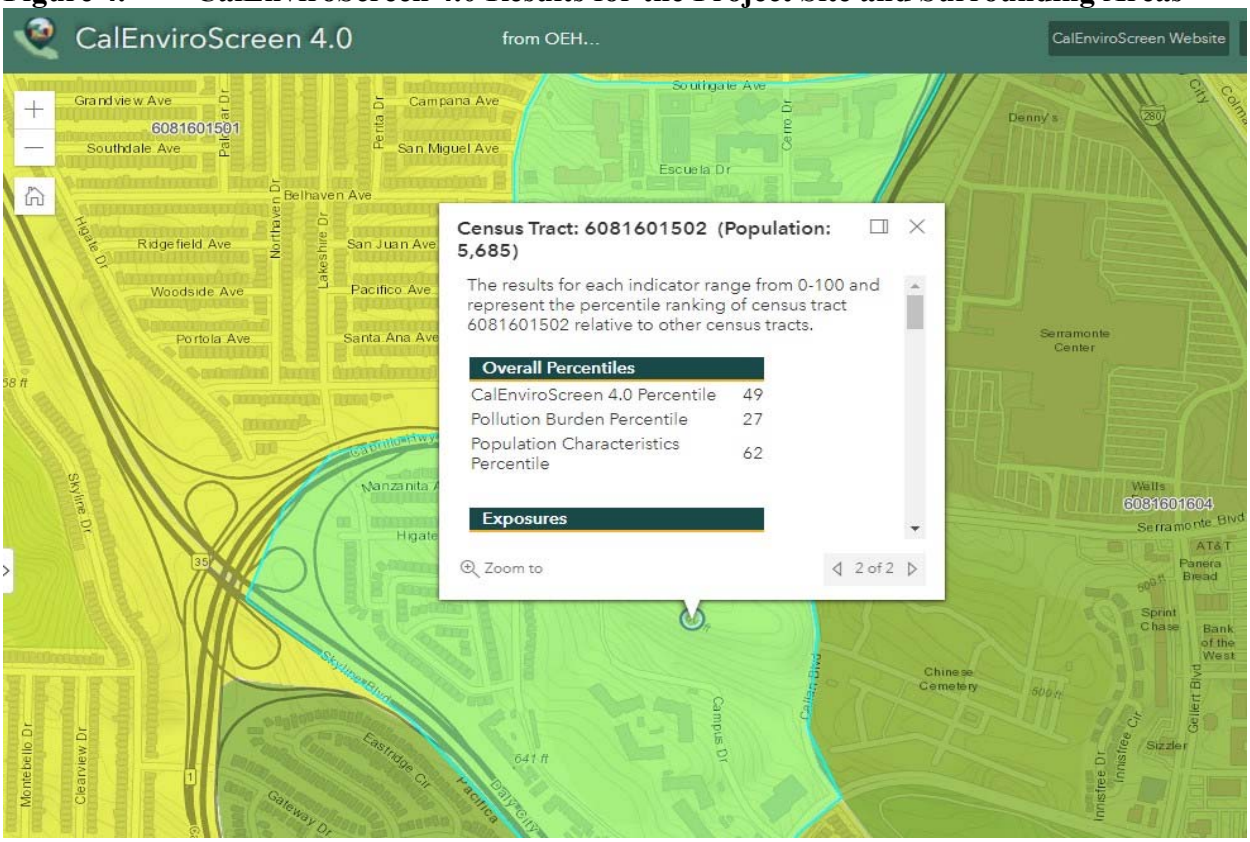
BAAQMD CARE Program

The Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.[5] The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses will be used to focus emission reduction measures in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. The BAAQMD has identified six communities as impacted: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo

[5] See BAAQMD: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program , accessed 2/18/2021.

Alto, and Eastern San Francisco. Recently, BAAQMD identifies an *overburdened* community as an area located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0, as having an overall CalEnviroScreen score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.[6] The project site is not within an identified overburdened community area. According to CalEnvirscreen, the census tracts containing the project site and environs within 1,000 feet of the project have an overall score of 22 to 49 (see Figure 4).

Figure 4. CalEnviroScreen 4.0 Results for the Project Site and Surrounding Areas



Planning Healthy Places

BAAQMD developed a guidebook that provides air quality and public health information intended to assist local governments in addressing potential air quality issues related to exposure of sensitive receptors to exposure of emissions from local sources of air pollutants. The guidance provides tools and recommends best practices that can be implemented to reduce exposures. The information is provided as recommendations to develop policies and implementing measures in city or county General Plans, neighborhood or specific plans, land use development ordinances, or into projects.

[6] See BAAQMD: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40 , accessed 2/9/2022.

BAAQMD California Environmental Quality Act Air Quality Guidelines

The BAAQMD California Environmental Quality Act (CEQA) Air Quality Guidelines[7] were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their CEQA Guidelines. In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a risk and hazards threshold for new receptors and modify procedures for assessing impacts related to risk and hazard impacts. A recent update to the Guidelines was published in May 2017.

Projects that have TAC emissions that could adversely affect sensitive receptors prepare health risk assessments to quantify the potential and, if appropriate, identify mitigation measures to reduce impacts. This report includes a health risk assessment that evaluates impacts form temporary project construction, long-term use of stationary equipment, and long-term traffic activity generated by the project.

BAAQMD Rules and Regulations

Combustion equipment associated with the proposed project that includes new diesel engines to power generators would establish new sources of particulate matter and gaseous emissions. Emissions would primarily result from the testing of the emergency backup generators. Certain emission sources would be subject to BAAQMD Regulations and Rules. The District's rules and regulations that may apply to project operation include:

- Regulation 1 – General Provisions
  - Rule 1-30: Public Nuisance
- Regulation 2 – Permits
  - Rule 2-1: General Requirements
  - Rule 2-2: New Source Review
  - Rule 2-5: New Source Review of Toxic Air Contaminants
- Regulation 6 – Particulate Matter and Visible Emissions
  - Rule 6-2: Commercial Cooking Equipment
  - Rule 6-3: Wood-Burning Devices
  - Rule 6-7: Odorous Substances
- Regulation 9 – Inorganic Gaseous Pollutants
  - Rule 9-1: Sulfur Dioxide
  - Rule 9-7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, And Process Heaters
  - Rule 9-8: Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines

[7] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

Permits

Rule 2-1-301 requires that any person installing, modifying, or replacing any equipment, the use of which may reduce or control the emission of air contaminants, shall first obtain an Authority to Construct (ATC).

Rule 2-1-302 requires that written authorization from the BAAQMD in the form of a Permit to Operate (PTO) be secured before any such equipment is used or operated.

Rule 2-1 lists sources that are exempt from permitting.

New Source Review

Rule 2-2, New Source Review (NSR), applies to all new and modified sources or facilities that are subject to the requirements of Rule 2-1-301. The purpose of the rule is to provide for review of such sources and to provide mechanisms by which no net increase in emissions will result.

Rule 2-2-301 requires that an applicant for an ATC or PTO apply Best Available Control Technology (BACT) to any new or modified source that results in an increase in emissions and has emissions of precursor organic compounds, non-precursor organic compounds, NOx, SO_2, PM_{10}, or CO of 10.0 pounds or more per highest day. Based on the estimated emissions from the proposed project, BACT will be required for NOx and PM emissions from the diesel-fueled generator engines.

Rule 2-5 applies to new and modified sources of TAC emissions. BAAQMD evaluates the TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. Toxics BACT (or TBACT) is applied to any new or modified source of TACs where the source risk is a cancer risk greater than 1.0 in one million and/or a chronic hazard index greater than 0.20. Permits are not issued for any new or modified source that has risks or net project risks that exceed a cancer risk of 10.0 in one million or a chronic or acute hazard index of 1.0.

BACT for Diesel Generator Engines

Since the generators will be used exclusively for emergency use during involuntary loss of power, the BACT levels listed for IC compression engines in the BAAQMD BACT Guidelines would apply. These are provided for two separate size ranges of diesel engines:

> I.C. Engine – Compression Ignition >50hp and <1,000hp: BAAQMD applies BACT 2 emission limits based on the ATCM for stationary emergency standby diesel engines larger than 50 brake-horsepower (BHP). NOx emission factor limit is subject to the CARB ACTM that ranges from 3.0 to 3.5 grams per horsepower hour (g/hp-hr). The PM (PM10 or PM2.5) limit is 0.15 g/hp-hr per CARB's ACTM.
>
> I.C. Engine – Compression Ignition >999hp: BAAQMD applies specific BACT emission limits for stationary emergency standby diesel engines equal or larger than 1,000 brake-

horsepower (BHP). NOx emission factor limit is 0.5 g/hp-hr. The PM (PM10 or PM2.5) limit is 0.02 g/hp-hr. POC (i.e., ROG) limits are 0.14 g/hp-hr.

Offsets

Rule 2-2-302 require that offsets be provided for a new or modified source that emits more than 10 tons per year of NOx or precursor organic compounds. It is not expected that emissions of any pollutant will exceed the offset thresholds. Thus, is not expected that offsets for the proposed project would be required.

Prohibitory Rules

Regulation 6 pertains to particulate matter and visible emissions. Although the engines will be fueled with diesel, they will be modern, low emission engines. Thus, the engines are expected to comply with Regulation 6.

Rule 6-3 applies to emissions from wood-burning devices. Effective November 1, 2016, no person or builder shall install a wood-burning device in a new building construction. Project plans do not depict fireplaces.

Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds when the District receives odor complaints. The regulation prohibits discharge of odorous substance that causes the ambient air at or beyond the property line to be odorous and to remain odorous after dilution with four parts of odor-free air and places limits on certain odorous compounds or family of compounds.

Rule 9-1 applies to sulfur dioxide. The engines will use ultra-low sulfur diesel fuel (less than 15 ppm sulfur) and will not be a significant source of sulfur dioxide emissions and are expected to comply with the requirements of Rule 9-1.

Rule 9-7 limits the emissions of NOx CO from industrial, institutional and commercial boilers, steam generators and process heaters. This regulation typically applies to boilers with a heat rating of 2 million British Thermal Units (BTU) per hour

Rule 9-8 prescribes NOx and CO emission limits for stationary internal combustion engines. Since the proposed engines will be used with emergency standby generators, Regulation 9-8-110 exempts the engines from the requirements of this Rule, except for the recordkeeping requirements (9-8-530) and limitations on hours of operation for reliability-related operation (maintenance and testing). The engines will not operate more than 50 hours per year, which will satisfy the requirements of 9-8-111.

Air Pollutants of Concern in the Bay Area

High ozone levels are caused by the cumulative emissions of ROG and NO_X. These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys

that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants in the Bay Area

Toxic air contaminants are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[8] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the state level, the CARB (a part of the California EPA) oversees regional air district activities and regulates air quality at the state level. The BAAQMD has published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[9] Projects that have TAC emissions that could adversely affect sensitive receptors prepare health risk assessments to

[8] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[9] Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines*. May.

quantify the potential and, if appropriate, identify mitigation measures to reduce impacts. This report includes a health risk assessment that evaluates impacts form temporary project construction, long-term use of stationary equipment, and long-term traffic activity generated by the project. The detailed health risk modeling methodology used in this assessment is contained in *Attachment 1*.

City of Daly City

Daly City 2030 General Plan

The following air resources policies and implementing tasks contained in the Resource Management Element of the Daly City 2030 General Plan[10] are applicable to the proposed project:

> *Policy RME-5:* Assess projected air emissions from new development and associated construction and demolition activities in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, and relative to state and federal standards.
>
> - Task RME-5.1: Amend the Planning Division's development review procedures to include a formal step that would help identify how a development project can incorporate design or functional changes that will minimize air quality impacts.
>
> - Task RME-5.2: Incorporate air quality significance thresholds into the Local Thresholds of Significance document identified in Program RME-1.
>
> - Task RME-5.3: Consider cumulative air quality impacts consistent with the region's Clean Air Plan and State law.
>
> - Task RME-5.4: Require the preparation of a Transportation Systems Management plan for new development that has been determined to contribute to a reduction in location air quality. Daly City 2030 General Plan | Resource Management Element 193
>
> - Task RME-5.5: Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments. type, size and operations of the facility.
>
> *Policy RME-6:* Assess projected air emissions from new development and associated construction and demolition activities in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, and relative to state and federal standards.
>
> - Task RME-6.1: For new, expanded, or modified development proposals (including tenant improvements) that are potential sources of objectionable smoke and odor, require an analysis of possible smoke and odor impacts and the provision of smoke and

[10] Daly City, 2013. *Daly City 2030 General Plan.* Adopted March 25, 2013.

odor minimization and control measures as mitigation. The requirements for such shall be codified within the Daly City Municipal Code.

- Task RME-6.2: Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separate distance will be determined based upon the type, size, and operations of the facility.

SIGNIFICANCE THRESHOLDS

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 CEQA Air Quality Guidelines. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the CEQA Air Quality Guidelines in 2017 to include the latest significance thresholds, which were used in this analysis and are summarized in Table 5. Impacts above these thresholds are considered significant.

Table 5. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	None	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1000-foot zone of influence)**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental annual $PM_{2.5}$	0.3 µg/m^3	0.8 µg/m^3	

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less.

Source: Bay Area Air Quality Management District, 2017

AIR QUALITY IMPACTS AND MITIGATION MEASURES

Impact AIR-1: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Bay Area is considered a non-attainment area for ground-level ozone and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from construction and operation of the project assuming full build-out conditions. The project land use types and size were input to CalEEMod. The project applicant provided some information regarding the construction schedule but CalEEMod defaults for a project of this size and type were primarily used in this analysis. The CARB EMission FACtors 2021 model (EMFAC2021) model was used to predict emissions from construction truck traffic and trips.[11] The model output from CalEEMod is included in *Attachment 2* and EMFAC2021 emissions modeling outputs are included in *Attachment 3*.

CalEEMod Inputs

Land Use Inputs

Modeling of project construction impacts were based on three CalEEMod modeling scenarios that each represented a phase of construction. Each phase would begin construction once the prior phase's construction would be completed. Parcel A, which was previously analyzed for construction emissions, is under construction and would be mostly completed prior to construction of Phase 1/Parcel B. Therefore, emissions from that construction would not contribute to emissions occurring at the time that Parcels B through F are constructed. The proposed project land uses were entered into CalEEMod as described in Table 6.

[11] See CARB's EMFAC2021 Emissions Inventory at https://arb.ca.gov/emfac/emissions-inventory

Table 6. Project Land Uses Entered into CalEEMod[12]

Project Land Uses	Size	Units	Square Feet	Acreage
Phase 1 (Parcel B)				
Apartments Mid Rise	201	Dwellings	240,000	8
Regional Shopping Center	8.0	1,000 sf	8,000	
Enclosed Parking with Elevator	345	Spaces	115,000	
Parking Lot	21	Spaces	8,400	
City Park	0.5	Areas	22,335	
Phase 2 (Parcels C & D)				
Apartments Mid Rise	340	Dwellings	405,800	15
Regional Shopping Center	3.0	1,000 sf	3,000	
Day-Care Center	2.8	1,000 sf	2,800	
Enclosed Parking with Elevator	175	1,000 sf	175,000	
Parking Lot	46	Spaces	18,400	
Phase 3 (Parcels E & F)				
Apartments Mid Rise	572	Dwellings	675,000	8
Regional Shopping Center	3.0	1,000 sf	3,000	
Enclosed Parking with Elevator	380	1,000 sf	290,000	
Parking Lot	26	Spaces	10,400	
City Park	1.0	Areas	43,560	

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenarios per phase were based on land uses, phase construction start dates, and soil hauling information provided by the applicant to then generate CalEEMod default equipment and schedule information for a project of this type and size per phase.

The project construction equipment worksheet based on CalEEMod defaults included the schedule for each phase and subphases. Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays were based on CalEEMod defaults. The construction schedule assumed that the earliest possible start date would be July 2023 and the project would be built out over approximately 6 years and be completed in mid-2029.

Construction Truck Traffic Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the estimate of demolition material to be exported, soil material imported and/or exported to the site, and the estimate of cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips for demolition and grading were estimated from the provided demolition and grading volumes and assuming each truck could carry 10 tons per load.

[12] The land use data in Table 6 differs from data in Table 1 because Table 1 is based on the Precise Plan's max buildout scenarios, whereas Table 6 is based on provided, project specific land use information.

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2017 motor vehicle emission factor model. This model has been superseded by the EMFAC2021 model; however, CalEEMod has not been updated to include EMFAC2021. The construction traffic information was combined with EMFAC2021 motor vehicle emissions factors. EMFAC2021 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod defaults, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trucks are comprised of the largest truck category (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling (demolition material export). Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On-road emission rates for the years 2023-2029 for San Mateo County were used. Table 7 provides the traffic inputs that were combined with the EMFAC2021 emission database to compute vehicle emissions.

Table 7. Construction Traffic Data Used for EMFAC2021 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	50% LDA 25% LDT1 25% LDT2	50% MHDT 50% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0	CalEEMod default distance with 5-min truck idle time.
Phase 1 - Parcel B: 2023 - 2024				
Demolition	300	-	42	9,238-sf existing building demolition. Default worker trips.
Site Preparation	180	-	-	CalEEMod default worker trips.
Grading	300	-	3,911	31,930-cy soil export. CalEEMod default worker trips.
Trenching	100	-	-	CalEEMod default worker trips.
Building Construction	47,840	10,810	-	CalEEMod default worker and vendor trips.
Interior Construction	840	-	-	CalEEMod default worker trips.
Paving	300	-	-	CalEEMod default worker trips.
Phase 2 - Parcels C & D: 2025[3]/2026 - 2027				
Demolition	300	-	248	54,476-sf existing building demolition. Default worker trips.
Site Preparation	180	-	-	CalEEMod default worker trips.
Grading	600	-	2,168	17,340-cy soil import. CalEEMod default worker trips.
Trenching	150	-	-	CalEEMod default worker trips.
Building Construction	98,400	20,700	-	CalEEMod default worker and vendor trips.
Interior Construction	1,320	-	-	CalEEMod default worker trips.
Paving	300	-	-	CalEEMod default worker trips.
Phase 3 - Parcels E & F: 2028 - 2029				
Demolition	300	-	248	54,476-sf existing building demolition. Default worker trips.
Site Preparation	180	-	-	CalEEMod default worker trips.
Grading	300	-	1,165	9,320-cy soil export. CalEEMod default worker trips.
Trenching	100	-	-	CalEEMod default worker trips.
Building Construction	128,110	27,140	-	CalEEMod default worker and vendor trips.
Interior Construction	2,220	-	-	CalEEMod default worker trips.
Paving	300	-	-	CalEEMod default worker trips.

Notes: [1] Based on 2023-2029 EMFAC2021 light-duty vehicle fleet mix for San Mateo County.
[2] Includes grading and paving trips estimated by CalEEMod based on amount of material to be removed.
[3] There would only be two months of construction occurring in 2025 for Phase 2, therefore emissions were combined with 2026.

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 8 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project.

As indicated in Table 8, annualized project construction ROG emissions are predicted to exceed the BAAQMD significance thresholds during the year 2029. However, with implementation of *Mitigation Measures AQ-1 through AQ-3*, the ROG emissions would be reduced to levels below the thresholds of 54 pounds per day. All other construction criteria pollutants emissions are below the BAAQMD thresholds.

Table 8. Construction Period Emissions

Year	**ROG**		**NOx**		**PM_{10} Exhaust**		**$PM_{2.5}$ Exhaust**	
Construction Emissions Per Year (Tons)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2023	0.13	0.06	1.21	0.88	0.06	0.02	0.05	0.01
2024	1.95	0.98	1.67	1.46	0.08	0.03	0.07	0.02
2025-2026	0.31	0.16	2.53	2.13	0.12	0.04	0.10	0.02
2027	3.03	1.52	0.80	0.74	0.04	0.02	0.03	0.01
2028	0.24	0.14	1.80	1.53	0.09	0.04	0.07	0.02
2029	4.94	2.48	0.81	0.76	0.05	0.02	0.03	0.01
Annualized Daily Construction Emissions (pounds/day)								
Year (Number of Workdays)	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2023 (130 workdays)	2.03	0.93	18.60	13.51	0.92	0.26	0.75	0.14
2024 (209 workdays)	18.62	9.38	15.99	13.97	0.79	0.31	0.64	0.19
2025-2026 (304 workdays)	2.03	1.08	16.63	13.98	0.80	0.29	0.63	0.16
2027 (126 workdays)	48.07	24.16	12.66	11.81	0.65	0.28	0.49	0.15
2028 (219 workdays)	2.17	1.28	16.46	13.94	0.87	0.39	0.63	0.19
2029 (122 workdays)	**81.00**	40.74	13.27	12.44	0.74	0.38	0.52	0.18
BAAQMD Thresholds (pounds per day)	*54* lbs./day		*54* lbs./day		*82* lbs./day		*54* lbs./day	
Exceed Threshold?	**Yes (2029)**	No	No	No	No	No	No	No
Notes: Unmit = Unmitigated, Mit = Mitigated								

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended enhanced best management practices* needed to control construction pollutant concentrations at nearby sensitive receptors.

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Standard Measures to Control Particulate Matter Emissions during Construction. Measures to reduce DPM and PM_{10} from construction are

recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided.

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

7. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

8. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.

9. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.

10. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

11. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

12. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.

13. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent

Effectiveness of Mitigation Measure AQ-1

These measures are consistent with recommendations in the BAAMQD CEQA Guidance for providing "best management practices" and enhanced measures to control construction emissions from project with Significant emissions.

Mitigation Measure AQ-2: Use Construction equipment that has zero or low diesel particulate matter exhaust to minimize emissions. Exhaust Emission (PM) Control Measures:

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards PM (PM_{10} and $PM_{2.5}$), if feasible, otherwise,

    a. Use equipment that meets U.S. EPA emission standards for Tier 2 or 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 50-percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).

    b. Use of electrical or non-diesel fueled equipment.

2. Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 70 percent or greater. Elements of the plan could include a combination of some of the following measures:
    - Implementation of No. 1 above to use Tier 4 or alternatively fueled equipment,
    - Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors,
    - Use of electrically-powered equipment,
    - Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
    - Change in construction build-out plans to lengthen phases, and
    - Implementation of different building techniques that result in less diesel equipment usage.

    Such a construction operations plan would be subject to review by an air quality expert and approved by the City prior to construction.

Mitigation Measure AQ-3: Require use of low VOC coatings to reduce ROG emissions.

The project shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 50 percent of all residential and nonresidential interior paints and 50 percent of exterior paints.

This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 50 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of "super-compliant" coatings are contained in the South Coast Air Quality Management District's website.[13]

Effectiveness of Mitigation AQ-2 and AQ-3

The effectiveness of MM AQ-2 and AQ-3 were assessed based on additional modeling. The CalEEMod model was used to estimate the effectiveness of MM AQ-2 using Tier 4 final construction equipment. In addition, the CalEEMod model was used to estimate the effectiveness of MM AQ-3 using 50 percent interior and exterior super-compliant VOC coatings. These measures together were found to reduce on-site construction ROG emissions by 50-percent. ROG emissions would be reduced below the significant threshold.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents, employees, customers, and vendors. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

CalEEMod Land Uses

Project operational model scenarios for Parcel A and Parcels B-F for the year 2030 and an existing model for the year 2022 was developed for CalEEMod. Inputs are summarized in Table 9.

Table 9. Operational Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet	Acreage
Proposed Project Land Uses Parcel A				
Apartments Mid Rise	122	Dwellings	122,000	3.90
Unenclosed Parking Structure	72	Spaces	28,800	
Parking Lot	49	Spaces	19,600	
Proposed Project Land Uses Parcels B-F				
Apartments Mid Rise	1,113	Dwellings	1,320,800	31
Regional Shopping Center	14.0	1,000 sf	14,000	
Day-Care Center	2.8	1,000 sf	2,800	
City Park	1.5	Acre	65,340	
Standby Diesel Generator (4)	750	kW	Note: 1,005 HP	
Proposed Project Parking				
Enclosed Parking with Elevator	580.0	1,000 sf	580,000	
Parking Lot	93	Spaces	37,200	
Existing Uses				
General Office Building[1]	118.19	1,000 sf	118,190	2.71
Notes: [1] General Office Use used to represent various existing uses (school district offices and centers, gyms, churches, etc.)				

[13] SCAQMD: http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings

Operational Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. The project-specific daily trip generation rate provided by the traffic consultant was entered into the model using ITE Trip Generation Manual, 10th Edition 2017.[14] The project would produce approximately 9,486 daily trips. The daily trip generation estimates were provided for the multifamily housing and retail (Shopping Center) developments and then adjusted to account for *Internal Capture (Mixed-Use Reduction)*. When considering the reduction adjustments and the 1,053 existing use trips applied in the traffic analysis, the project would then produce 8,433 net daily trips. The Saturday and Sunday trip rates were assumed to be the weekday rate adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate. The default trip lengths and trip types specified by CalEEMod were used.

TDM Measures

The project's total home-based vehicle-miles traveled (VMT) per resident is 12.0, which is 0.4 daily VMT per resident greater than the San Mateo County threshold of 11.6. daily VMT per resident (CEQA threshold of 15 percent below the average VMT per resident in the region). Therefore, the project applicant is required as a Mitigation Measure to develop a Transportation Demand Management (TDM) Plan. The TDM Plan shall be designed to achieve the trip reduction, as required to reduce the VMT per resident from 12.0 to 11.6. The TDM Plan shall identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. These strategies may include proving secure and accessible bike parking, providing bicycle maintenance facilities, pricing and unbuilding parking, providing carpooling programs, implementing car-sharing and loaner bike programs, providing transit rider guides, providing a dedicated transportation coordinator, providing an online TDM information center, providing free trail rides on transit services, and implementing a subsidized or discounted transit program. These measures were reflected in the project trip generation estimates that were input to CalEEMod.

The project will be required to implement a TDM Plan. The TDM measures would address requirements that could include programs designed to improve circulation, minimize traffic impacts, and promote multimodal accessibility for workers and residents. This plan would reduce both local and regional travel from residential and retail travel. The TDM plan would at a minimum need to reduce vehicle travel by 3 percent in order to meet the project's VMT threshold. Mobile emissions were reduced by 3 percent to reflect the effectiveness of these measures.

EMFAC2021 Adjustment

The vehicle emission factors and fleet mix used in CalEEMod are based on EMFAC2017, which is an older CARB emission inventory for on road and off road mobile sources. Since the release of CalEEMod Version 2020.4.0, new emission factors have been produced by CARB. EMFAC2021 became available for use in January 2021. It includes the latest data on California's car and truck fleets and travel activity. The CalEEMod vehicle emission factors were updated with

[14] Email correspondence with Tyler Rogers, Project Manager, David J. Powers & Associates, Inc., May 23, 2022. Attachment: *TIA_Updated Project Trip Generation (Buildout) Table.cam.png.*

the emission rates from EMFAC2021. On road emission rates from the year 2022 and 2030 for San Mateo County were used (See *Attachment 3*). More details about the updates in emissions calculation methodologies and data are available in the EMFAC2021 Technical Support Document.[15]

Energy

CalEEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 0 pounds of CO_2 per megawatt of electricity produced, which is based on Peninsula Clean Energy's 2019 emissions rate.

Daly City passed a reach code banning natural gas hook ups in new residential buildings.[16] Therefore, all Title 24 and Non-Title 24 natural gas intensity was added into the Title 24 and Non-Title 24 electricity intensity. The natural gas usage for the retail portion of the proposed building has been left at the CalEEMod default values.

Wood-Burning Devices

CalEEMod default inputs assume new residential construction would include woodburning fireplaces and stoves. The project would not include wood-burning devices, as these devices are prohibited by BAAQMD Regulation 6, Rule 3.[17] Therefore, the number of woodstoves and fireplaces in CalEEMod were set to zero.

Project Generators

The project proposes to include four stand-by emergency generators powered by diesel engines. The project would include one generator in Parcels B, D, E, and F. The generator sizes identified are 750 kW and the engine size estimated to power these generators would be 1,005 HP. Specific generator locations have not been identified at this time, but the generators were assumed to be located in the center of the ground floor of each identified parcel. These generators would be tested periodically and power the buildings in the event of a power failure. For modeling purposes, it was assumed that the generators would be operated primarily for testing and maintenance purposes. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year of non-emergency operation. The modeling assumed that total operation of the generators would be 50 hours per year. The engines would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. Additionally, the generators would have to meet BAAQMD BACT requirements for IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump sources. The generator

[15] See CARB 2021: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

[16] Daly City Municipal Code Ordinance No. 1448, April 27, 2021. Web: https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/loma-prieta-chapter/ActivistResources/Daly%20City%20Energy%20Reach%20Code.PDF

[17] Bay Area Air Quality Management District, https://www.baaqmd.gov/~/media/dotgov/files/rules/regulation-6-rule-3/documents/20191120_r0603_final-pdf.pdf?la=en

emissions were modeled using CalEEMod. Table 9, above, describes the generators modeled for each phase.

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project. Water/wastewater use was changed to 100 percent aerobic conditions to represent wastewater treatment plant conditions. The project site would not send wastewater to septic tanks or facultative lagoons.

Existing Uses

The project site is currently occupied by a multitude of existing uses and associated parking, including school district offices and centers, gyms, churches and offices, preschools, etc. Approximately 118,190 sf of existing buildings that generate 1,053 trips per day would be removed. Since traffic data only had trip information under one use, emissions associated with these existing buildings were modeled using CalEEMod by categorizing all the different uses as "General Office Building".

Summary of Computed Operational Emissions

Annual emissions were calculated using CalEEMod and daily emissions were calculated assuming 365 days of operation. Table 10 shows unmitigated net average daily operational emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. The unmitigated operational period emissions would not exceed the BAAQMD significance thresholds.

Note that operational ROG emissions would be further reduced by Mitigation Measure AQ-3 that requires the use of low VOC coatings to reduce ROG emissions. This measure is expected to reduce operational ROG emissions by about 0.5 tons per year of 2.6 pounds per day.

Table 10. Unmitigated Annual and Daily Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Operational Emissions Per Year (Tons)				
2022 Existing Emissions	1.02	0.49	0.65	0.17
2030 Annual Operational Emissions (*tons/year*)				
Area	7.06	0.11	0.05	0.05
Energy	0.00	0.00	0.00	0.00
Mobile	3.72	2.15	6.95	1.76
Stationary	0.16	0.74	0.02	0.02
Waste	--	--	--	--
Water	--	--	--	--
Mobile TDM Reduction	-0.11	-0.06	-0.21	-0.05
Unmitigated Project Total	10.83	2.94	6.81	1.78
Mitigated Project Total	10.36	--	--	--
Unmitigated Net Increase	9.81	2.44	6.16	1.60
Mitigated Net Increase	9.34	--	--	--
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold Unmitigated	*No*	*No*	*No*	*No*
Annualized Daily Operational Emissions (pounds/day)[1]				
Unmitigated Daily Net Emissions – (*lbs/day*)	53.77	13.38	33.76	8.79
Mitigated Daily Net Emissions – (*lbs/day*)	51.19	--	--	--
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold? Unmitigated	*No*	*No*	*No*	*No*
Notes: [1] Assumes 365-day operation.				

Impact AIR-2: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased community risk can occur by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity or by significantly exacerbating existing cumulative TAC impacts. This project would introduce new sources of TACs during construction (i.e., on-site construction activity and truck hauling emissions) and operation (i.e., mobile sources and stationary sources).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. This project operation would increase traffic in the area that would increase the air pollutant and TAC emissions in the area. In addition, the project would include the installation of an emergency generator powered by diesel engines that would also have TACs and air pollutants emissions.

Project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. There are also several sources of existing TACs and localized air pollutants in the vicinity of the project. The impacts of the existing sources of TACs were also assessed in terms of the cumulative risk which includes the project contribution, as well as the risk on the new sensitive receptors introduced by the project.

Community Risk Methodology for Construction and Operation

Community risk impacts were addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations and computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operation sources. These sources include on-site construction activity, construction truck hauling, stand-by emergency generator operation, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period is typically used, per BAAQMD guidance,[18] with the residential sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

The project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI values are not additive but based on the annual maximum values for the entirety of the project. The project's maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.

The methodology for computing community risks impacts is contained in *Attachment 1*. This involved the calculation of TAC and $PM_{2.5}$ emissions, dispersion modeling of these emissions, and computations of cancer risk and non-cancer health effects.

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures). This includes existing residential sensitive receptors to the north, west, and south and student sensitive receptors at the adjacent high school to the south (see Figure 3). A separate analysis of on-site sensitive receptors was also conducted at locations of the project buildings (i.e., Parcels A - F). Cancer risk computations assumed third-trimester fetus, infant, child, and adult exposure periods over 30 years at residential receptors. Community risks were also computed for child exposure at the nearby high school.

Health Risks from Project Construction – On-Site Construction and Hauling Activities

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. A community risk assessment of the project's construction activities, which includes on-site construction and hauling activity, was conducted. The assessment evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[19] This assessment included dispersion modeling to predict the off-site concentrations resulting from

[18] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines.* December 2016.

[19] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

project construction, so that increased cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod and EMFAC2021 models provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road construction worker, vendor, and hauling vehicles. Total DPM emissions from all construction phases are reported in Table 11 and are on an annual basis.[20] The annual on-road emissions result from haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used for vehicle travel while at or near the construction site to represent localized vehicle emissions from construction. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were computed by CalEEMod for the overall construction period and are included as part of the total $PM_{2.5}$ emissions reported in Table 11.

Table 11. Annual Unmitigated Construction Emissions of DPM and Fugitive $PM_{2.5}$ (tons)

Contaminant	2023	2024	2025-2026[1]	2027	2028	2029
PM_{10} Exhaust (DPM)	0.048	0.064	0.093	0.029	0.064	0.028
$PM_{2.5}$ Fugitive	0.087	0.002	0.119	0.002	0.094	0.003
Note: [1] There would only be two months of construction occurring in 2025 for Phase 2, therefore emissions were combined with 2026.						

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[21] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

Construction Sources

The AERMOD modeling utilized 12 area sources to represent the on-site construction emissions from the different construction phases (see Figure 5), six areas for exhaust emissions of DPM and $PM_{2.5}$ and six areas for fugitive $PM_{2.5}$ dust emissions. To represent the construction equipment exhaust emissions, an area source emission release height of 20 feet (6 meters) was used for the area sources.[22] The release height incorporates both the physical release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise after it leaves the exhaust pipe. Plume rise is due to both the high temperature of the exhaust and the high velocity

[20] Note that the District Utilities construction scenario had the highest emissions.
[21] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.
[22] California Air Resource Board, 2007. *Proposed Regulation for In-Use Off-Road Diesel Vehicles, Appendix D: Health Risk Methodology*. April. Web: https://ww3.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm

of the exhaust gas. It should be noted that when modeling an area source, plume rise is not calculated by the AERMOD dispersion model as it would do for a point source (exhaust stack). Therefore, the release height from an area source used to represent emissions from sources with plume rise, such as construction equipment, should be based on the height the exhaust plume is expected to achieve, not just the height of the top of the exhaust pipe. Emissions from vehicle travel on- and off-site were distributed among the exhaust emission area sources throughout the site. The locations of the area sources used for the modeling are identified in Figure 5.

For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 7 feet (2 meters) was used for the area source. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and unloading (rear or bottom dumping), loaders and excavators moving and transferring soil and other materials, etc. All of these activities result in fugitive dust emissions at various heights at the point(s) of generation. Once generated, the dust plume will tend to rise as it moves downwind across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources.

AERMOD Inputs and Meteorological Data

The modeling used a three-year meteorological data set (2010, 2012, 2013) from Fort Funston prepared for use with the AERMOD model by the BAAQMD. Construction emissions were modeled as occurring between 8:00 a.m. to 5:00 p.m. Monday through Friday for the entire construction period. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2023-2029 period were calculated using AERMOD. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptor locations. The modeling accounted for the complex terrain. Construction source and receptor elevations were based on USGS National Elevation Data (NED) with a 30-meter resolution. For off-site residential receptors, receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing heights of residents on the first and second floors in nearby single-family homes and multi-story residential developments.[23] A receptor height of 5 feet (1.5 meters) was used to represent the breathing height of older child students at the high school.

Summary of Construction Community Risk Impacts

The increased cancer risk calculations were based on applying the BAAQMD recommended methods as described in *Attachment 1*. These methods include application of age sensitivity factors to the TAC concentrations. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Third trimester, infant, child, and adult exposures were assumed to occur at all residences during the entire construction period, while child exposures were assumed to occur at the high school.

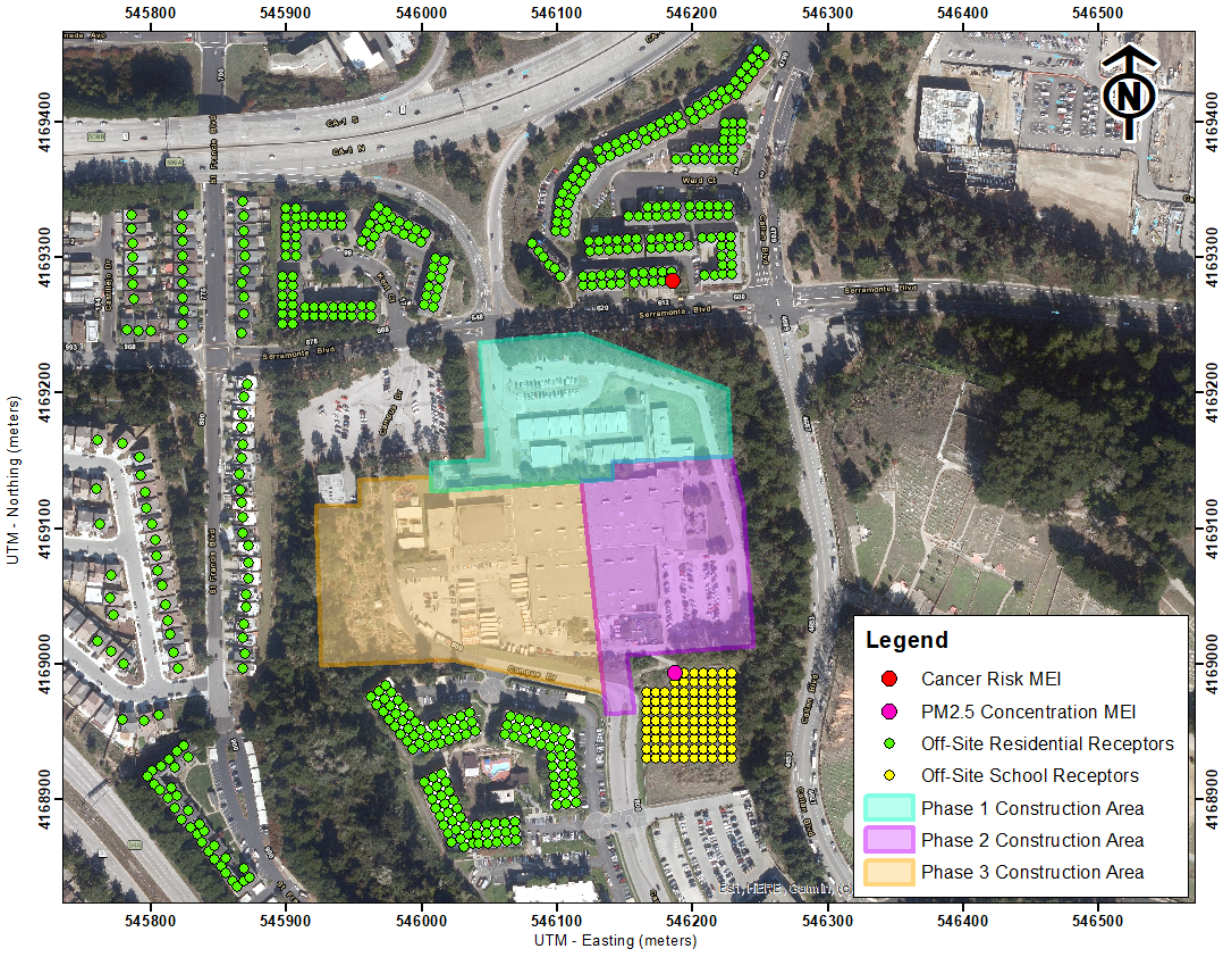
[23] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0. May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

The maximum modeled annual $PM_{2.5}$ concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI values was based on the ratio of the maximum modeled DPM concentration and the chronic inhalation reference exposure level of 5 $\mu g/m^3$.

The maximum modeled annual DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that the construction MEIs were located at two different receptor locations. The cancer risk MEI was located at a residential receptor on the first-floor level to the north of the site opposite Serramonte Boulevard. The $PM_{2.5}$ concentration MEI was located at a high school receptor on the first-floor level to the south of the site. The locations of the construction MEIs and nearby sensitive receptors are shown in Figure 5. Table 12 includes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities. *Attachment 4* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Additionally, modeling was conducted to predict the cancer risks, non-cancer health hazards, and maximum $PM_{2.5}$ concentrations associated with construction activities at the nearby high school. The maximum increased cancer risks were adjusted using child exposure parameters at the high school. Project construction health risks at the high school receptor are shown in Table 12.

Figure 5. Locations of Project Construction Sites, Off-Site Sensitive Receptors, and Maximum Construction TAC Impacts



Health Risks from Project Operation – Traffic and Generators

Operation of the project would have long-term emissions from mobile sources (e.g., traffic) and stationary sources (e.g., generators). While these emissions would not be as intensive at or near the site as construction activity, they would contribute to long-term effects to sensitive receptors.

Project Operational Traffic

An analysis was conducted of the local impacts of TACs and $PM_{2.5}$ from increase in traffic on the project site due to the project. The project would generate 8,433 net daily trips.[24] A majority of these trips would be from light-duty, gasoline vehicles (i.e., passenger cars). To address the added community risks, the impact from this traffic was assessed using emission factors from the Caltrans CT-EMFAC2017 emissions model, the AERMOD dispersion model, and cancer risk calculations following BAAQMD methodology described in *Attachment 1*. Figure 6 shows the modeled roadway area Project traffic was modeled on the project site.

Traffic Emissions

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on the project site using the Caltrans version of the EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (e.g., TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (i.e., San Mateo County), type of road (major/collector), truck percentage for non-state highways in San Mateo County (3.13 percent),[25] truck mix assigned by CT-EMFAC2017 for the county, year of analysis (2025 – project Phase 1 operational year), and season (annual). For on-site emissions, a one-mile segment length was included in the CT-EMFAC2017. These emissions were applied to an area source, representing travel throughout the entire project site. The modeled net new traffic volumes for the project was 8,433 vehicles.

A portion of project operation was assumed to begin in 2025 once Phase 1 construction was complete, with the project fully operational in 2030. To calculate the increased cancer risk from increased traffic volumes due to the project traffic, the community risks were adjusted for exposure duration to account for the MEIs being exposed to construction for the first 2 years (2023-2024) of the 30-year period, followed by exposure to roadway traffic (as well as the remaining 4 years of construction) for the following 28 years (2025-2052). In order to estimate TAC and $PM_{2.5}$ emissions over the exposure period for calculating increased cancer risks to exiting residents from project traffic, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2025. Year 2025 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated (28 years) from the project site

[24] Email correspondence with Tyler Rogers, Project Manager, David J. Powers & Associates, Inc., May 23, 2022. Attachment: *TIA_Updated Project Trip Generation (Buildout) Table.cam.png.*

[25] Bay Area Air Quality Management District, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

traffic, since overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

Dispersion Modeling

Dispersion modeling of operational TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD dispersion model (refer to Figure 6 for project traffic area modeled). On- and near-site project traffic vehicle emissions were evaluated as an area source within the project site to capture on-site project traffic. This is the same techniques used to model construction traffic emissions. Other inputs to the model to represent these sources included project site geometries and elevation, hourly traffic emissions, and receptor locations, elevations, and heights. Project traffic area sources and receptor elevations were based on USGS NED with a 30-meter resolution. The same BAAQMD Fort Funston meteorological data used in the construction dispersion modeling were used for the project traffic modeling.

Computed Risks and Hazards from Project Traffic

To calculate the increased cancer risk from the project traffic, the exposure duration was adjusted to account for the MEIs being exposed to construction for 2 years of construction over the 30-year exposure period at residential receptors. Traffic exposure at residences would begin at year 3 for 28 years of exposure, while construction exposure continues to occur during years 3 through 6. Even though a typical student at a high school would only be at school for 4 years, a conservative 9 years (typical child exposure years in school) was used. Traffic exposure at the school would begin at year 3 for 9 years of exposure, while construction exposure continues to occur during years 3 through 6. The risks and hazards from the project traffic upon the MEIs were calculated using BAAQMD recommended methods. Table 12 includes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related traffic activities. The emission rates and project traffic calculations used in the project impact analysis are shown in *Attachment 4*.

Operational Emergency Generator Modeling

As previously described, the project would include four stand-by emergency generators powered by diesel engines. The project would include one generator in Parcels B, D, E, and F. The generators size would be 750 kW and the engine size estimated to power these generators would be 1,005 HP. Specific generator locations have not been identified at this time, but the generators were assumed to be located in the center of the ground floor of each identified parcel with the exhaust stacks at 12 feet above grade with horizontal discharge. The locations of the modeled generators are shown in Figure 6.

Operation of a diesel generator would be a source of TAC emissions in the form of DPM. The emissions from the operation of the generator were calculated using information from the CalEEMod model, as previously described. The generators were assumed to operate 50 hours per year. During testing periods, the engine would typically be run for less than one hour under light engine loads. The generator engines would be required to meet EPA emission standards and consume commercially available low sulfur diesel fuel.

These diesel engines would be subject to CARB's Stationary Diesel Airborne Toxics Control Measure (ATCM) and require permits from the BAAQMD, since they will be equipped with engines larger than 50-HP. BACT requirements would apply to these generators that would limit DPM emissions. As part of the BAAQMD permit requirements for toxics screening analysis, the engine emissions will have to meet BACT and pass the toxic risk screening level of less than ten in a million. The risk assessment would be prepared by BAAQMD. Depending on results, BAAQMD would set limits for DPM emissions (e.g., more restricted engine operation periods). Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality community risk impact.

Dispersion Modeling

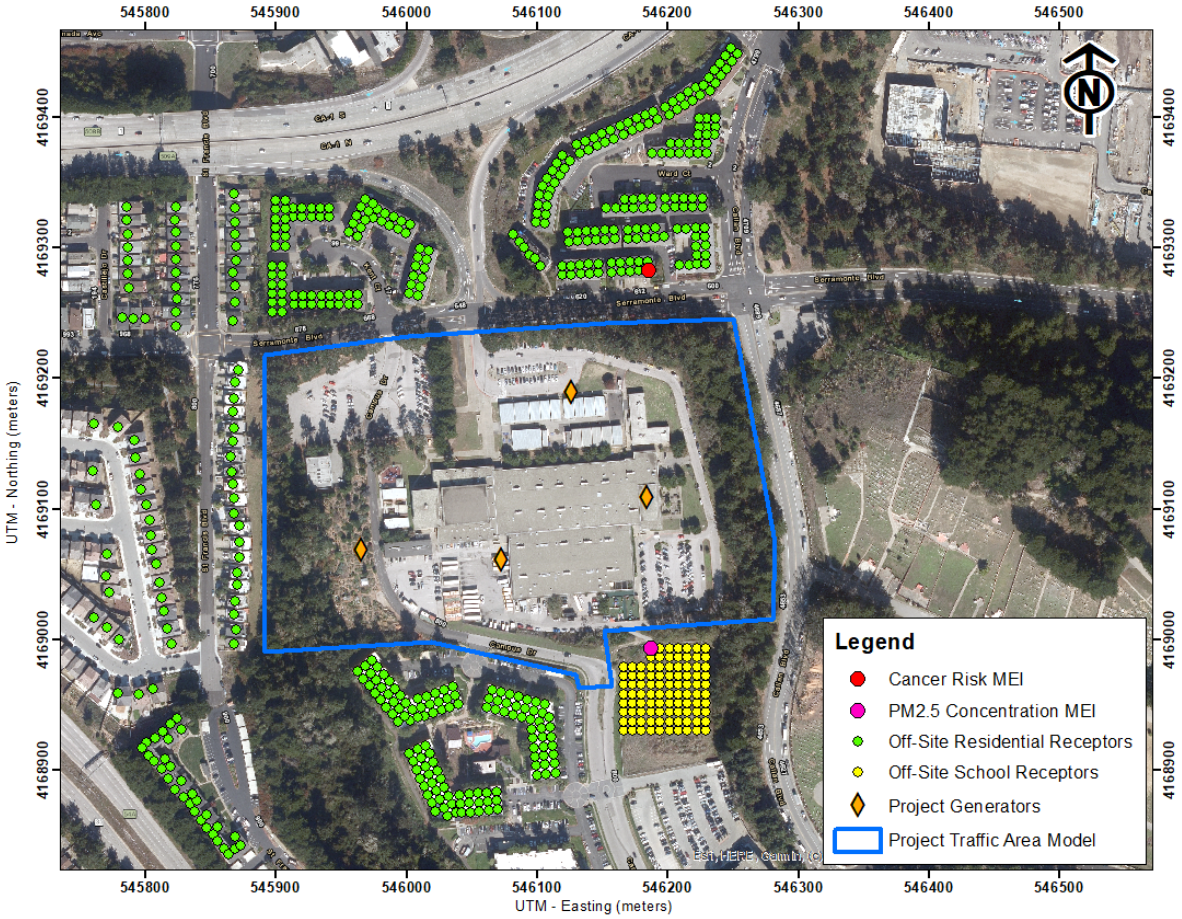
To obtain an estimate of potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generators the U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at off-site sensitive receptor locations (nearby residences and high school). The same receptors, breathing heights, and BAAQMD Fort Funston meteorological data used in the construction dispersion modeling were used for the generator model. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the generators was based on BAAQMD default parameters for emergency generators.[26] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day (24 hours per day, 365 days per year).

Computed Risks and Hazards from Project Generators

Increased cancer risks from use of the generators were calculated using the modeled maximum annual DPM concentrations and BAAQMD recommended risk assessment methods and parameters (*Attachment 1)*. The $PM_{2.5}$ concentration and non-cancerous (i.e. Hazard Index) health risk impacts were also calculated. An exposure duration of 28 years at residences and 7 years at the high school for the generators (2025-2052 or 2025-2031) was used to calculate the increased cancer risk from the generator at the residential and school MEIs. Table 12 includes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes from the project generators. The emissions and health risk calculations for the proposed generators are included in *Attachment 4*.

[26] The San Francisco Community Risk Reduction Plan: Technical Support Document, BAAQMD, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

Figure 6. Locations of Modeled Project Stationary and Traffic Sources, Off-Site Sensitive Receptors, and Construction and Project Maximum TAC Impacts



Summary of Project-Related Community Risks at Off-Site Project MEIs

The sensitive receptor identified in Figures 5 and 6 as the MEIs for increased cancer risk and $PM_{2.5}$ construction are also the MEIs for both construction and operation. The unmitigated cancer risk MEI would be exposed to 2 year of construction cancer risks, 4 years of construction and operation, and 24 years of operation emissions. Operation includes project traffic and standby backup generators operation. The cancer risks from construction and operation of the project were summed together. The annual $PM_{2.5}$ concentration and HI values are based on annual maximum levels for the entirety of the project, with the maximum values occurring during construction at a high school sensitive receptor. Therefore, the construction and operational period $PM_{2.5}$ MEI are the same.

As shown in Table 12, the unmitigated maximum cancer risks from construction and operation activities would exceed the single-source significance threshold at both the residential and student MEI receptors. As shown in Table 13, with the implementation of *Mitigation Measures AQ-1 and AQ-2* the project's cancer risk would be reduced to below the single-source threshold. The annual $PM_{2.5}$ concentration and HI from unmitigated construction and operation activities at both the residential and student MEI receptors would not exceed the single-source significance thresholds.

Table 12. Unmitigated Maximum Project Health Risk Impacts at the Off-Site MEIs

Source	Cancer Risk (per million)[1]	$PM_{2.5}$ Concentration ($\mu g/m^3$)[2]	Hazard Index [2]
Most Affected Residential Receptor			
Construction (Years 0 – 6)	**19.28 (infant)**	0.15	0.01
Traffic (Years 3 – 30)	0.48 (child)	0.10	<0.01
Emergency Generators (years 3 – 30)	1.37 (child)	<0.01	<0.01
Unmitigated Project Total	**21.13 (infant)**	0.15	0.01
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold? Unmitigated	***Yes***	*No*	*No*
Most Affected Student Receptor – Summit Shasta High School			
Construction (Years 0 – 6)	**11.96 (child)**	0.29	0.02
Traffic (Years 3 – 9)	0.26 (child)	0.11	<0.01
Emergency Generators (years 3 – 9)	0.09 (child)	<0.01	<0.01
Unmitigated Project Total	**12.31 (child)**	0.29	0.02
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold? Unmitigated	***Yes***	*No*	*No*

[1] Maximum assuming third-trimester fetus, infant, child exposure for construction and child/adult exposure during operation for 30-year exposure for residential receptors and 9-year exposure for student receptors.
[2] Maximum annual concentration for any year.

Table 13. Mitigated Maximum Project Health Risk Impacts at the Off-Site MEIs

Source	Cancer Risk (per million)[1]	$PM_{2.5}$ Concentration ($\mu g/m^3$)[2]	Hazard Index [2]
Most Affected Residential Receptor – Summit Shasta High School			
Construction (Years 0 – 6)[3]	3.33 (infant)	0.05	<0.01
Traffic (Years 3 – 30)	0.48 (child)	0.10	<0.01
Emergency Generators (years 3 – 30)	1.37 (child)	<0.01	<0.01
Mitigated Project Total	5.18 (infant)	0.10	0.01
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold? Mitigated	*No*	*No*	*No*
Most Affected Student Receptor – Summit Shasta High School			
Construction (Years 0 – 6)[3]	2.13 (child)	0.11	<0.01
Traffic (Years 3 – 9)	0.26 (child)	0.11	<0.01
Emergency Generators (years 3 – 9)	0.09 (child)	<0.01	<0.01
Mitigated Project Total	2.48 (child)	0.11	<0.01
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold? Mitigated	*No*	*No*	*No*

[1] Maximum assuming third-trimester fetus, infant, child exposure for construction and child/adult exposure during operation for 30-year exposure.
[2] Maximum annual concentration for any year.
[3] Assumes use of Tier 4 equipment and BMPs and mitigation.

Mitigation: Implement Mitigation Measures AQ-1 and AQ-2

Effectiveness of Mitigation Measures AQ-1 and AQ-2

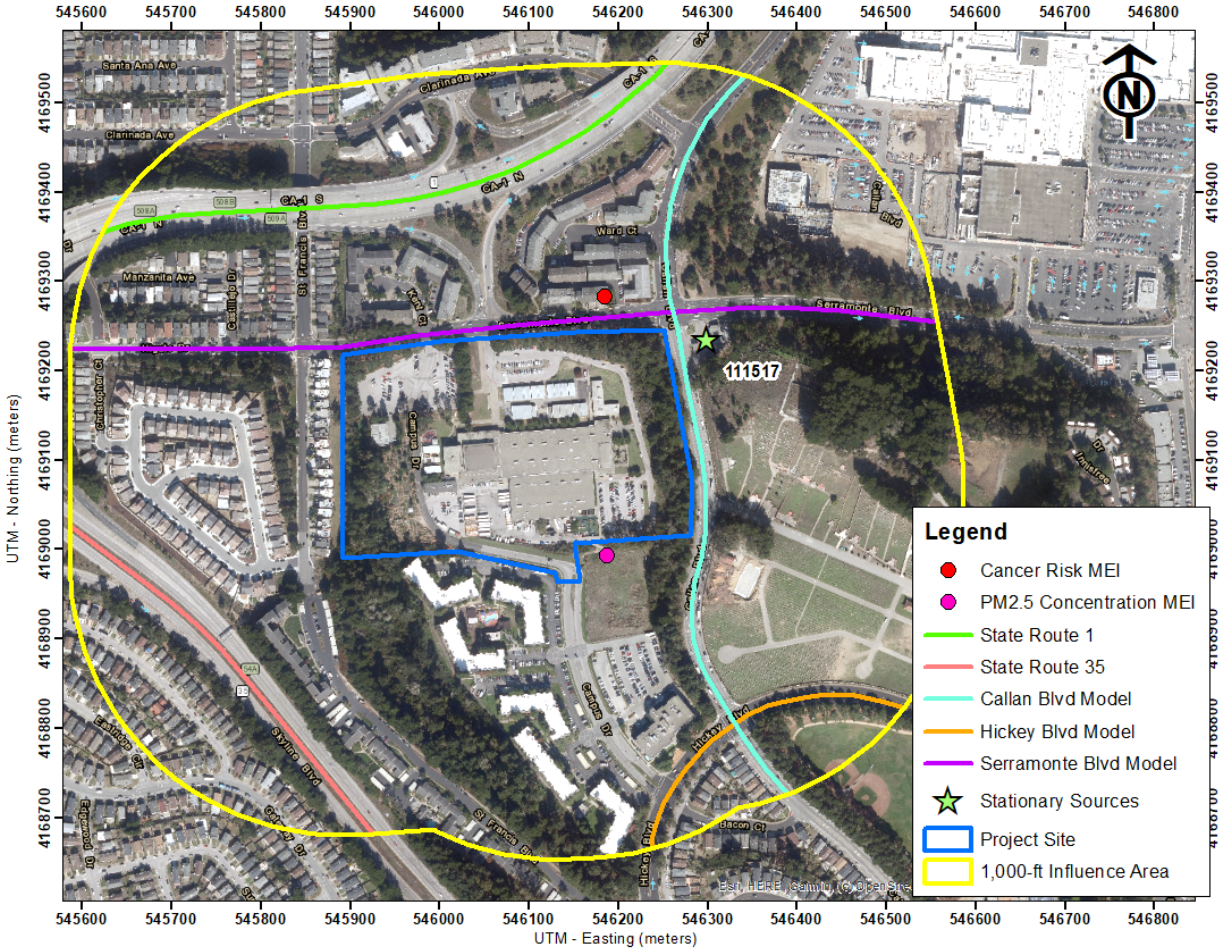
CalEEMod was used to compute the mitigated emissions assuming that all equipment larger than 25 horsepower met U.S. EPA Tier 4 standards along with enhanced BAAQMD best management practices for construction were included. With these measures implemented, the project's construction off-site cancer risk levels would be reduced by 83 percent to 3.33 chances per million, and the total caner risk from project impacts would be reduced to 5.18 chances per million for the residential MEI. The project's annual $PM_{2.5}$ concentrations from construction would be reduced by 62 percent to 0.11 $\mu g/m^3$ at the maximum affected high school MEI. Table 13 shows the mitigated health risk assessment results. The mitigated project's risk impacts from construction would be reduced to levels below the BAAQMD single-source significance thresholds.

Cumulative Impact of All TAC Sources on the Off-Site Project MEI

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site (i.e. influence area). These sources include rail lines, freeways or highways, busy surface streets, and stationary sources identified by BAAQMD.

Based on a review of the project area and traffic information provided by the traffic consultant, traffic on State Route 1, State Route 35 (Skyline Boulevard), Callan Boulevard, Hickey Boulevard, and Serramonte Bouvard would exceed 10,000 vehicles per day. Other nearby streets have traffic volumes less than 10,000 vehicles per day. A review of BAAQMD's stationary source map website identified one stationary source within 1,000 feet with the potential to affect the project MEIs. Figure 7 shows the location of the sources affecting the MEIs. Community risk impacts from these sources upon the MEIs reported in Table 14. Details of the modeling and community risk calculations are included in *Attachment 5.*

Figure 7. Project Site and Nearby TAC and $PM_{2.5}$ Sources within 1,000 feet



State Route 1 and State Route 35 (Skyline Boulevard)

The project MEIs are approximately 500 to 1,400 feet south of State Route 1 and approximately 1,400 to 1,800 feet east of State Route 35 (Skyline Boulevard). Screening data reported by BAAQMD for highways were incorporated into this analysis. BAAQMD provided raster files with cancer risk and $PM_{2.5}$ values for all highways, roadways (average daily traffic (ADT) > 30,000), and rail lines within the Bay Area. The risk values shown in the raster files were modeled in AERMOD in 20x20-meter grid cells. The files incorporate AADT for the highway using EMFAC2014 data for fleet mix and include the 2015 OEHHA cancer risk modeling parameters for residents (i.e., 3rd-trimester fetus, infant, child, and adult) and students (i.e., child). These raster files were used to screen State Route 1 and State Route 35 (Skyline Boulevard) risks and hazards upon the MEIs. The highway screening level impacts are listed in Table 14 and included in *Attachment 5*. If conducted instead, refined modeling of the highways would have resulted in lower risk values since future traffic emission rates are much lower in now than 2014. Note that BAAQMD has found that non-cancer hazards were found to be minimal, so an HI value is not included.

Local Roadways – Callan Boulevard, Hickey Boulevard, and Serramonte Boulevard

BAAQMD does not provide any screening modeling of local roadways (i.e., non-highways with traffic volumes less than 30,000 ADT). A refined analysis of potential health risks from vehicle traffic on Callan Boulevard, Hickey Boulevard, and Serramonte Boulevard was conducted. The refined analysis involved predicting emissions for the traffic volume and mix of vehicle types on the roadway near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks were then computed based on the modeled exposures. *Attachment 1* includes a description of how community risk impacts, including cancer risk are computed.

Emission Rates

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on the identified roadways using the Caltrans version of the CARB EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in the emissions estimate. DPM emissions are projected to decrease in the future as reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (San Mateo County), type of road (major/collector), truck percentage for non-state highways in San Mateo County (3.13 percent),[27] traffic mix assigned by CT-EMFAC2017 for the county, year of analysis (2023 – construction start year), and season (annual).

To estimate TAC and $PM_{2.5}$ emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the MEIs, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2023 (project construction year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2017. Year 2023 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

The ADT for the roadways was calculated based on AM and PM peak-hour cumulative traffic volumes for the nearby roadway provided by the project's traffic consultant.[28] The estimated ADT on Callan Boulevard was 13,950 vehicles, on Hickey Boulevard was 17,950 vehicles, and on Serramonte Boulevard was 11,565 vehicles. Average hourly traffic distributions for San Mateo

[27] Bay Area Air Quality Management District, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

[28] Email correspondence with Tyler Rogers, Project Manager, David J. Powers & Associates, Inc., May 17, 2022. Attachment: *Master Volumes for Air+Noise_May2022.xlsx.*

County roadways were developed using the EMFAC model,[29] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for the roadway. An average travel speed of 35 miles per hour (mph) on Callan Boulevard and Hickey Boulevard and 25 mph on Serramonte Boulevard was used for all hours of the day based on posted speed limit signs on the roadway.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the AERMOD dispersion model, which is recommended by the BAAQMD for this type of analysis.[30] TAC and $PM_{2.5}$ emissions from traffic on the roadways within 1,000 feet of the project site were evaluated. Emissions from vehicle traffic were modeled in AERMOD using a series of area sources along a line (line area sources), with line segments used for each roadway. The same meteorological data and off-site sensitive receptors used in the previous dispersion modeling were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations. Roadway sources and receptor elevations were based on USGS NED with a 30-meter resolution. Annual TAC and $PM_{2.5}$ concentrations for 2023 from traffic on the roadways were calculated using the model. Concentrations were calculated at the project MEIs with receptor heights of 5 feet (1.5 meters) to represent the breathing heights on the first floors of residents in the multi-family units and students at the high school.

Figure 2 shows the roadway segments modeled and residential receptor locations used in the modeling. Table 7 lists the risks and hazards from the roadway. The emission rates and roadway calculations used in the analysis are shown in *Attachment 5*.

BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018* GIS website, which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for new OEHHA guidance.[31] One source was identified using this tool, a gas dispensing facility. A stationary source information request was not required as the BAAQMD GIS website provided screening risks and hazards for this source.

The screening level risks and hazards provided by BAAQMD for the stationary source was adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Gas Dispensing Facilities*. Community risk impacts from the stationary source upon the MEIs are reported in Table 14. The stationary source information containing the list of sources and their screening levels is contained in *Attachment 5*.

[29] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2014 does not include Burden type output with hour by hour traffic volume information.
[30] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012
[31] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

Summary of Cumulative TAC Risks at the Off-Site Project MEIs

Table 14 reports both the project and cumulative community risk impacts at the unmitigated and mitigated project MEIs. The project would have an exceedance with respect to community risk caused by project construction and operation activities, since the maximum unmitigated cancer risk exceeds the BAAQMD single-source threshold. The annual $PM_{2.5}$ concentration and hazard risk values, which include both the unmitigated and mitigated conditions, would not exceed their single-source thresholds. With the incorporation of *Mitigation Measure AQ-1 and AQ-2*, the mitigated cancer risk would no longer exceed its BAAQMD single-source significance threshold. In addition, the combined unmitigated cancer risk, $PM_{2.5}$ concentration, and HI values would not exceed their respective cumulative thresholds. The project would not contribute to a cumulative increase in TAC emissions within the local area.

Table 14. Project and Cumulative Risk Impacts at the Off-Site MEIs

Source		Cancer Risk (per million)[1]	$PM_{2.5}$ Concentration ($\mu g/m^3$)[2]	Hazard Index [2]
Project[3]	Unmitigated	**21.13**	0.29	0.02
	Mitigated	5.18	0.11	<0.01
State Route 1 & 35 RASTER Data		5.71	0.09	--
Callan Boulevard, ADT 13,950		0.29	0.02	<0.01
Hickey Boulevard, ADT 17,950		0.02	0.01	<0.01
Serramonte Boulevard, ADT 11,565		2.01	0.01	<0.01
KNK Petroleum Inc dba Triton Gas (Facility ID #111517, Gas Station), MEI at 325 feet		2.61	--	0.01
Cumulative Total	Unmitigated	31.77	0.42	<0.06
	Mitigated	15.82	0.24	<0.05
BAAQMD Cumulative-Source Threshold		***100***	***0.8***	***10.0***
Exceed Threshold?	*Unmitigated*	*No*	*No*	*No*
	Mitigated	*No*	*No*	*No*

[1] Maximum assuming third-trimester fetus, infant, child exposure for construction and child/adult exposure during operation for 30-year exposure for residential receptors and 9-year exposure for student receptors.
[2] Maximum annual concentration for any year.
[3] Cancer risk MEI occurred at residential receptor to the north and $PM_{2.5}$ Concentration MEI occurred at high school receptor to the south.

Non-CEQA Health Risk Impacts

A health risk assessment was completed to analyze the impact existing and proposed project construction sources would have on the new proposed sensitive receptors (i.e., residents and daycare) that that project would introduce. Per *CBIA v. BAAQMD*, lead agencies are not typically required to analyze the impacts of existing conditions on a project's future residents.

The same TAC sources identified to describe project impacts were used in this on-site health risk assessment. This included emissions from the proposed project that include phased construction. In addition, the same existing nearby TAC sources identified above were used in this on-site health risk assessment. Figure 8 shows the on-site residential and daycare sensitive receptors that would be introduced by the project, the project construction sources, and nearby existing TAC sources. All results are listed in Table 15. *Attachment 5* includes the dispersion modeling and risk calculations for TAC source impacts upon the proposed on-site sensitive receptors.

Cumulative Community Health Risk at Project Site

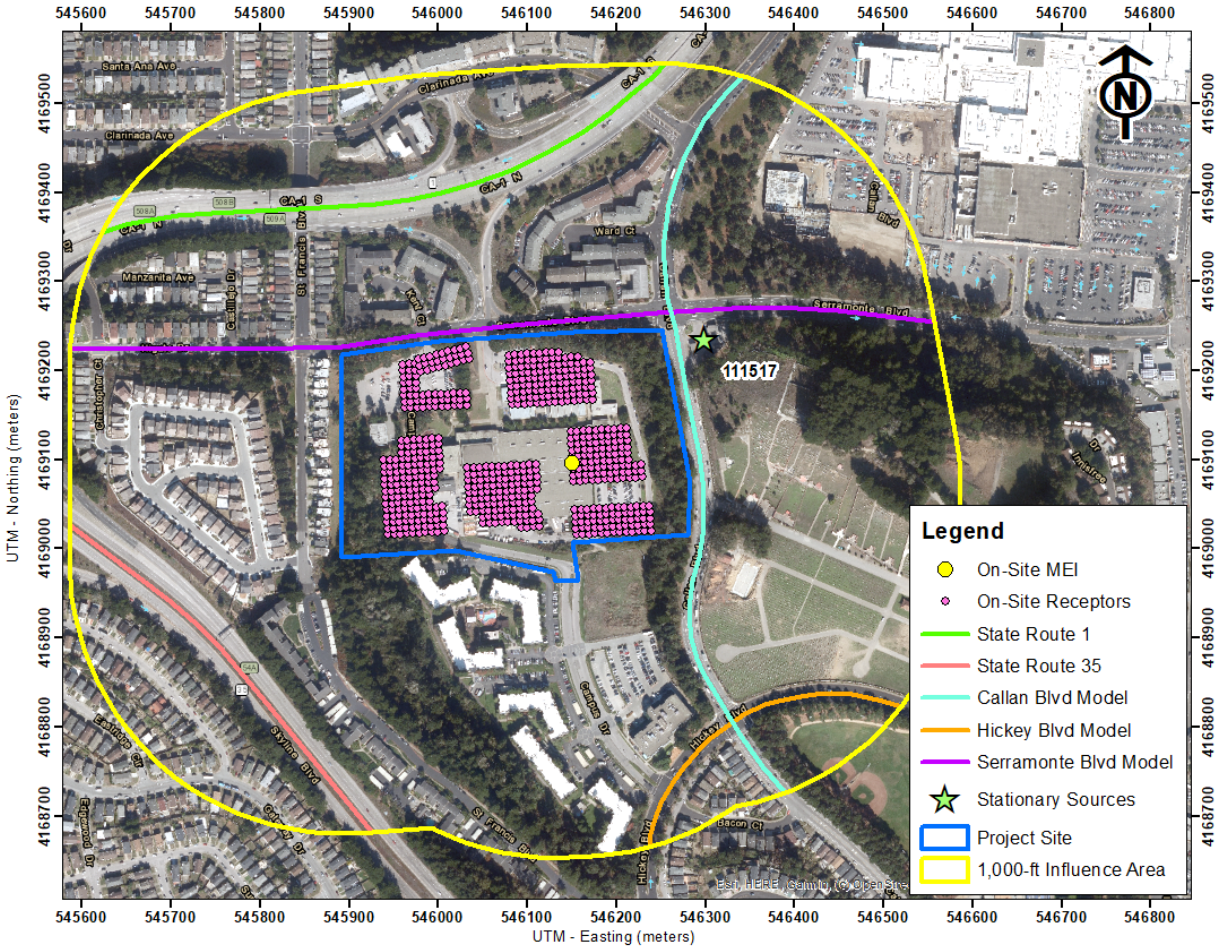
Community risk impacts from the existing and project TAC sources upon the project site are reported in Table 15. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, the project construction sources' unmitigated cancer risk and $PM_{2.5}$ concentration impacts exceed the single-source thresholds, but not the cumulative-source thresholds. Implementation of *Mitigation Measures AQ-1 and AQ-2* would reduce cancer risks and annual $PM_{2.5}$ concentrations below the single-source thresholds.

Table 15. Impacts from Cumulative TAC Sources at the Project Site

Source		Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Project	Unmitigated	**27.31**	**0.35**	0.02
	Mitigated	5.21	0.14	0.01
State Route 1 & 35 RASTER Data		5.79	0.20	--
Callan Boulevard, ADT 13,950		0.23	0.03	<0.01
Hickey Boulevard, ADT 17,950		0.07	0.01	<0.01
Serramonte Boulevard, ADT 11,565		1.08	0.10	<0.01
KNK Petroleum Inc dba Triton Gas (Facility ID #111517, Gas Station), Project Site at 300 feet		3.09	--	0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	*Unmitigated*	***Yes***	***Yes***	*No*
	Mitigated	*No*	*No*	*No*
Cumulative Total	Unmitigated	37.57	0.69	<0.06
	Mitigated	15.47	0.48	<0.05
BAAQMD Cumulative-Source Threshold		***100***	***0.8***	***10.0***
Exceed Threshold?	*Unmitigated*	*No*	*No*	*No*
	Mitigated	*No*	*No*	*No*

Note: Values in **bold** exceed a threshold.

Figure 8. Locations of On-Site Sensitive Receptors, On-Site Construction, Existing TAC Sources, and Project Maximum TAC Impacts



GREENHOUSE GAS EMISSIONS

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2, CH_4, and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Recent Regulatory Actions for GHG Emissions

Executive Order S-3-05 – California GHG Reduction Targets

Executive Order (EO) S-3-05 was signed by Governor Arnold Schwarzenegger in 2005 to set GHG emission reduction targets for California. The three targets established by this EO are as follows: (1) reduce California's GHG emissions to 2000 levels by 2010, (2) reduce California's GHG emissions to 1990 levels by 2020, and (3) reduce California's GHG emissions by 80 percent below 1990 levels by 2050.

Assembly Bill 32 – California Global Warming Solutions Act (2006)

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 80 percent below 1990 levels.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State's main strategies to reduce GHGs from business-as-usual emissions projected in 2020 back down to 1990 levels. Business-as-usual (BAU) is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO_2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

Executive Order B-30-15 & Senate Bill 32 GHG Reduction Targets – 2030 GHG Reduction Target

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*.[32] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts,

[32] California Air Resource Board, 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Targets.* November. Web: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf

and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikeable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons (MT) CO_2e per capita (statewide) by 2030 and no more than 2 metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

Executive Order B-55-18 – Carbon Neutrality

In 2018, a new statewide goal was established to achieve carbon neutrality as soon as possible, but no later than 2045, and to maintain net negative emissions thereafter. CARB and other relevant state agencies are tasked with establishing sequestration targets and create policies/programs that would meet this goal.

Senate Bill 375 – California's Regional Transportation and Land Use Planning Efforts (2008)

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be

achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 and 100 – Current Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increases the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2017 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

California Building Standards Code – Title 24 Part 11 & Part 6

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[33] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2019 California Building Standard Code) was effective as of January 1, 2020.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2019 Energy Code) replaced the 2016 Energy Code as of January 1, 2020. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[34]

[33] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.
[34] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.[35] Installing new natural gas infrastructure in new buildings will interfere with this goal. To meet the State's goal, communities have been adopting "Reach" codes that prohibit natural gas connections in new and remodeled buildings.

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations and are regularly updated on a 3-year cycle. The CALGreen standards consist of a set of mandatory standards required for new development, as well as two more voluntary standards known as Tier 1 and Tier 2. The CalGreen standards have recently been updated (2022 version) to require deployment of additional EV chargers in various building types, including multifamily residential and nonresidential land uses. They include requirements for both EV capable parking spaces and the installation of Level 2 EV supply equipment for multifamily residential and nonresidential buildings. The 2022 CALGreen standards include requirements for both EV readiness and the actual installation of EV chargers. The 2022 CALGreen standards include both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions. Providing EV charging infrastructure that meets current CALGreen requirements will not be sufficient to power the anticipated more extensive level of EV penetration in the future that is needed to meet SB 30 climate goals.

SB 743 Transportation Impacts

Senate Bill 743 required lead agencies to abandon the old "level of service" metric for evaluating a project's transportation impacts, which was based solely on the amount of delay experienced by motor vehicles. In response, the Governor's Office of Planning and Research (OPR) developed a VMT metric that considered other factors such as reducing GHG emissions and developing multimodal transportation[36]. A VMT-per-capita metric was adopted into the CEQA Guidelines Section 15064.3 in November 2017. Given current baseline per-capita VMT levels computed by CARB in the 2030 Scoping Plan of 22.24 miles per day for light-duty vehicles and 24.61 miles per day for all vehicle types, the reductions needed to achieve the 2050 climate goal are 16.8 percent for light-duty vehicles and 14.3 percent for all vehicle types combined. Based on this analysis (as well as other factors), OPR recommended using a 15-percent reduction in per capita VMT as an appropriate threshold of significance for evaluating transportation impacts.

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2018, total gross nationwide GHG emissions were 6,676.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[37] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.[38] In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions

[35] California Energy Commission. 2021. F*inal Commission Report: California Building Decarbonization Assessment. Publication Number CEC-400-2021-006-CMF*.August
[36] Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA.* December.
[37] United States Environmental Protection Agency, 2020. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018.* April. Web: https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf
[38] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017.* Web: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf

have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017. The most recent Bay Area emission inventory was computed for the year 2011.[39] The Bay Area GHG emission were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011.

Daly City "Green Vision" Climate Action Plan

The Daly City "Green Vision" Climate Action Plan (CAP)[40] seeks to reduce the City operation's overall carbon footprint through a series of ten goals by the year 2020. The goals cover topics such as reducing solid waste, recycling and reuse of wastewater, preservation of urban forests, adoption of a master pedestrian and bicycle plan, reuse of biosolids, the use of green building standards, and community education. However, the CAP does not have a specific metric ton GHG threshold for project-level construction or operation. Therefore, the BAAQMD's CEQA Air Quality Guideline's thresholds are used.

BAAQMD GHG Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines do not use quantified thresholds for projects that are in a jurisdiction with a qualified GHG reductions plan (i.e., a Climate Action Plan). The plan has to address emissions associated with the period that the project would operate (e.g., beyond year 2020). For quantified emissions, the guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons (MT) per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate.

This assessment uses a "Substantial Progress" efficiency metric of 2.8 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_2e/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.8 is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels.[41] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold. Evidence published by the State indicates the AB 32 goal of reducing statewide GHG emissions to 1990 levels was met prior to 2020. Current State plans are to further reduce emissions to 40% below 1990 levels by 2030. Assuming statewide emissions are at 1990 levels or lower in 2020, it would be logical to reduce the BAAQMD-recommended threshold for meeting the AB 32 threshold by 40% to develop a threshold for 2030.

On April 20, 2022, BAAQMD adopted new thresholds of significance for operational GHG emissions from land use projects for projects beginning the CEQA process. The following

[39] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Web: http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.
[40] Daly City, "Daly City's Green Vision" https://www.dalycity.org/DocumentCenter/View/694/Daly-City-Green-Vision-Final-PDF
[41] Bay Area Air Quality Management District, 2016. *CLE International 12th Annual Super-Conference CEQA Guidelines, Case Law and Policy Update*. December.

framework is how BAAQMD will determine GHG significance moving forward.[42] Note BAAQMD intends that the thresholds apply to projects that begin the CEQA process after adoption of the thresholds, unless otherwise directed by the lead agency. The air quality and GHG assessment was originally completed prior to adoption of these thresholds.

A. Projects must include, at a minimum, the following project design elements:
    a. Buildings
        i. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).
        ii. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
    b. Transportation
        i. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
            1. Residential Projects: 15 percent below the existing VMT per capita
            2. Office Projects: 15 percent below the existing VMT per employee
            3. Retail Projects: no net increase in existing VMT
        ii. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Any new land use project would have to include either section A or B from the above list, not both, to be considered in compliance for GHG emissions from project operation.

Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

[42] Justification Report: BAAQMD CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Project and Plans. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. CalEEMod output is included in *Attachment 2*.

Service Population

The project service population efficiency rate is based on the number of future residents. For this project, the number of future residents was estimated by multiplying the total number of units (i.e., 1,235 units) by the persons per household rate for the City of Daly City found in the California Department of Finance Population and Housing Estimate report.[43] Using the 3.33-person per household 2020 rate, the number of future residents was estimated to be 4,113 residents. This total service population was used to calculate the per capita emissions.

Construction Emissions

GHG emissions associated with construction were computed at 3,101 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully-developed site under the proposed project. As shown in Table 16, the net annual emissions resulting from operation of the proposed project are predicted to be 5,585 MT of CO_2e in 2030. The service population emissions for the year 2030 are predicted to be 1.62 MT/CO_2e/year/service population.

To be considered an exceedance of the threshold, the project emissions must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in the future year of 2030. As shown in Table 16, the project would exceed the annual emissions bright-line threshold of 660 MT CO_2e/year in 2030 but would not exceed the per service population threshold of 2.8 MT of CO_2e/year/service population in 2030. Therefore, the project would not be in exceedance for GHG emissions.

[43] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark*. Sacramento, California. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

Table 16. Annual Project GHG Emissions (CO_2e) in Metric Tons and Per Capita

Source Category	Existing Project in 2022	Proposed Project in 2030
Area	0	15
Energy Consumption	311	3
Mobile	684	6,315
Solid Waste Generation	55	295
Water Usage	43	50
Total (MT CO_2e/year)	1,093	6,678
Net Emissions		**5,585 MT CO_2e/year**
Significance Threshold		***660 MT CO_2e/year***
Service Population Emissions (MT CO_2e/year/service population)		1.62
Significance Threshold		***2.8 in 2030***
Exceeds both thresholds?		*No*

Impact GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Proposed buildings would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficacy standards. To avoid interference with statewide GHG reduction measures identified in CARB's Scoping Plan and SB 100 goals, the Project should include the following measures:

1. Avoid construction of new natural gas connections for residential and office buildings,
    - Conforms – compliance with City Reach Code would prohibit natural gas infrastructure in new buildings.
2. Avoid wasteful or inefficient use of electricity,
    - Conforms – would meet CALGreen Building Standards Code requirements that are considered to be energy efficient.
3. Include electric vehicle charging infrastructure that meets current Building Code CALGreen Tier 2 compliance, and
    - Conforms – Specific development plans are not completed for the entire Precise Plan. The Precise Plan would be required to include electric vehicle charging infrastructure that meets current Building Code CALGreen Tier 2 compliance.
4. Reduce VMT per capita by 15 percent over baseline conditions.
    - Conforms – project is implementing a TDM plan with mitigation measures to reduce project VMT by at least 3 percent in order to meet the 15 percent reduction baseline threshold.

Supporting Documentation

Attachment 1 is the methodology used to compute community risk impacts, including the methods to compute increased cancer risk from exposure to project emissions.

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant. . The operational outputs for existing uses are also included in this attachment. Also included are any modeling assumptions.

Attachment 3 includes the EMFAC2021 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

Attachment 4 is the project health risk assessment. This includes the summary of the dispersion modeling and the cancer risk calculations for construction and operation of the project. The AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 5 includes the cumulative community risk calculations, modeling results, and health risk calculations from sources affecting the MEIs and new project sensitive receptors.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[44] These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.[45] This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.[46] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs is calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency and duration of exposure. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day) or liters per kilogram of body weight per 8-hour period for the case of worker or school child exposures. As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools and daycare facilities, BAAQMD recommends using the 95th percentile 8-hour breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults,

[44] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.
[45] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[46] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

a 25-year exposure period is recommended by the BAAQMD. For school children a 9-year exposure period is recommended by the BAAQMD.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

Cancer Risk (per million) = $CPF \times Inhalation\ Dose \times ASF \times ED/AT \times FAH \times 10^6$

Where:

CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = $C_{air} \times DBR^* \times A \times (EF/365) \times 10^{-6}$

Where:

C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
8HrBR = 8-hour breathing rate (L/kg body weight-8 hours)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

* An 8-hour breathing rate (8HrBR) is used for worker and school child exposures.

The health risk parameters used in this evaluation are summarized as follows:

Parameter	*Exposure Type* →	Infant		Child	Adult
	Age Range →	3rd Trimester	0<2	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95th Percentile Rate		-	1,200	520	240
Inhalation Absorption Factor		1	1	1	1
Averaging Time (years)		70	70	70	70
Exposure Duration (years)		0.25	2	14	14*
Exposure Frequency (days/year)		350	350	350	350*
Age Sensitivity Factor		10	10	3	1
Fraction of Time at Home (FAH)		0.85-1.0	0.85-1.0	0.72-1.0	0.73*

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu g/m^3$).

Annual $PM_{2.5}$ Concentrations

While not a TAC, fine particulate matter ($PM_{2.5}$) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for $PM_{2.5}$ (project level and cumulative) are in terms of an increase in the annual average concentration. When considering $PM_{2.5}$ impacts, the contribution from all sources of $PM_{2.5}$ emissions should be included. For projects with potential impacts from nearby local roadways, the $PM_{2.5}$ impacts should include those from vehicle exhaust emissions, $PM_{2.5}$ generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: Phase 1 - Parcel B

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size
- 201 Dwelling Units
- 8 total project acres disturbed
- 225000 s.f. residential
- 8000 s.f. retail
- 0.5 acres - Park
- 15,000 s.f. other, specify: Common Res / Amenity
- 115000 s.f. parking garage — 345 spaces
- s.f. parking lot — 21 spaces

Construction Hours 8:00 am to 5:00 pm

Pile Driving? Y/N? No

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? Yes

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: ____750 KW_____

Fuel Type: _____Diesel_____

Location in project (Plans Desired if Available): Ground Floor Parcel B

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**7/3/2023**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**7/28/2023**					
1	Concrete/Industrial Saws	81	0.73	8	20	8	9461	**Demolition Volume**
3	Excavators	158	0.38	8	20	8	28819	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	20	8	31616	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	9,238 square feet *or*
								? Hauling volume (tons)
								Any pavement demolished and hauled? ? tons
	Site Preparation	**Start Date:**	**7/29/2023**	**Total phase:**	**10**			
		End Date:	**8/11/2023**					
	Graders	187	0.41			0	0	
3	Rubber Tired Dozers	247	0.4	8	10	8	23712	
4	Tractors/Loaders/Backhoes	97	0.37	8	10	8	11485	
	Grading / Excavation	**Start Date:**	**8/12/2023**	**Total phase:**	**20**			
		End Date:	**9/8/2023**					**Soil Hauling Volume**
1	Excavators	158	0.38	8	20	8	9606	Export volume = 31,930 cubic yards?
1	Graders	187	0.41	8	20	8	12267	Import volume = ? cubic yards?
1	Rubber Tired Dozers	247	0.4	8	20	8	15808	
	Concrete/Industrial Saws	81	0.73			0	0	
3	Tractors/Loaders/Backhoes	97	0.37	8	20	8	17227	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**9/9/2023**	**Total phase:**	**20**			
		End Date:	**10/6/2023**					
1	Tractor/Loader/Backhoe	97	0.37	8	20	8	5742	
1	Excavators	158	0.38	8	20	8	9606	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**10/7/2023**	**Total phase:**	**230**			**Cement Trucks? ?? Total Round-Trips**
		End Date:	**8/23/2024**					
1	Cranes	231	0.29	7	230	7	107854	Electric? (Y/N) ___ Otherwise assumed diesel
3	Forklifts	89	0.2	8	230	8	98256	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	230	8	114374	Or temporary line power? (Y/N) ___
3	Tractors/Loaders/Backhoes	97	0.37	7	230	7	173349	
1	Welders	46	0.45	8	230	8	38088	
	Other Equipment?							
	Building - Interior/Architectural Coating	**Start Date:**	**8/24/2024**	**Total phase:**	**20**			
		End Date:	**9/20/2024**					
1	Air Compressors	78	0.48	6	20	6	4493	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Paving	**Start Date:**	**9/21/2024**	**Total phase:**	**20**			
		Start Date:	**10/18/2024**					
	Cement and Mortar Mixers	9	0.56			0	0	
2	Pavers	130	0.42	8	20	8	17472	**Asphalt? ___ cubic yards or ____ round trips?**
2	Paving Equipment	132	0.36	8	20	8	15206	
2	Rollers	80	0.38	8	20	8	9728	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Phase 2 - Parcels C & D

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size
340 Dwelling Units
15 total project acres disturbed
380,800 s.f. residential
3,000 s.f. retail
2,800 s.f. other, specify: Head Start Preschool
25,000 s.f. other, specify: Common Res / Amenity
175,000 s.f. parking garage ____ spaces
____ s.f. parking lot 46 spaces

Construction Hours 8:00 am to 5:00 pm

Pile Driving? Y/N? Yes

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? Yes
IF YES (if BOTH separate values) -->
Kilowatts/Horsepower: ____750 KW_____
Fuel Type: _____Diesel_____
Location in project (Plans Desired if Available): 1 Gen @ Ground Floor Parcel D

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**11/3/2025**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**11/28/2025**					
1	Concrete/Industrial Saws	81	0.73	8	20	8	9461	**Demolition Volume**
3	Excavators	158	0.38	8	20	8	28819	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	20	8	31616	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	**54,476** square feet *or*
								? Hauling volume (tons)
								Any pavement demolished and hauled? **?** **tons**
	Site Preparation	**Start Date:**	**11/29/2025**	**Total phase:**	**10**			
		End Date:	**12/12/2025**					
	Graders	187	0.41			0	0	
3	Rubber Tired Dozers	247	0.4	8	10	8	23712	
4	Tractors/Loaders/Backhoes	97	0.37	8	10	8	11485	
	Grading / Excavation	**Start Date:**	**12/13/2025**	**Total phase:**	**30**			
		End Date:	**1/23/2026**					**Soil Hauling Volume**
2	Excavators	158	0.38	8	30	8	28819	Export volume = _ cubic yards?
1	Graders	187	0.41	8	30	8	18401	Import volume = **17,340** cubic yards?
1	Rubber Tired Dozers	247	0.4	8	30	8	23712	
2	Scrapers	367	0.48	8	30	8	84557	
2	Tractors/Loaders/Backhoes	97	0.37	8	30	8	17227	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**1/24/2026**	**Total phase:**	**30**			
		End Date:	**3/6/2026**					
1	Tractor/Loader/Backhoe	97	0.37	8	30	8	8614	
1	Excavators	158	0.38	8	30	8	14410	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**3/7/2026**	**Total phase:**	**300**			**Cement Trucks? _?_ Total Round-Trips**
		End Date:	**4/30/2027**					
1	Cranes	231	0.29	7	300	7	140679	Electric? (Y/N) ___ Otherwise assumed diesel
3	Forklifts	89	0.2	8	300	8	128160	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	300	8	149184	Or temporary line power? (Y/N) ___
3	Tractors/Loaders/Backhoes	97	0.37	7	300	7	226107	
1	Welders	46	0.45	8	300	8	49680	
	Other Equipment?							
	Building - Interior/Architectural Coating	**Start Date:**	**5/1/2027**	**Total phase:**	**20**			
		End Date:	**5/28/2027**					
1	Air Compressors	78	0.48	6	20	6	4493	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Paving	**Start Date:**	**5/1/2027**	**Total phase:**	**20**			
		Start Date:	**6/25/2027**					
	Cement and Mortar Mixers	9	0.56			0	0	
2	Pavers	130	0.42	8	20	8	17472	**Asphalt? ___ cubic yards or ____ round trips?**
2	Paving Equipment	132	0.36	8	20	8	15206	
2	Rollers	80	0.38	8	20	8	9728	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Phase 3 - Parcels E & F

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size
572 Dwelling Units
8 total project acres disturbed
640,000 s.f. residential
3,000 s.f. retail
1 acres - Park
35,000 s.f. other, specify: Common Res / Amenity
290,000 s.f. parking garage ____ spaces
____ s.f. parking lot 26 spaces

Construction Hours 8:00 am to 5:00 pm

Pile Driving? Y/N? Yes

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? Yes

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: ____2 @ 750 KW_____

Fuel Type: _____Diesel_____

Location in project (Plans Desired if Available): 1 Gen @ Ground Floor Parcel E, 1 Gen @ Ground Floor Parcel F

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**3/1/2028**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**3/28/2028**					
1	Concrete/Industrial Saws	81	0.73	8	20	8	9461	**Demolition Volume**
3	Excavators	158	0.38	8	20	8	28819	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	20	8	31616	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	54,476 square feet *or*
								? Hauling volume (tons)
								Any pavement demolished and hauled? ? tons
	Site Preparation	**Start Date:**	**3/29/2028**	**Total phase:**	**10**			
		End Date:	**4/11/2028**					
	Graders	187	0.41			0	0	
3	Rubber Tired Dozers	247	0.4	8	10	8	23712	
4	Tractors/Loaders/Backhoes	97	0.37	8	10	8	11485	
	Grading / Excavation	**Start Date:**	**4/12/2028**	**Total phase:**	**20**			
		End Date:	**5/9/2028**					**Soil Hauling Volume**
1	Excavators	158	0.38	8	20	8	9606	Export volume = 9,320 cubic yards?
1	Graders	187	0.41	8	20	8	12267	Import volume = _cubic yards?
1	Rubber Tired Dozers	247	0.4	8	20	8	15808	
	Scrapers	367	0.48			0	0	
3	Tractors/Loaders/Backhoes	97	0.37	8	20	8	17227	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**5/10/2028**	**Total phase:**	**20**			
		End Date:	**6/6/2028**					
1	Tractor/Loader/Backhoe	97	0.37	8	20	8	5742	
1	Excavators	158	0.38	8	20	8	9606	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**6/7/2028**	**Total phase:**	**230**			**Cement Trucks? ?_ Total Round-Trips**
		End Date:	**4/24/2029**					
1	Cranes	231	0.29	7	230	7	107854	Electric? (Y/N) ___ Otherwise assumed diesel
3	Forklifts	89	0.2	8	230	8	98256	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	230	8	114374	Or temporary line power? (Y/N) ___
3	Tractors/Loaders/Backhoes	97	0.37	7	230	7	173349	
1	Welders	46	0.45	8	230	8	38088	
	Other Equipment?							
	Building - Interior/Architectural Coating	**Start Date:**	**4/25/2029**	**Total phase:**	**20**			
		End Date:	**5/22/2029**					
1	Air Compressors	78	0.48	6	20	6	4493	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Paving	**Start Date:**	**5/23/2029**	**Total phase:**	**20**			
		Start Date:	**6/19/2029**					
	Cement and Mortar Mixers	9	0.56			0	0	
2	Pavers	130	0.42	8	20	8	17472	**Asphalt? ___ cubic yards or ____ round trips?**
2	Paving Equipment	132	0.36	8	20	8	15206	
2	Rollers	80	0.38	8	20	8	9728	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Traffic Consultant Trip Gen						CalEEMod Default		
Land Use		**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Apartmetns Mid Rise	DU	1113	8147	8147	***7.32***	5.44	4.91	4.09
						Rev	***6.61***	***5.50***
Retail	KSF	14	529	450	***32.14***	37.75	46.12	21.1
Internal Capture (MU Reduction)			*-79*			*Rev*	***39.27***	***17.97***
Faculty/Staff Housing	DU	122	889	889	***7.29***	5.44	4.91	4.09
			TOTAL	9486		*Rev*	***6.58***	***5.48***
Existing (Office/Various Uses)	KSF	118.19	1053	1053	***8.91***	9.74	2.21	0.7
						Rev	***2.02***	***0.64***
			NET TOTAL	8433				

Table 1: Project Trip Generation (Buildout)

Project Land Use	Size	Unit[1]	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
				In	Out	Total	In	Out	Total
Multifamily Housing[2]	1,113	DUs	8,147	118	394	512	393	231	624
Retail[3]	14	KSF	529	8	5	13	26	28	54
Internal Capture (Mixed-Use Reduction)[4]			*(79)*	*(1)*	*(1)*	*(2)*	*(4)*	*(4)*	*(8)*
Subtotal Project Trips			**8,597**	**125**	**398**	**523**	**415**	**255**	**670**
Existing Uses to Be Eliminated[5]			*(1,053)*	*(115)*	*(78)*	*(193)*	*(71)*	*(108)*	*(179)*
Faculty and Staff Housing (122 units)[6]			889	12	80	92	55	13	68
TOTAL NET NEW TRIPS			**8,433**	**22**	**400**	**422**	**399**	**160**	**559**

Notes:
1. DUs = dwelling units; KSF = 1,000 square feet
2. Multifamily Housing (ITE Land Use Code 220)
   Daily rate: 7.32; AM rate: 0.46 (23% in/77% out); PM rate: 0.56 (63% in/37% out)
3. Shopping Center (ITE Land Use Code 820)
   Daily rate: 37.75; AM rate: 0.94 (62% in/38% out); PM rate: 3.81 (48% in/52% out)
4. Internal Trip Capture – 15% of Retail Trips Associated with Residential Users (ITE Trip Generation Handbook, 3rd Edition)
5. Based on existing driveway counts and trip generation estimates of existing uses to be removed. Existing occupied land uses to be removed at the time baseline traffic counts were taken include - Catholic Youth Organization, Catholic Youth Organization Small Gymnasium, DeLucca's Tae Kwon Do, Family Worship Center, First True Vine Missionary Baptist Church, Iglesia Ni Cristo, New Day Alliance Church, Theravada Dhamma Society, Young World Preschool, Homenetmen - Large Gym, JUHSD District Office, JUHSD Food Storage, JUHSD Special/Adult Ed. Uses to be removed weekday peak hour existing trip generation estimates = DeLucca's Tae Kwon Do – 4 AM/8 PM trips, Young World Preschool – 115 AM/106 PM trips, JUHSD District Office – 56 AM/49 PM trips, JUHSD Special/Adult Ed – 18 AM/16 PM trips.
6. Trip Generation for Faculty and Staff Housing project taken from the approved TIA – *699 Serramonte Faculty Housing, Transportation Impact Analysis*, Hexagon Transportation Consultants, Inc., April 1, 2019.
Source: Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition)

	Unmitigated Total Construction Criteria Air Pollutants						
Phase / Parcel	*Unmitigated*	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
	Year	Tons				MT	
		Construction Equipment					
Phase 1 Parcel	2023	0.10	0.99	0.05	0.04	154.66	
B	2024	1.90	1.35	0.06	0.06	242.03	
Phase 2	2025-2026	0.23	2.11	0.09	0.08	394.16	
Parcels C & D	2027	3.00	0.63	0.03	0.03	123.05	
Phase 3	2028	0.15	1.42	0.06	0.06	257.36	
Parcels E & F	2029	4.90	0.61	0.03	0.02	118.38	
		EMFAC					
Phase 1 Parcel	2023	0.03	0.21	0.01	0.01	174.00	
B	2024	0.04	0.33	0.02	0.01	273.79	
Phase 2	2025-2026	0.08	0.42	0.03	0.01	450.74	
Parcels C & D	2027	0.03	0.16	0.01	0.01	183.12	
Phase 3	2028	0.08	0.38	0.03	0.01	472.80	
Parcels E & F	2029	0.04	0.20	0.02	0.01	256.66	
		Total Construction Emissions by Year					
Phase 1 Parcel	2023	0.13	1.21	0.06	0.05	328.66	
B	2024	1.95	1.67	0.08	0.07	515.82	
Phase 2	2025-2026	0.31	2.53	0.12	0.10	844.90	
Parcels C & D	2027	3.03	0.80	0.04	0.03	306.17	
Phase 3	2028	0.24	1.80	0.09	0.07	730.16	
Parcels E & F	2029	4.94	0.81	0.05	0.03	375.04	
		Total Construction Emissions					
	Tons	10.59	8.82	0.44	0.34	3100.76	
	Pounds/Workdays	*Average Daily Emissions*				Workdays	
Phase 1 Parcel	2023	2.03	18.60	0.92	0.75		**130**
B	2024	18.62	15.99	0.79	0.64		**209**
Phase 2	2025-2026	2.03	16.63	0.80	0.63		**304**
Parcels C & D	2027	48.07	12.66	0.65	0.49		**126**
Phase 3	2028	2.17	16.46	0.87	0.63		**219**
Parcels E & F	2029	**81.00**	13.27	0.74	0.52		**122**
	Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
		Total Construction Emissions					
	Pounds	153.92	93.60	4.76	3.66	0.00	
	Average	19.09	15.89	0.80	0.62	0.00	1110.00
	Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

	Mitigated T4i & 50% VOC Paint Total Construction Criteria Air Pollutants						
Phase / Parcel	*Unmitigated*	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
	Year	Tons				MT	
		Construction Equipment					
Phase 1 Parcel	2023	0.03	0.66	0.004	0.004	154.66	
B	2024	0.94	1.13	0.01	0.01	242.03	
Phase 2	2025-2026	0.08	1.71	0.01	0.01	394.16	
Parcels C & D	2027	1.49	0.58	0.004	0.004	123.05	
Phase 3	2028	0.06	1.14	0.01	0.01	257.36	
Parcels E & F	2029	2.44	0.56	0.004	0.004	118.38	
		EMFAC					
Phase 1 Parcel	2023	0.03	0.21	0.01	0.01	174.00	
B	2024	0.04	0.33	0.02	0.01	273.79	
Phase 2	2025-2026	0.08	0.42	0.03	0.01	450.74	
Parcels C & D	2027	0.03	0.16	0.01	0.01	183.12	
Phase 3	2028	0.08	0.38	0.03	0.01	472.80	
Parcels E & F	2029	0.04	0.20	0.02	0.01	256.66	
		Total Construction Emissions by Year					
Phase 1 Parcel	2023	0.06	0.88	0.02	0.01	328.66	
B	2024	0.98	1.46	0.03	0.02	515.82	
Phase 2	2025-2026	0.16	2.13	0.04	0.02	844.90	
Parcels C & D	2027	1.52	0.74	0.02	0.01	306.17	
Phase 3	2028	0.14	1.53	0.04	0.02	730.16	
Parcels E & F	2029	2.48	0.76	0.02	0.01	375.04	
		Total Construction Emissions					
	Tons	5.35	7.49	0.18	0.10	3100.76	
	Pounds/Workdays	*Average Daily Emissions*				Workdays	
Phase 1 Parcel	2023	0.93	13.51	0.26	0.14		**130**
B	2024	9.38	13.97	0.31	0.19		**209**
Phase 2	2025-2026	1.08	13.98	0.29	0.16		**304**
Parcels C & D	2027	24.16	11.81	0.28	0.15		**126**
Phase 3	2028	1.28	13.94	0.39	0.19		**219**
Parcels E & F	2029	40.74	12.44	0.38	0.18		**122**
	Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
		Total Construction Emissions					
	Pounds	77.56	79.65	1.91	1.02	0.00	
	Average	9.64	13.50	0.32	0.17	0.00	1110.00
	Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Unmitigated Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
CalEEMod						
Area	7.06	0.11	0.05	0.05	tons	
Energy	0.0003	0.003	0.0002	0.0002	tons	
Mobile	3.72	2.15	6.95	1.76	tons	
Stationary	0.16	0.74	0.02	0.02	tons	
Waste					tons	
Water					tons	
Mobile TDM Reduction	-0.11	-0.06	-0.21	-0.05	tons	
TOTAL	10.83	2.94	6.81	1.78		
	Existing Use Emissions					
CalEEMod	1.02	0.49	0.65	0.17	tons	
	Net Annual Operational Emissions					
Tons/year	9.81	2.44	6.16	1.60		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	53.77	13.38	33.76	8.79	pounds	
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Mitigated Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
CalEEMod						
Area	6.59	0.11	0.05	0.05	tons	
Energy	0.0003	0.003	0.0002	0.0002	tons	
Mobile	3.72	2.15	6.95	1.76	tons	
Stationary	0.16	0.74	0.02	0.02	tons	
Waste					tons	
Water					tons	
Mobile TDM Reduction	-0.11	-0.06	-0.21	-0.05	tons	
TOTAL	10.36	2.94	6.81	1.78		
	Existing Use Emissions					
CalEEMod	1.02	0.49	0.65	0.17	tons	
	Net Annual Operational Emissions					
Tons/year	9.34	2.44	6.16	1.60		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	51.19	13.38	33.76	8.79	pounds	
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Category	**CO2e**				
	Project	Existing	Project 2030	Existing	
Area			15.35	0.00	
Energy			3.43	310.46	
Mobile			6510.21	683.75	
Mobile TDM Reduction			-195.31		6314.90
Waste			294.99	55.28	
Water			50.08	43.42	
TOTAL	0.00	0.00	6678.74	1092.91	
Net GHG Emissions		0.00		5585.83	
Service Population	4113				
Per Capita Emissions		0.00		1.62	
	1235	units			
CA DOF2020 =	3.33	pphh			

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

Serremonte del Rey, Daly City - Phase 1 (Parcel B) - Unmitigated Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	201.00	Dwelling Unit	8.00	240,000.00	575
Regional Shopping Center	8.00	1000sqft	0.00	8,000.00	0
Enclosed Parking with Elevator	345.00	Space	0.00	115,000.00	0
Parking Lot	21.00	Space	0.00	8,400.00	0
City Park	0.50	Acre	0.00	22,335.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided land uses - construction information and site plans

Construction Phase - Provided start date, default construction schedule, added trenching

Off-road Equipment - Trenching added

Off-road Equipment - Default construction equip & hours

Grading - grading = net 31,930-cy export

Demolition - Provided existing use SF

Trips and VMT - 0 trips for EMFAC2021 adjustment

Date: 12/17/2021 10:42 AM

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

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	PhaseEndDate	7/26/2024	8/23/2024
tblConstructionPhase	PhaseEndDate	8/23/2024	10/18/2024
tblConstructionPhase	PhaseEndDate	9/8/2023	10/6/2023
tblConstructionPhase	PhaseStartDate	9/9/2023	10/7/2023
tblConstructionPhase	PhaseStartDate	7/27/2024	9/21/2024
tblGrading	MaterialExported	0.00	31,930.00
tblLandUse	LandUseSquareFeet	201,000.00	240,000.00
tblLandUse	LandUseSquareFeet	138,000.00	115,000.00
tblLandUse	LandUseSquareFeet	21,780.00	22,335.00
tblLandUse	LotAcreage	5.29	8.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	3.10	0.00
tblLandUse	LotAcreage	0.19	0.00
tblLandUse	LotAcreage	0.50	0.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblTripsAndVMT	HaulingTripNumber	42.00	0.00
tblTripsAndVMT	HaulingTripNumber	3,991.00	0.00
tblTripsAndVMT	VendorTripNumber	47.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	208.00	0.00
tblTripsAndVMT	WorkerTripNumber	42.00	0.00
tblTripsAndVMT	WorkerTripNumber	42.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00

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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

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					
2023	0.1037	0.9942	0.9775	1.7700e-003	0.1755	0.0466	0.2220	0.0857	0.0434	0.1291	0.0000	153.6038	153.6038	0.0423	0.0000	154.6602
2024	1.9039	1.3456	1.6875	2.7900e-003	1.1800e-003	0.0621	0.0633	3.1000e-004	0.0583	0.0586	0.0000	240.5272	240.5272	0.0597	2.0000e-005	242.0263
Maximum	**1.9039**	**1.3456**	**1.6875**	**2.7900e-003**	**0.1755**	**0.0621**	**0.2220**	**0.0857**	**0.0583**	**0.1291**	**0.0000**	**240.5272**	**240.5272**	**0.0597**	**2.0000e-005**	**242.0263**

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					
2023	0.0319	0.6635	1.1504	1.7700e-003	0.0790	4.0800e-003	0.0830	0.0386	4.0800e-003	0.0427	0.0000	153.6036	153.6036	0.0423	0.0000	154.6600
2024	1.8163	1.1340	1.8595	2.7900e-003	1.1800e-003	0.0123	0.0135	3.1000e-004	0.0119	0.0122	0.0000	240.5269	240.5269	0.0597	2.0000e-005	242.0260
Maximum	**1.8163**	**1.1340**	**1.8595**	**2.7900e-003**	**0.0790**	**0.0123**	**0.0830**	**0.0386**	**0.0119**	**0.0427**	**0.0000**	**240.5269**	**240.5269**	**0.0597**	**2.0000e-005**	**242.0260**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	7.94	23.18	-12.94	0.00	54.63	84.93	66.17	54.81	84.26	70.75	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-3-2023	10-2-2023	0.5973	0.3365
2	10-3-2023	1-2-2024	0.5057	0.3651
3	1-3-2024	4-2-2024	0.4847	0.3720
4	4-3-2024	7-2-2024	0.4847	0.3720
5	7-3-2024	9-30-2024	2.1907	2.1225
		Highest	2.1907	2.1225

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	7/3/2023	7/28/2023	5	20	
2	Site Preparation	Site Preparation	7/29/2023	8/11/2023	5	10	
3	Grading	Grading	8/12/2023	9/8/2023	5	20	
4	Trenching	Trenching	9/9/2023	10/6/2023	5	20	
5	Building Construction	Building Construction	10/7/2023	8/23/2024	5	230	
6	Architectural Coating	Architectural Coating	8/24/2024	9/20/2024	5	20	
7	Paving	Paving	9/21/2024	10/18/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 486,000; Residential Outdoor: 162,000; Non-Residential Indoor: 12,000; Non-Residential Outdoor: 4,000; Striped Parking Area:

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Architectural Coating	Pavers	2	8.00	130	0.42
Architectural Coating	Paving Equipment	2	8.00	132	0.36
Architectural Coating	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

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

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	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5500e-003	0.0000	4.5500e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**4.5500e-003**	**9.9800e-003**	**0.0145**	**6.9000e-004**	**9.2800e-003**	**9.9700e-003**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0500e-003	0.0000	2.0500e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**2.0500e-003**	**6.2000e-004**	**2.6700e-003**	**3.1000e-004**	**6.2000e-004**	**9.3000e-004**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2023

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2023

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					0.0726	0.0000	0.0726	0.0345	0.0000	0.0345	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0726**	**7.7500e-003**	**0.0804**	**0.0345**	**7.1300e-003**	**0.0417**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0327	0.0000	0.0327	0.0155	0.0000	0.0155	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0327**	**4.8000e-004**	**0.0332**	**0.0155**	**4.8000e-004**	**0.0160**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4000e-003	0.0309	0.0550	8.0000e-005		1.5200e-003	1.5200e-003		1.4000e-003	1.4000e-003	0.0000	7.2843	7.2843	2.3600e-003	0.0000	7.3432
Total	**3.4000e-003**	**0.0309**	**0.0550**	**8.0000e-005**		**1.5200e-003**	**1.5200e-003**		**1.4000e-003**	**1.4000e-003**	**0.0000**	**7.2843**	**7.2843**	**2.3600e-003**	**0.0000**	**7.3432**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3300e-003	0.0364	0.0627	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2843	7.2843	2.3600e-003	0.0000	7.3432
Total	**1.3300e-003**	**0.0364**	**0.0627**	**8.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.2843**	**7.2843**	**2.3600e-003**	**0.0000**	**7.3432**

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

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2023

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	0.0472	0.4316	0.4873	8.1000e-004		0.0210	0.0210		0.0198	0.0198	0.0000	69.5414	69.5414	0.0165	0.0000	69.9550
Total	**0.0472**	**0.4316**	**0.4873**	**8.1000e-004**		**0.0210**	**0.0210**		**0.0198**	**0.0198**	**0.0000**	**69.5414**	**69.5414**	**0.0165**	**0.0000**	**69.9550**

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					

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.3274	0.5362	8.1000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	69.5413	69.5413	0.0165	0.0000	69.9549
Total	**0.0160**	**0.3274**	**0.5362**	**8.1000e-004**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**69.5413**	**69.5413**	**0.0165**	**0.0000**	**69.9549**

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

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2024

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	0.1251	1.1427	1.3742	2.2900e-003		0.0521	0.0521		0.0490	0.0490	0.0000	197.0717	197.0717	0.0466	0.0000	198.2368
Total	**0.1251**	**1.1427**	**1.3742**	**2.2900e-003**		**0.0521**	**0.0521**		**0.0490**	**0.0490**	**0.0000**	**197.0717**	**197.0717**	**0.0466**	**0.0000**	**198.2368**

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

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

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0454	0.9275	1.5193	2.2900e-003		7.1900e-003	7.1900e-003		7.1900e-003	7.1900e-003	0.0000	197.0715	197.0715	0.0466	0.0000	198.2366
Total	**0.0454**	**0.9275**	**1.5193**	**2.2900e-003**		**7.1900e-003**	**7.1900e-003**		**7.1900e-003**	**7.1900e-003**	**0.0000**	**197.0715**	**197.0715**	**0.0466**	**0.0000**	**198.2366**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2024

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	1.7569					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1074	0.1644	2.6000e-004		5.2900e-003	5.2900e-003		4.9200e-003	4.9200e-003	0.0000	22.5798	22.5798	6.6200e-003	0.0000	22.7453
Total	**1.7686**	**0.1074**	**0.1644**	**2.6000e-004**		**5.2900e-003**	**5.2900e-003**		**4.9200e-003**	**4.9200e-003**	**0.0000**	**22.5798**	**22.5798**	**6.6200e-003**	**0.0000**	**22.7453**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7569					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1600e-003	0.1084	0.1779	2.6000e-004		2.5700e-003	2.5700e-003		2.3800e-003	2.3800e-003	0.0000	22.5798	22.5798	6.6200e-003	0.0000	22.7453
Total	**1.7641**	**0.1084**	**0.1779**	**2.6000e-004**		**2.5700e-003**	**2.5700e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**22.5798**	**22.5798**	**6.6200e-003**	**0.0000**	**22.7453**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2024

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8800e-003**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	1.9000e-004	2.7300e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.8491	0.8491	2.0000e-005	2.0000e-005	0.8558

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

Total	**3.1000e-004**	**1.9000e-004**	**2.7300e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.8491**	**0.8491**	**2.0000e-005**	**2.0000e-005**	**0.8558**

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	6.6100e-003	0.0978	0.1596	2.3000e-004		2.5300e-003	2.5300e-003		2.3400e-003	2.3400e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6100e-003**	**0.0978**	**0.1596**	**2.3000e-004**		**2.5300e-003**	**2.5300e-003**		**2.3400e-003**	**2.3400e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	1.9000e-004	2.7300e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.8491	0.8491	2.0000e-005	2.0000e-005	0.8558

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

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

Total	3.1000e-004	1.9000e-004	2.7300e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.8491	0.8491	2.0000e-005	2.0000e-005	0.8558

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

Serremonte del Rey, Daly City - Phase 1 (Parcel B) - Mitigated Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	345.00	Space	0.00	115,000.00	0
Parking Lot	21.00	Space	0.00	8,400.00	0
City Park	0.50	Acre	0.00	22,335.00	0
Apartments Mid Rise	201.00	Dwelling Unit	8.00	240,000.00	575
Regional Shopping Center	8.00	1000sqft	0.00	8,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided land uses - construction information and site plans

Construction Phase - Provided start date, default construction schedule, added trenching

Off-road Equipment - Default construction equip & hours

Off-road Equipment - Trenching added

Trips and VMT - 0 trips for EMFAC2021 adjustment

Demolition - Provided existing use SF

Grading - grading = net 31,930-cy export

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

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Architectural Coating - At least 50% of paints have to be super-compliant VOC = effectively 50g/L interior and 75g/L exterior

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	75.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	75.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	31,930.00
tblLandUse	LandUseSquareFeet	138,000.00	115,000.00
tblLandUse	LandUseSquareFeet	21,780.00	22,335.00
tblLandUse	LandUseSquareFeet	201,000.00	240,000.00
tblLandUse	LotAcreage	3.10	0.00
tblLandUse	LotAcreage	0.19	0.00
tblLandUse	LotAcreage	0.50	0.00
tblLandUse	LotAcreage	5.29	8.00
tblLandUse	LotAcreage	0.18	0.00
tblTripsAndVMT	HaulingTripNumber	42.00	0.00
tblTripsAndVMT	HaulingTripNumber	3,991.00	0.00
tblTripsAndVMT	VendorTripNumber	47.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	208.00	0.00
tblTripsAndVMT	WorkerTripNumber	42.00	0.00
tblTripsAndVMT	WorkerTripNumber	42.00	0.00

2.0 Emissions Summary

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

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

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					
2023	0.1037	0.9942	0.9774	1.7700e-003	0.1755	0.0466	0.2220	0.0857	0.0434	0.1291	0.0000	153.5922	153.5922	0.0423	0.0000	154.6485
2024	1.0254	1.3456	1.6875	2.7900e-003	1.1800e-003	0.0621	0.0633	3.1000e-004	0.0583	0.0586	0.0000	240.5272	240.5272	0.0597	2.0000e-005	242.0263
Maximum	**1.0254**	**1.3456**	**1.6875**	**2.7900e-003**	**0.1755**	**0.0621**	**0.2220**	**0.0857**	**0.0583**	**0.1291**	**0.0000**	**240.5272**	**240.5272**	**0.0597**	**2.0000e-005**	**242.0263**

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					
2023	0.0319	0.6634	1.1503	1.7700e-003	0.0790	4.0800e-003	0.0830	0.0386	4.0800e-003	0.0427	0.0000	153.5920	153.5920	0.0423	0.0000	154.6483
2024	0.9379	1.1340	1.8595	2.7900e-003	1.1800e-003	0.0123	0.0135	3.1000e-004	0.0119	0.0122	0.0000	240.5269	240.5269	0.0597	2.0000e-005	242.0260
Maximum	**0.9379**	**1.1340**	**1.8595**	**2.7900e-003**	**0.0790**	**0.0123**	**0.0830**	**0.0386**	**0.0119**	**0.0427**	**0.0000**	**240.5269**	**240.5269**	**0.0597**	**2.0000e-005**	**242.0260**

	ROG	NOx	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

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Percent Reduction	**14.11**	**23.18**	**-12.94**	**0.00**	**54.63**	**84.93**	**66.17**	**54.81**	**84.26**	**70.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-3-2023**	**10-2-2023**	0.5973	0.3364
2	**10-3-2023**	**1-2-2024**	0.5057	0.3651
3	**1-3-2024**	**4-2-2024**	0.4847	0.3720
4	**4-3-2024**	**7-2-2024**	0.4847	0.3720
5	**7-3-2024**	**9-30-2024**	1.3123	1.2441
		Highest	1.3123	1.2441

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	1.6613	0.0279	2.1331	1.3500e-003		0.0996	0.0996		0.0996	0.0996	9.1635	6.2085	15.3720	0.0171	6.0000e-004	15.9781
Energy	9.3500e-003	0.0800	0.0348	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	230.5178	230.5178	0.0241	4.4000e-003	232.4322
Mobile	0.4718	0.4191	4.4677	9.1400e-003	1.0690	5.9500e-003	1.0749	0.2855	5.5300e-003	0.2911	0.0000	843.0604	843.0604	0.0581	0.0377	855.7368
Waste						0.0000	0.0000		0.0000	0.0000	20.4818	0.0000	20.4818	1.2104	0.0000	50.7428
Water						0.0000	0.0000		0.0000	0.0000	4.3427	9.8373	14.1800	0.4476	0.0107	28.5669
Total	**2.1425**	**0.5270**	**6.6355**	**0.0110**	**1.0690**	**0.1120**	**1.1810**	**0.2855**	**0.1116**	**0.3971**	**33.9881**	**1,089.6239**	**1,123.6120**	**1.7574**	**0.0534**	**1,183.4567**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	1.6613	0.0279	2.1331	1.3500e-003		0.0996	0.0996		0.0996	0.0996	9.1635	6.2085	15.3720	0.0171	6.0000e-004	15.9781
Energy	9.3500e-003	0.0800	0.0348	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	230.5178	230.5178	0.0241	4.4000e-003	232.4322
Mobile	0.4718	0.4191	4.4677	9.1400e-003	1.0690	5.9500e-003	1.0749	0.2855	5.5300e-003	0.2911	0.0000	843.0604	843.0604	0.0581	0.0377	855.7368
Waste						0.0000	0.0000		0.0000	0.0000	20.4818	0.0000	20.4818	1.2104	0.0000	50.7428
Water						0.0000	0.0000		0.0000	0.0000	4.3427	9.8373	14.1800	0.4476	0.0107	28.5669
Total	**2.1425**	**0.5270**	**6.6355**	**0.0110**	**1.0690**	**0.1120**	**1.1810**	**0.2855**	**0.1116**	**0.3971**	**33.9881**	**1,089.6239**	**1,123.6120**	**1.7574**	**0.0534**	**1,183.4567**

	ROG	NOx	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**

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	7/3/2023	7/28/2023	5	20	
2	Site Preparation	Site Preparation	7/29/2023	8/11/2023	5	10	
3	Grading	Grading	8/12/2023	9/8/2023	5	20	
4	Trenching	Trenching	9/9/2023	10/6/2023	5	20	

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

5	Building Construction	Building Construction	10/7/2023	8/23/2024	5	230	
6	Architectural Coating	Architectural Coating	8/24/2024	9/20/2024	5	20	
7	Paving	Paving	9/21/2024	10/18/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 486,000; Residential Outdoor: 162,000; Non-Residential Indoor: 12,000; Non-Residential Outdoor: 4,000; Striped Parking Area:

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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

Architectural Coating	Pavers	2	8.00	130	0.42
Architectural Coating	Paving Equipment	2	8.00	132	0.36
Architectural Coating	Rollers	2	8.00	80	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5500e-003	0.0000	4.5500e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**4.5500e-003**	**9.9800e-003**	**0.0145**	**6.9000e-004**	**9.2800e-003**	**9.9700e-003**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0500e-003	0.0000	2.0500e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**2.0500e-003**	**6.2000e-004**	**2.6700e-003**	**3.1000e-004**	**6.2000e-004**	**9.3000e-004**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2023

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0726	0.0000	0.0726	0.0345	0.0000	0.0345	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0726**	**7.7500e-003**	**0.0804**	**0.0345**	**7.1300e-003**	**0.0417**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0327	0.0000	0.0327	0.0155	0.0000	0.0155	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0327**	**4.8000e-004**	**0.0332**	**0.0155**	**4.8000e-004**	**0.0160**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2023

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4000e-003	0.0308	0.0549	8.0000e-005		1.5200e-003	1.5200e-003		1.3900e-003	1.3900e-003	0.0000	7.2727	7.2727	2.3500e-003	0.0000	7.3315
Total	**3.4000e-003**	**0.0308**	**0.0549**	**8.0000e-005**		**1.5200e-003**	**1.5200e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**7.2727**	**7.2727**	**2.3500e-003**	**0.0000**	**7.3315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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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					
Off-Road	1.3300e-003	0.0363	0.0626	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2727	7.2727	2.3500e-003	0.0000	7.3315
Total	**1.3300e-003**	**0.0363**	**0.0626**	**8.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.2727**	**7.2727**	**2.3500e-003**	**0.0000**	**7.3315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2023

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					

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

Off-Road	0.0472	0.4316	0.4873	8.1000e-004		0.0210	0.0210		0.0198	0.0198	0.0000	69.5414	69.5414	0.0165	0.0000	69.9550
Total	**0.0472**	**0.4316**	**0.4873**	**8.1000e-004**		**0.0210**	**0.0210**		**0.0198**	**0.0198**	**0.0000**	**69.5414**	**69.5414**	**0.0165**	**0.0000**	**69.9550**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.3274	0.5362	8.1000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	69.5413	69.5413	0.0165	0.0000	69.9549

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Total	**0.0160**	**0.3274**	**0.5362**	**8.1000e-004**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**69.5413**	**69.5413**	**0.0165**	**0.0000**	**69.9549**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2024

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	0.1251	1.1427	1.3742	2.2900e-003		0.0521	0.0521		0.0490	0.0490	0.0000	197.0717	197.0717	0.0466	0.0000	198.2368
Total	**0.1251**	**1.1427**	**1.3742**	**2.2900e-003**		**0.0521**	**0.0521**		**0.0490**	**0.0490**	**0.0000**	**197.0717**	**197.0717**	**0.0466**	**0.0000**	**198.2368**

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0454	0.9275	1.5193	2.2900e-003		7.1900e-003	7.1900e-003		7.1900e-003	7.1900e-003	0.0000	197.0715	197.0715	0.0466	0.0000	198.2366
Total	**0.0454**	**0.9275**	**1.5193**	**2.2900e-003**		**7.1900e-003**	**7.1900e-003**		**7.1900e-003**	**7.1900e-003**	**0.0000**	**197.0715**	**197.0715**	**0.0466**	**0.0000**	**198.2366**

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2024

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	0.8785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1074	0.1644	2.6000e-004		5.2900e-003	5.2900e-003		4.9200e-003	4.9200e-003	0.0000	22.5798	22.5798	6.6200e-003	0.0000	22.7453
Total	**0.8902**	**0.1074**	**0.1644**	**2.6000e-004**		**5.2900e-003**	**5.2900e-003**		**4.9200e-003**	**4.9200e-003**	**0.0000**	**22.5798**	**22.5798**	**6.6200e-003**	**0.0000**	**22.7453**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1600e-003	0.1084	0.1779	2.6000e-004		2.5700e-003	2.5700e-003		2.3800e-003	2.3800e-003	0.0000	22.5798	22.5798	6.6200e-003	0.0000	22.7453
Total	**0.8856**	**0.1084**	**0.1779**	**2.6000e-004**		**2.5700e-003**	**2.5700e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**22.5798**	**22.5798**	**6.6200e-003**	**0.0000**	**22.7453**

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2024

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8800e-003**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	1.9000e-004	2.7300e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.8491	0.8491	2.0000e-005	2.0000e-005	0.8558
Total	**3.1000e-004**	**1.9000e-004**	**2.7300e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.8491**	**0.8491**	**2.0000e-005**	**2.0000e-005**	**0.8558**

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	6.6100e-003	0.0978	0.1596	2.3000e-004		2.5300e-003	2.5300e-003		2.3400e-003	2.3400e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6100e-003**	**0.0978**	**0.1596**	**2.3000e-004**		**2.5300e-003**	**2.5300e-003**		**2.3400e-003**	**2.3400e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	1.9000e-004	2.7300e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.8491	0.8491	2.0000e-005	2.0000e-005	0.8558
Total	**3.1000e-004**	**1.9000e-004**	**2.7300e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.8491**	**0.8491**	**2.0000e-005**	**2.0000e-005**	**0.8558**

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	0.4718	0.4191	4.4677	9.1400e-003	1.0690	5.9500e-003	1.0749	0.2855	5.5300e-003	0.2911	0.0000	843.0604	843.0604	0.0581	0.0377	855.7368
Unmitigated	0.4718	0.4191	4.4677	9.1400e-003	1.0690	5.9500e-003	1.0749	0.2855	5.5300e-003	0.2911	0.0000	843.0604	843.0604	0.0581	0.0377	855.7368

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4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,093.44	986.91	822.09	2,400,738	2,400,738
City Park	0.39	0.98	1.10	1,228	1,228
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	302.00	368.96	168.80	512,907	512,907
Total	1,395.83	1,356.85	991.99	2,914,872	2,914,872

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.457911	0.074699	0.239011	0.149017	0.025897	0.006576	0.010546	0.001994	0.001422	0.000553	0.029236	0.000429	0.002710
City Park	0.457911	0.074699	0.239011	0.149017	0.025897	0.006576	0.010546	0.001994	0.001422	0.000553	0.029236	0.000429	0.002710
Enclosed Parking with Elevator	0.457911	0.074699	0.239011	0.149017	0.025897	0.006576	0.010546	0.001994	0.001422	0.000553	0.029236	0.000429	0.002710
Parking Lot	0.457911	0.074699	0.239011	0.149017	0.025897	0.006576	0.010546	0.001994	0.001422	0.000553	0.029236	0.000429	0.002710
Regional Shopping Center	0.457911	0.074699	0.239011	0.149017	0.025897	0.006576	0.010546	0.001994	0.001422	0.000553	0.029236	0.000429	0.002710

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.0103	138.0103	0.0223	2.7100e-003	139.3750
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.0103	138.0103	0.0223	2.7100e-003	139.3750
NaturalGas Mitigated	9.3500e-003	0.0800	0.0348	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	92.5075	92.5075	1.7700e-003	1.7000e-003	93.0572
NaturalGas Unmitigated	9.3500e-003	0.0800	0.0348	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	92.5075	92.5075	1.7700e-003	1.7000e-003	93.0572

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.69705e+006	9.1500e-003	0.0782	0.0333	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	90.5608	90.5608	1.7400e-003	1.6600e-003	91.0989
City Park	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	36480	2.0000e-004	1.7900e-003	1.5000e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9467	1.9467	4.0000e-005	4.0000e-005	1.9583

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

Total		**9.3500e-003**	**0.0800**	**0.0348**	**5.1000e-004**		**6.4600e-003**	**6.4600e-003**		**6.4600e-003**	**6.4600e-003**	**0.0000**	**92.5075**	**92.5075**	**1.7800e-003**	**1.7000e-003**	**93.0572**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.69705e+006	9.1500e-003	0.0782	0.0333	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	90.5608	90.5608	1.7400e-003	1.6600e-003	91.0989
City Park	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	36480	2.0000e-004	1.7900e-003	1.5000e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9467	1.9467	4.0000e-005	4.0000e-005	1.9583
Total		**9.3500e-003**	**0.0800**	**0.0348**	**5.1000e-004**		**6.4600e-003**	**6.4600e-003**		**6.4600e-003**	**6.4600e-003**	**0.0000**	**92.5075**	**92.5075**	**1.7800e-003**	**1.7000e-003**	**93.0572**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

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

Apartments Mid Rise	781160	72.2759	0.0117	1.4200e-003	72.9906
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	625600	57.8829	9.3600e-003	1.1400e-003	58.4552
Parking Lot	2940	0.2720	4.0000e-005	1.0000e-005	0.2747
Regional Shopping Center	81920	7.5796	1.2300e-003	1.5000e-004	7.6545
Total		**138.0103**	**0.0223**	**2.7200e-003**	**139.3750**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	781160	72.2759	0.0117	1.4200e-003	72.9906
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	625600	57.8829	9.3600e-003	1.1400e-003	58.4552
Parking Lot	2940	0.2720	4.0000e-005	1.0000e-005	0.2747
Regional Shopping Center	81920	7.5796	1.2300e-003	1.5000e-004	7.6545
Total		**138.0103**	**0.0223**	**2.7200e-003**	**139.3750**

6.0 Area Detail

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

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	1.6613	0.0279	2.1331	1.3500e-003		0.0996	0.0996		0.0996	0.0996	9.1635	6.2085	15.3720	0.0171	6.0000e-004	15.9781
Unmitigated	1.6613	0.0279	2.1331	1.3500e-003		0.0996	0.0996		0.0996	0.0996	9.1635	6.2085	15.3720	0.0171	6.0000e-004	15.9781

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	0.1757					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4638	0.0107	0.6386	1.2700e-003		0.0913	0.0913		0.0913	0.0913	9.1635	3.7639	12.9274	0.0147	6.0000e-004	13.4747
Landscaping	0.0451	0.0172	1.4945	8.0000e-005		8.2900e-003	8.2900e-003		8.2900e-003	8.2900e-003	0.0000	2.4446	2.4446	2.3500e-003	0.0000	2.5034
Total	**1.6613**	**0.0279**	**2.1331**	**1.3500e-003**		**0.0996**	**0.0996**		**0.0996**	**0.0996**	**9.1635**	**6.2085**	**15.3720**	**0.0171**	**6.0000e-004**	**15.9781**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.1757					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4638	0.0107	0.6386	1.2700e-003		0.0913	0.0913		0.0913	0.0913	9.1635	3.7639	12.9274	0.0147	6.0000e-004	13.4747
Landscaping	0.0451	0.0172	1.4945	8.0000e-005		8.2900e-003	8.2900e-003		8.2900e-003	8.2900e-003	0.0000	2.4446	2.4446	2.3500e-003	0.0000	2.5034
Total	**1.6613**	**0.0279**	**2.1331**	**1.3500e-003**		**0.0996**	**0.0996**		**0.0996**	**0.0996**	**9.1635**	**6.2085**	**15.3720**	**0.0171**	**6.0000e-004**	**15.9781**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

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

Mitigated	14.1800	0.4476	0.0107	28.5669
Unmitigated	14.1800	0.4476	0.0107	28.5669

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.096 / 8.25615	13.3848	0.4282	0.0103	27.1470
City Park	0 / 0.595741	0.1929	3.0000e-005	0.0000	0.1948
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.59258 / 0.363194	0.6023	0.0194	4.6000e-004	1.2250
Total		**14.1800**	**0.4476**	**0.0107**	**28.5669**

Mitigated

	Indoor/Outdoor Use	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

Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.096 / 8.25615	13.3848	0.4282	0.0103	27.1470
City Park	0 / 0.595741	0.1929	3.0000e-005	0.0000	0.1948
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.59258 / 0.363194	0.6023	0.0194	4.6000e-004	1.2250
Total		**14.1800**	**0.4476**	**0.0107**	**28.5669**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.4818	1.2104	0.0000	50.7428
Unmitigated	20.4818	1.2104	0.0000	50.7428

8.2 Waste by Land Use

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	92.46	18.7685	1.1092	0.0000	46.4983
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	8.4	1.7051	0.1008	0.0000	4.2244
Total		**20.4818**	**1.2104**	**0.0000**	**50.7428**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	92.46	18.7685	1.1092	0.0000	46.4983
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Serremonte del Rey, Daly City - Phase 1 (Parcel B) Construction - San Mateo County, Annual

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

Regional Shopping Center	8.4	1.7051	0.1008	0.0000	4.2244
Total		**20.4818**	**1.2104**	**0.0000**	**50.7428**

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

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) - Unmitigated Construction

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	340.00	Dwelling Unit	15.00	405,800.00	972
Regional Shopping Center	3.00	1000sqft	0.00	3,000.00	0
Enclosed Parking with Elevator	175.00	1000sqft	0.00	175,000.00	0
Parking Lot	46.00	Space	0.00	18,400.00	0
Day-Care Center	2.80	1000sqft	0.00	2,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2028
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided land uses - construction information

Construction Phase - Provided start date, default construction schedule, added trenching

Off-road Equipment - Trenching added

Off-road Equipment - Default construction equip & hours

Grading - grading = net 17,340-cy import

Demolition - Provided existing use SF

Trips and VMT - 0 trips for EMFAC2021 adjustment

Date: 12/17/2021 4:34 PM

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	PhaseEndDate	5/14/2027	5/28/2027
tblConstructionPhase	PhaseEndDate	3/19/2027	4/30/2027
tblConstructionPhase	PhaseEndDate	4/16/2027	6/25/2027
tblConstructionPhase	PhaseStartDate	4/17/2027	5/1/2027
tblConstructionPhase	PhaseStartDate	1/24/2026	3/7/2026
tblConstructionPhase	PhaseStartDate	3/20/2027	5/29/2027
tblGrading	MaterialImported	0.00	17,340.00
tblLandUse	LandUseSquareFeet	340,000.00	405,800.00
tblLandUse	LotAcreage	8.95	15.00
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	4.02	0.00
tblLandUse	LotAcreage	0.41	0.00
tblLandUse	LotAcreage	0.06	0.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblTripsAndVMT	HaulingTripNumber	248.00	0.00
tblTripsAndVMT	HaulingTripNumber	2,168.00	0.00
tblTripsAndVMT	VendorTripNumber	69.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00

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

tblTripsAndVMT	WorkerTripNumber	328.00	0.00
tblTripsAndVMT	WorkerTripNumber	66.00	0.00
tblTripsAndVMT	WorkerTripNumber	66.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0522	0.4998	0.4549	9.8000e-004	0.2129	0.0213	0.2343	0.0814	0.0197	0.1011	0.0000	86.1602	86.1602	0.0264	0.0000	86.8193
2026	0.1755	1.6101	2.0273	3.5400e-003	0.0999	0.0678	0.1677	0.0334	0.0635	0.0970	0.0000	305.4203	305.4203	0.0769	0.0000	307.3416
2027	2.9968	0.6335	0.8555	1.4200e-003	0.0000	0.0274	0.0274	0.0000	0.0257	0.0257	0.0000	122.2979	122.2979	0.0301	0.0000	123.0493
Maximum	**2.9968**	**1.6101**	**2.0273**	**3.5400e-003**	**0.2129**	**0.0678**	**0.2343**	**0.0814**	**0.0635**	**0.1011**	**0.0000**	**305.4203**	**305.4203**	**0.0769**	**0.0000**	**307.3416**

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

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

Year	tons/yr										MT/yr					
2025	0.0159	0.3216	0.6002	9.8000e-004	0.0958	1.5900e-003	0.0974	0.0366	1.5900e-003	0.0382	0.0000	86.1601	86.1601	0.0264	0.0000	86.8192
2026	0.0677	1.3860	2.3187	3.5400e-003	0.0450	0.0101	0.0551	0.0151	0.0101	0.0252	0.0000	305.4199	305.4199	0.0769	0.0000	307.3413
2027	2.9540	0.5802	0.9599	1.4200e-003	0.0000	4.0500e-003	4.0500e-003	0.0000	4.0500e-003	4.0500e-003	0.0000	122.2977	122.2977	0.0301	0.0000	123.0491
Maximum	**2.9540**	**1.3860**	**2.3187**	**3.5400e-003**	**0.0958**	**0.0101**	**0.0974**	**0.0366**	**0.0101**	**0.0382**	**0.0000**	**305.4199**	**305.4199**	**0.0769**	**0.0000**	**307.3413**

	ROG	NOx	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	**5.80**	**16.61**	**-16.21**	**0.00**	**55.00**	**86.47**	**63.54**	**54.99**	**85.53**	**69.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-3-2025**	**2-2-2026**	0.8091	0.5133
2	**2-3-2026**	**5-2-2026**	0.3143	0.2761
3	**5-3-2026**	**8-2-2026**	0.4546	0.3761
4	**8-3-2026**	**11-2-2026**	0.4546	0.3761
5	**11-3-2026**	**2-2-2027**	0.4546	0.3761
6	**2-3-2027**	**5-2-2027**	0.6400	0.5655
7	**5-3-2027**	**8-2-2027**	2.8253	2.8322
		Highest	2.8253	2.8322

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	11/3/2025	11/28/2025	5	20	
2	Site Preparation	Site Preparation	11/29/2025	12/12/2025	5	10	

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

3	Grading	Grading	12/13/2025	1/23/2026	5	30	
4	Trenching	Trenching	1/24/2026	3/6/2026	5	30	
5	Building Construction	Building Construction	3/7/2026	4/30/2027	5	300	
6	Architectural Coating	Architectural Coating	5/1/2027	5/28/2027	5	20	
7	Paving	Paving	5/29/2027	6/25/2027	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 821,745; Residential Outdoor: 273,915; Non-Residential Indoor: 8,700; Non-Residential Outdoor: 2,900; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	2	8.00	367	0.48
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

Unmitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0268	0.0000	0.0268	4.0600e-003	0.0000	4.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1920	0.1942	3.9000e-004		8.5300e-003	8.5300e-003		7.9200e-003	7.9200e-003	0.0000	33.9977	33.9977	9.4900e-003	0.0000	34.2350
Total	**0.0209**	**0.1920**	**0.1942**	**3.9000e-004**	**0.0268**	**8.5300e-003**	**0.0353**	**4.0600e-003**	**7.9200e-003**	**0.0120**	**0.0000**	**33.9977**	**33.9977**	**9.4900e-003**	**0.0000**	**34.2350**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	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	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9976	33.9976	9.4900e-003	0.0000	34.2349
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0121**	**6.2000e-004**	**0.0127**	**1.8300e-003**	**6.2000e-004**	**2.4500e-003**	**0.0000**	**33.9976**	**33.9976**	**9.4900e-003**	**0.0000**	**34.2349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.9000e-004**	**0.0983**	**5.4300e-003**	**0.1037**	**0.0505**	**5.0000e-003**	**0.0555**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2025

Unmitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0879	0.0000	0.0879	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0189	0.1816	0.1712	4.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	35.4290	35.4290	0.0115	0.0000	35.7155
Total	**0.0189**	**0.1816**	**0.1712**	**4.0000e-004**	**0.0879**	**7.3500e-003**	**0.0952**	**0.0268**	**6.7600e-003**	**0.0336**	**0.0000**	**35.4290**	**35.4290**	**0.0115**	**0.0000**	**35.7155**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0395	0.0000	0.0395	0.0121	0.0000	0.0121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5700e-003	0.1253	0.2387	4.0000e-004		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	35.4290	35.4290	0.0115	0.0000	35.7155
Total	**6.5700e-003**	**0.1253**	**0.2387**	**4.0000e-004**	**0.0395**	**6.6000e-004**	**0.0402**	**0.0121**	**6.6000e-004**	**0.0127**	**0.0000**	**35.4290**	**35.4290**	**0.0115**	**0.0000**	**35.7155**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2026

Unmitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0999	0.0000	0.0999	0.0334	0.0000	0.0334	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0247	0.2375	0.2238	5.3000e-004		9.6100e-003	9.6100e-003		8.8400e-003	8.8400e-003	0.0000	46.3303	46.3303	0.0150	0.0000	46.7049
Total	**0.0247**	**0.2375**	**0.2238**	**5.3000e-004**	**0.0999**	**9.6100e-003**	**0.1095**	**0.0334**	**8.8400e-003**	**0.0423**	**0.0000**	**46.3303**	**46.3303**	**0.0150**	**0.0000**	**46.7049**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0450	0.0000	0.0450	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5900e-003	0.1638	0.3121	5.3000e-004		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	46.3302	46.3302	0.0150	0.0000	46.7048
Total	**8.5900e-003**	**0.1638**	**0.3121**	**5.3000e-004**	**0.0450**	**8.6000e-004**	**0.0458**	**0.0151**	**8.6000e-004**	**0.0159**	**0.0000**	**46.3302**	**46.3302**	**0.0150**	**0.0000**	**46.7048**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2026

Unmitigated Construction On-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4900e-003	0.0384	0.0824	1.2000e-004		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	10.9362	10.9362	3.5400e-003	0.0000	11.0246
Total	**4.4900e-003**	**0.0384**	**0.0824**	**1.2000e-004**		**1.7100e-003**	**1.7100e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**10.9362**	**10.9362**	**3.5400e-003**	**0.0000**	**11.0246**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Category	tons/yr										MT/yr					
Off-Road	2.0000e-003	0.0546	0.0941	1.2000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	10.9362	10.9362	3.5400e-003	0.0000	11.0246
Total	**2.0000e-003**	**0.0546**	**0.0941**	**1.2000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**10.9362**	**10.9362**	**3.5400e-003**	**0.0000**	**11.0246**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2026

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					

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

Off-Road	0.1463	1.3343	1.7211	2.8800e-003		0.0565	0.0565		0.0531	0.0531	0.0000	248.1538	248.1538	0.0583	0.0000	249.6122
Total	**0.1463**	**1.3343**	**1.7211**	**2.8800e-003**		**0.0565**	**0.0565**		**0.0531**	**0.0531**	**0.0000**	**248.1538**	**248.1538**	**0.0583**	**0.0000**	**249.6122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0571	1.1676	1.9125	2.8800e-003		9.0500e-003	9.0500e-003		9.0500e-003	9.0500e-003	0.0000	248.1535	248.1535	0.0583	0.0000	249.6119

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

Total	**0.0571**	**1.1676**	**1.9125**	**2.8800e-003**		**9.0500e-003**	**9.0500e-003**		**9.0500e-003**	**9.0500e-003**	**0.0000**	**248.1535**	**248.1535**	**0.0583**	**0.0000**	**249.6119**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2027

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	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213	0.0000	99.7254	99.7254	0.0234	0.0000	100.3114
Total	**0.0588**	**0.5362**	**0.6916**	**1.1600e-003**		**0.0227**	**0.0227**		**0.0213**	**0.0213**	**0.0000**	**99.7254**	**99.7254**	**0.0234**	**0.0000**	**100.3114**

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.4692	0.7686	1.1600e-003		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	99.7253	99.7253	0.0234	0.0000	100.3113
Total	**0.0229**	**0.4692**	**0.7686**	**1.1600e-003**		**3.6400e-003**	**3.6400e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**99.7253**	**99.7253**	**0.0234**	**0.0000**	**100.3113**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2027

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	2.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**2.9289**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**2.9277**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2027

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) - Mitigated Construction

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	2.80	1000sqft	0.00	2,800.00	0
Enclosed Parking with Elevator	175.00	1000sqft	0.00	175,000.00	0
Parking Lot	46.00	Space	0.00	18,400.00	0
Apartments Mid Rise	340.00	Dwelling Unit	15.00	405,800.00	972
Regional Shopping Center	3.00	1000sqft	0.00	3,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2028
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided land uses - construction information

Construction Phase - Provided start date, default construction schedule, added trenching

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default construction equip & hours

Off-road Equipment -

Off-road Equipment - Trenching added

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

Trips and VMT - 0 trips for EMFAC2021 adjustment

Demolition - Provided existing use SF

Grading - grading = net 17,340-cy import

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Architectural Coating - At least 50% of paints have to be super-compliant VOC = effectively 50g/L interior and 75g/L exterior

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	75.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	75.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialImported	0.00	17,340.00
tblLandUse	LandUseSquareFeet	340,000.00	405,800.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.02	0.00
tblLandUse	LotAcreage	0.41	0.00
tblLandUse	LotAcreage	8.95	15.00
tblLandUse	LotAcreage	0.07	0.00
tblTripsAndVMT	HaulingTripNumber	248.00	0.00
tblTripsAndVMT	HaulingTripNumber	2,168.00	0.00
tblTripsAndVMT	VendorTripNumber	69.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	328.00	0.00
tblTripsAndVMT	WorkerTripNumber	66.00	0.00
tblTripsAndVMT	WorkerTripNumber	66.00	0.00

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

tblTripsAndVMT	WorkerTripNumber	15.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0522	0.4998	0.4549	9.8000e-004	0.2129	0.0213	0.2343	0.0814	0.0197	0.1011	0.0000	86.1602	86.1602	0.0264	0.0000	86.8193
2026	0.1755	1.6101	2.0272	3.5400e-003	0.0999	0.0678	0.1677	0.0334	0.0635	0.0970	0.0000	305.4029	305.4029	0.0769	0.0000	307.3241
2027	1.5332	0.6335	0.8555	1.4200e-003	0.0000	0.0274	0.0274	0.0000	0.0257	0.0257	0.0000	122.2979	122.2979	0.0301	0.0000	123.0493
Maximum	**1.5332**	**1.6101**	**2.0272**	**3.5400e-003**	**0.2129**	**0.0678**	**0.2343**	**0.0814**	**0.0635**	**0.1011**	**0.0000**	**305.4029**	**305.4029**	**0.0769**	**0.0000**	**307.3241**

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					
2025	0.0159	0.3216	0.6002	9.8000e-004	0.0958	1.5900e-003	0.0974	0.0366	1.5900e-003	0.0382	0.0000	86.1601	86.1601	0.0264	0.0000	86.8192
2026	0.0677	1.3859	2.3185	3.5400e-003	0.0450	0.0101	0.0551	0.0151	0.0101	0.0252	0.0000	305.4025	305.4025	0.0769	0.0000	307.3237

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2027	1.4904	0.5802	0.9599	1.4200e-003	0.0000	4.0500e-003	4.0500e-003	0.0000	4.0500e-003	4.0500e-003	0.0000	122.2977	122.2977	0.0301	0.0000	123.0491
Maximum	**1.4904**	**1.3859**	**2.3185**	**3.5400e-003**	**0.0958**	**0.0101**	**0.0974**	**0.0366**	**0.0101**	**0.0382**	**0.0000**	**305.4025**	**305.4025**	**0.0769**	**0.0000**	**307.3237**

	ROG	NOx	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	**10.61**	**16.61**	**-16.21**	**0.00**	**55.00**	**86.47**	**63.54**	**54.99**	**85.53**	**69.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-3-2025**	**2-2-2026**	0.8091	0.5133
2	**2-3-2026**	**5-2-2026**	0.3143	0.2760
3	**5-3-2026**	**8-2-2026**	0.4546	0.3761
4	**8-3-2026**	**11-2-2026**	0.4546	0.3761
5	**11-3-2026**	**2-2-2027**	0.4546	0.3761
6	**2-3-2027**	**5-2-2027**	0.5354	0.4610
7	**5-3-2027**	**8-2-2027**	1.4662	1.4731
		Highest	1.4662	1.4731

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	11/3/2025	11/28/2025	5	20	
2	Site Preparation	Site Preparation	11/29/2025	12/12/2025	5	10	
3	Grading	Grading	12/13/2025	1/23/2026	5	30	
4	Trenching	Trenching	1/24/2026	3/6/2026	5	30	
5	Building Construction	Building Construction	3/7/2026	4/30/2027	5	300	
6	Architectural Coating	Architectural Coating	5/1/2027	5/28/2027	5	20	

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7	Paving	Paving	5/29/2027	6/25/2027	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 821,745; Residential Outdoor: 273,915; Non-Residential Indoor: 8,700; Non-Residential Outdoor: 2,900; Striped Parking Area:

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42

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Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

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					0.0268	0.0000	0.0268	4.0600e-003	0.0000	4.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Off-Road	0.0209	0.1920	0.1942	3.9000e-004		8.5300e-003	8.5300e-003		7.9200e-003	7.9200e-003	0.0000	33.9977	33.9977	9.4900e-003	0.0000	34.2350
Total	**0.0209**	**0.1920**	**0.1942**	**3.9000e-004**	**0.0268**	**8.5300e-003**	**0.0353**	**4.0600e-003**	**7.9200e-003**	**0.0120**	**0.0000**	**33.9977**	**33.9977**	**9.4900e-003**	**0.0000**	**34.2350**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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

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Off-Road	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9976	33.9976	9.4900e-003	0.0000	34.2349
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0121**	**6.2000e-004**	**0.0127**	**1.8300e-003**	**6.2000e-004**	**2.4500e-003**	**0.0000**	**33.9976**	**33.9976**	**9.4900e-003**	**0.0000**	**34.2349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2025

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.9000e-004**	**0.0983**	**5.4300e-003**	**0.1037**	**0.0505**	**5.0000e-003**	**0.0555**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2025

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					0.0879	0.0000	0.0879	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Off-Road	0.0189	0.1816	0.1712	4.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	35.4290	35.4290	0.0115	0.0000	35.7155
Total	**0.0189**	**0.1816**	**0.1712**	**4.0000e-004**	**0.0879**	**7.3500e-003**	**0.0952**	**0.0268**	**6.7600e-003**	**0.0336**	**0.0000**	**35.4290**	**35.4290**	**0.0115**	**0.0000**	**35.7155**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0395	0.0000	0.0395	0.0121	0.0000	0.0121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Off-Road	6.5700e-003	0.1253	0.2387	4.0000e-004		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	35.4290	35.4290	0.0115	0.0000	35.7155
Total	**6.5700e-003**	**0.1253**	**0.2387**	**4.0000e-004**	**0.0395**	**6.6000e-004**	**0.0402**	**0.0121**	**6.6000e-004**	**0.0127**	**0.0000**	**35.4290**	**35.4290**	**0.0115**	**0.0000**	**35.7155**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2026

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					0.0999	0.0000	0.0999	0.0334	0.0000	0.0334	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Off-Road	0.0247	0.2375	0.2238	5.3000e-004		9.6100e-003	9.6100e-003		8.8400e-003	8.8400e-003	0.0000	46.3303	46.3303	0.0150	0.0000	46.7049
Total	**0.0247**	**0.2375**	**0.2238**	**5.3000e-004**	**0.0999**	**9.6100e-003**	**0.1095**	**0.0334**	**8.8400e-003**	**0.0423**	**0.0000**	**46.3303**	**46.3303**	**0.0150**	**0.0000**	**46.7049**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0450	0.0000	0.0450	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Off-Road	8.5900e-003	0.1638	0.3121	5.3000e-004		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	46.3302	46.3302	0.0150	0.0000	46.7048
Total	**8.5900e-003**	**0.1638**	**0.3121**	**5.3000e-004**	**0.0450**	**8.6000e-004**	**0.0458**	**0.0151**	**8.6000e-004**	**0.0159**	**0.0000**	**46.3302**	**46.3302**	**0.0150**	**0.0000**	**46.7048**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4900e-003	0.0384	0.0823	1.2000e-004		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	10.9188	10.9188	3.5300e-003	0.0000	11.0071

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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

Total	**4.4900e-003**	**0.0384**	**0.0823**	**1.2000e-004**		**1.7100e-003**	**1.7100e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**10.9188**	**10.9188**	**3.5300e-003**	**0.0000**	**11.0071**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-003	0.0545	0.0939	1.2000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	10.9188	10.9188	3.5300e-003	0.0000	11.0071
Total	**2.0000e-003**	**0.0545**	**0.0939**	**1.2000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**10.9188**	**10.9188**	**3.5300e-003**	**0.0000**	**11.0071**

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2026

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	0.1463	1.3343	1.7211	2.8800e-003		0.0565	0.0565		0.0531	0.0531	0.0000	248.1538	248.1538	0.0583	0.0000	249.6122
Total	**0.1463**	**1.3343**	**1.7211**	**2.8800e-003**		**0.0565**	**0.0565**		**0.0531**	**0.0531**	**0.0000**	**248.1538**	**248.1538**	**0.0583**	**0.0000**	**249.6122**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0571	1.1676	1.9125	2.8800e-003		9.0500e-003	9.0500e-003		9.0500e-003	9.0500e-003	0.0000	248.1535	248.1535	0.0583	0.0000	249.6119
Total	**0.0571**	**1.1676**	**1.9125**	**2.8800e-003**		**9.0500e-003**	**9.0500e-003**		**9.0500e-003**	**9.0500e-003**	**0.0000**	**248.1535**	**248.1535**	**0.0583**	**0.0000**	**249.6119**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2027

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	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213	0.0000	99.7254	99.7254	0.0234	0.0000	100.3114
Total	**0.0588**	**0.5362**	**0.6916**	**1.1600e-003**		**0.0227**	**0.0227**		**0.0213**	**0.0213**	**0.0000**	**99.7254**	**99.7254**	**0.0234**	**0.0000**	**100.3114**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.4692	0.7686	1.1600e-003		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	99.7253	99.7253	0.0234	0.0000	100.3113
Total	**0.0229**	**0.4692**	**0.7686**	**1.1600e-003**		**3.6400e-003**	**3.6400e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**99.7253**	**99.7253**	**0.0234**	**0.0000**	**100.3113**

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

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2027

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	1.4636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.4653**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.4641**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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

Serremonte del Rey, Daly City - Phase 2 (Parcels C & D) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2027

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

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

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) - Unmitigated Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	572.00	Dwelling Unit	8.00	675,000.00	1636
Regional Shopping Center	3.00	1000sqft	0.00	3,000.00	0
Enclosed Parking with Elevator	290.00	1000sqft	0.00	290,000.00	0
Parking Lot	26.00	Space	0.00	10,400.00	0
City Park	1.00	Acre	0.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2031
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided land uses - construction information

Construction Phase - Provided start date, default construction schedule, added trenching

Off-road Equipment - Default construction equip & hours

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching added

Off-road Equipment -

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Off-road Equipment -

Off-road Equipment -

Grading - grading = net 9,320-cy export

Demolition - Provided existing use SF

Trips and VMT - 0 trips for EMFAC2021 adjustment

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	PhaseEndDate	3/27/2029	4/24/2029
tblConstructionPhase	PhaseEndDate	4/24/2029	6/19/2029
tblConstructionPhase	PhaseStartDate	5/10/2028	6/7/2028
tblConstructionPhase	PhaseStartDate	3/28/2029	5/23/2029
tblGrading	MaterialExported	0.00	9,320.00
tblLandUse	LandUseSquareFeet	572,000.00	675,000.00
tblLandUse	LotAcreage	15.05	8.00
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	6.66	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	1.00	0.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblTripsAndVMT	HaulingTripNumber	248.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,165.00	0.00
tblTripsAndVMT	VendorTripNumber	118.00	0.00
tblTripsAndVMT	WorkerTripNumber	111.00	0.00
tblTripsAndVMT	WorkerTripNumber	557.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2028	0.1527	1.4196	1.6744	2.9500e-003	0.1965	0.0604	0.2568	0.0889	0.0564	0.1453	0.0000	255.7121	255.7121	0.0660	0.0000	257.3631
2029	4.8968	0.6085	0.8233	1.3600e-003	0.0000	0.0263	0.0263	0.0000	0.0247	0.0247	0.0000	117.6595	117.6595	0.0290	0.0000	118.3836
Maximum	**4.8968**	**1.4196**	**1.6744**	**2.9500e-003**	**0.1965**	**0.0604**	**0.2568**	**0.0889**	**0.0564**	**0.1453**	**0.0000**	**255.7121**	**255.7121**	**0.0660**	**0.0000**	**257.3631**

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					
2028	0.0553	1.1436	1.9368	2.9500e-003	0.0884	7.8100e-003	0.0962	0.0400	7.8100e-003	0.0478	0.0000	255.7118	255.7118	0.0660	0.0000	257.3628
2029	4.8557	0.5584	0.9241	1.3600e-003	0.0000	3.8800e-003	3.8800e-003	0.0000	3.8800e-003	3.8800e-003	0.0000	117.6593	117.6593	0.0290	0.0000	118.3835

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Maximum	**4.8557**	**1.1436**	**1.9368**	**2.9500e-003**	**0.0884**	**7.8100e-003**	**0.0962**	**0.0400**	**7.8100e-003**	**0.0478**	**0.0000**	**255.7118**	**255.7118**	**0.0660**	**0.0000**	**257.3628**

	ROG	NOx	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	**2.74**	**16.08**	**-14.54**	**0.00**	**55.00**	**86.52**	**64.65**	**55.01**	**85.59**	**69.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2028**	**5-31-2028**	0.5422	0.3439
2	**6-1-2028**	**8-31-2028**	0.4311	0.3596
3	**9-1-2028**	**11-30-2028**	0.4497	0.3720
4	**12-1-2028**	**2-28-2029**	0.4448	0.3679
5	**3-1-2029**	**5-31-2029**	5.1454	5.0992
6	**6-1-2029**	**8-31-2029**	0.0644	0.0704
		Highest	5.1454	5.0992

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	3/1/2028	3/28/2028	5	20	
2	Site Preparation	Site Preparation	3/29/2028	4/11/2028	5	10	
3	Grading	Grading	4/12/2028	5/9/2028	5	20	
4	Trenching	Trenching	5/10/2028	6/6/2028	5	20	
5	Building Construction	Building Construction	6/7/2028	4/24/2029	5	230	
6	Architectural Coating	Architectural Coating	4/25/2029	5/22/2029	5	20	
7	Paving	Paving	5/23/2029	6/19/2029	5	20	

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

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 1,366,875; Residential Outdoor: 455,625; Non-Residential Indoor: 4,500; Non-Residential Outdoor: 1,500; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38

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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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2028

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					0.0268	0.0000	0.0268	4.0600e-003	0.0000	4.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1920	0.1942	3.9000e-004		8.5300e-003	8.5300e-003		7.9200e-003	7.9200e-003	0.0000	33.9977	33.9977	9.4900e-003	0.0000	34.2350
Total	**0.0209**	**0.1920**	**0.1942**	**3.9000e-004**	**0.0268**	**8.5300e-003**	**0.0353**	**4.0600e-003**	**7.9200e-003**	**0.0120**	**0.0000**	**33.9977**	**33.9977**	**9.4900e-003**	**0.0000**	**34.2350**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9976	33.9976	9.4900e-003	0.0000	34.2349
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0121**	**6.2000e-004**	**0.0127**	**1.8300e-003**	**6.2000e-004**	**2.4500e-003**	**0.0000**	**33.9976**	**33.9976**	**9.4900e-003**	**0.0000**	**34.2349**

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2028

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.9000e-004**	**0.0983**	**5.4300e-003**	**0.1037**	**0.0505**	**5.0000e-003**	**0.0555**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2028

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					0.0714	0.0000	0.0714	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1532	0.1454	3.0000e-004		6.2400e-003	6.2400e-003		5.7400e-003	5.7400e-003	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806
Total	**0.0152**	**0.1532**	**0.1454**	**3.0000e-004**	**0.0714**	**6.2400e-003**	**0.0776**	**0.0343**	**5.7400e-003**	**0.0401**	**0.0000**	**26.0698**	**26.0698**	**8.4300e-003**	**0.0000**	**26.2806**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0321	0.0000	0.0321	0.0155	0.0000	0.0155	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0321**	**4.8000e-004**	**0.0326**	**0.0155**	**4.8000e-004**	**0.0159**	**0.0000**	**26.0698**	**26.0698**	**8.4300e-003**	**0.0000**	**26.2806**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0000e-003	0.0256	0.0550	8.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	7.2908	7.2908	2.3600e-003	0.0000	7.3497
Total	**3.0000e-003**	**0.0256**	**0.0550**	**8.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**7.2908**	**7.2908**	**2.3600e-003**	**0.0000**	**7.3497**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3300e-003	0.0364	0.0627	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2908	7.2908	2.3600e-003	0.0000	7.3497
Total	**1.3300e-003**	**0.0364**	**0.0627**	**8.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.2908**	**7.2908**	**2.3600e-003**	**0.0000**	**7.3497**

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

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2028

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	0.1012	0.9228	1.1903	2.0000e-003		0.0390	0.0390		0.0367	0.0367	0.0000	171.6204	171.6204	0.0403	0.0000	172.6290
Total	**0.1012**	**0.9228**	**1.1903**	**2.0000e-003**		**0.0390**	**0.0390**		**0.0367**	**0.0367**	**0.0000**	**171.6204**	**171.6204**	**0.0403**	**0.0000**	**172.6290**

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					

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0395	0.8075	1.3227	2.0000e-003		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	171.6202	171.6202	0.0403	0.0000	172.6288
Total	**0.0395**	**0.8075**	**1.3227**	**2.0000e-003**		**6.2600e-003**	**6.2600e-003**		**6.2600e-003**	**6.2600e-003**	**0.0000**	**171.6202**	**171.6202**	**0.0403**	**0.0000**	**172.6288**

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

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2029

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	0.0561	0.5113	0.6595	1.1100e-003		0.0216	0.0216		0.0204	0.0204	0.0000	95.0870	95.0870	0.0224	0.0000	95.6458
Total	**0.0561**	**0.5113**	**0.6595**	**1.1100e-003**		**0.0216**	**0.0216**		**0.0204**	**0.0204**	**0.0000**	**95.0870**	**95.0870**	**0.0224**	**0.0000**	**95.6458**

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

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Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.4474	0.7328	1.1100e-003		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	95.0869	95.0869	0.0224	0.0000	95.6457
Total	**0.0219**	**0.4474**	**0.7328**	**1.1100e-003**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**95.0869**	**95.0869**	**0.0224**	**0.0000**	**95.6457**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2029

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	4.8299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**4.8316**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.8299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**4.8304**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2029

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) - Mitigated Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	290.00	1000sqft	0.00	290,000.00	0
Parking Lot	26.00	Space	0.00	10,400.00	0
City Park	1.00	Acre	0.00	43,560.00	0
Apartments Mid Rise	572.00	Dwelling Unit	8.00	675,000.00	1636
Regional Shopping Center	3.00	1000sqft	0.00	3,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2031
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided land uses - construction information

Construction Phase - Provided start date, default construction schedule, added trenching

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default construction equip & hours

Off-road Equipment -

Off-road Equipment -

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Off-road Equipment -

Off-road Equipment - Trenching added

Trips and VMT - 0 trips for EMFAC2021 adjustment

Demolition - Provided existing use SF

Grading - grading = net 9,320-cy export

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Architectural Coating - At least 50% of paints have to be super-compliant VOC = effectively 50g/L interior and 75g/L exterior

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	75.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	75.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	9,320.00
tblLandUse	LandUseSquareFeet	572,000.00	675,000.00
tblLandUse	LotAcreage	6.66	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	1.00	0.00
tblLandUse	LotAcreage	15.05	8.00
tblLandUse	LotAcreage	0.07	0.00
tblTripsAndVMT	HaulingTripNumber	248.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,165.00	0.00
tblTripsAndVMT	VendorTripNumber	118.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	557.00	0.00
tblTripsAndVMT	WorkerTripNumber	111.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

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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

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					
2028	0.1527	1.4196	1.6743	2.9500e-003	0.1965	0.0604	0.2568	0.0889	0.0564	0.1453	0.0000	255.7006	255.7006	0.0660	0.0000	257.3514
2029	2.4819	0.6085	0.8233	1.3600e-003	0.0000	0.0263	0.0263	0.0000	0.0247	0.0247	0.0000	117.6595	117.6595	0.0290	0.0000	118.3836
Maximum	**2.4819**	**1.4196**	**1.6743**	**2.9500e-003**	**0.1965**	**0.0604**	**0.2568**	**0.0889**	**0.0564**	**0.1453**	**0.0000**	**255.7006**	**255.7006**	**0.0660**	**0.0000**	**257.3514**

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					
2028	0.0553	1.1435	1.9367	2.9500e-003	0.0884	7.8100e-003	0.0962	0.0400	7.8100e-003	0.0478	0.0000	255.7002	255.7002	0.0660	0.0000	257.3511
2029	2.4407	0.5584	0.9241	1.3600e-003	0.0000	3.8800e-003	3.8800e-003	0.0000	3.8800e-003	3.8800e-003	0.0000	117.6593	117.6593	0.0290	0.0000	118.3835
Maximum	**2.4407**	**1.1435**	**1.9367**	**2.9500e-003**	**0.0884**	**7.8100e-003**	**0.0962**	**0.0400**	**7.8100e-003**	**0.0478**	**0.0000**	**255.7002**	**255.7002**	**0.0660**	**0.0000**	**257.3511**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	5.26	16.08	-14.54	0.00	55.00	86.52	64.65	55.01	85.59	69.60	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2028	5-31-2028	0.5422	0.3438
2	6-1-2028	8-31-2028	0.4311	0.3596
3	9-1-2028	11-30-2028	0.4497	0.3720
4	12-1-2028	2-28-2029	0.4448	0.3679
5	3-1-2029	5-31-2029	2.7304	2.6843
6	6-1-2029	8-31-2029	0.0644	0.0704
		Highest	2.7304	2.6843

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	3/1/2028	3/28/2028	5	20	
2	Site Preparation	Site Preparation	3/29/2028	4/11/2028	5	10	
3	Grading	Grading	4/12/2028	5/9/2028	5	20	
4	Trenching	Trenching	5/10/2028	6/6/2028	5	20	
5	Building Construction	Building Construction	6/7/2028	4/24/2029	5	230	
6	Architectural Coating	Architectural Coating	4/25/2029	5/22/2029	5	20	
7	Paving	Paving	5/23/2029	6/19/2029	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

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

Residential Indoor: 1,366,875; Residential Outdoor: 455,625; Non-Residential Indoor: 4,500; Non-Residential Outdoor: 1,500; Striped Parking Area:

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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

Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2028

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					0.0268	0.0000	0.0268	4.0600e-003	0.0000	4.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1920	0.1942	3.9000e-004		8.5300e-003	8.5300e-003		7.9200e-003	7.9200e-003	0.0000	33.9977	33.9977	9.4900e-003	0.0000	34.2350
Total	**0.0209**	**0.1920**	**0.1942**	**3.9000e-004**	**0.0268**	**8.5300e-003**	**0.0353**	**4.0600e-003**	**7.9200e-003**	**0.0120**	**0.0000**	**33.9977**	**33.9977**	**9.4900e-003**	**0.0000**	**34.2350**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9976	33.9976	9.4900e-003	0.0000	34.2349
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0121**	**6.2000e-004**	**0.0127**	**1.8300e-003**	**6.2000e-004**	**2.4500e-003**	**0.0000**	**33.9976**	**33.9976**	**9.4900e-003**	**0.0000**	**34.2349**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2028

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.9000e-004**	**0.0983**	**5.4300e-003**	**0.1037**	**0.0505**	**5.0000e-003**	**0.0555**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2028

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					0.0714	0.0000	0.0714	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1532	0.1454	3.0000e-004		6.2400e-003	6.2400e-003		5.7400e-003	5.7400e-003	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806
Total	**0.0152**	**0.1532**	**0.1454**	**3.0000e-004**	**0.0714**	**6.2400e-003**	**0.0776**	**0.0343**	**5.7400e-003**	**0.0401**	**0.0000**	**26.0698**	**26.0698**	**8.4300e-003**	**0.0000**	**26.2806**

Unmitigated Construction Off-Site

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Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0321	0.0000	0.0321	0.0155	0.0000	0.0155	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0321**	**4.8000e-004**	**0.0326**	**0.0155**	**4.8000e-004**	**0.0159**	**0.0000**	**26.0698**	**26.0698**	**8.4300e-003**	**0.0000**	**26.2806**

Mitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Trenching - 2028

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	2.9900e-003	0.0256	0.0549	8.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	7.2792	7.2792	2.3500e-003	0.0000	7.3381
Total	**2.9900e-003**	**0.0256**	**0.0549**	**8.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**7.2792**	**7.2792**	**2.3500e-003**	**0.0000**	**7.3381**

Unmitigated Construction Off-Site

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3300e-003	0.0363	0.0626	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2792	7.2792	2.3500e-003	0.0000	7.3380
Total	**1.3300e-003**	**0.0363**	**0.0626**	**8.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.2792**	**7.2792**	**2.3500e-003**	**0.0000**	**7.3380**

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

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2028

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	0.1012	0.9228	1.1903	2.0000e-003		0.0390	0.0390		0.0367	0.0367	0.0000	171.6204	171.6204	0.0403	0.0000	172.6290
Total	**0.1012**	**0.9228**	**1.1903**	**2.0000e-003**		**0.0390**	**0.0390**		**0.0367**	**0.0367**	**0.0000**	**171.6204**	**171.6204**	**0.0403**	**0.0000**	**172.6290**

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					

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0395	0.8075	1.3227	2.0000e-003		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	171.6202	171.6202	0.0403	0.0000	172.6288
Total	**0.0395**	**0.8075**	**1.3227**	**2.0000e-003**		**6.2600e-003**	**6.2600e-003**		**6.2600e-003**	**6.2600e-003**	**0.0000**	**171.6202**	**171.6202**	**0.0403**	**0.0000**	**172.6288**

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

Serremonte del Rey, Daly City - Phase 3 (Parcels E & F) Construction - San Mateo County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2029

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	0.0561	0.5113	0.6595	1.1100e-003		0.0216	0.0216		0.0204	0.0204	0.0000	95.0870	95.0870	0.0224	0.0000	95.6458
Total	**0.0561**	**0.5113**	**0.6595**	**1.1100e-003**		**0.0216**	**0.0216**		**0.0204**	**0.0204**	**0.0000**	**95.0870**	**95.0870**	**0.0224**	**0.0000**	**95.6458**

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

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

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.4474	0.7328	1.1100e-003		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	95.0869	95.0869	0.0224	0.0000	95.6457
Total	**0.0219**	**0.4474**	**0.7328**	**1.1100e-003**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**95.0869**	**95.0869**	**0.0224**	**0.0000**	**95.6457**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2029

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	2.4150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**2.4167**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**2.4155**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Paving - 2029

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	2.80	1000sqft	0.00	2,800.00	0
Enclosed Parking with Elevator	580.00	1000sqft	0.00	580,000.00	0
Parking Lot	93.00	Space	0.00	37,200.00	0
City Park	1.50	Acre	0.00	65,340.00	0
Apartments Mid Rise	1,113.00	Dwelling Unit	31.00	1,320,800.00	3183
Regional Shopping Center	14.00	1000sqft	0.00	14,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2030
Utility Company	Peninsula Clean Energy				
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 - Provided land uses - Project description, traffic, and construction worksheets

Construction Phase - Operational Model Only

Off-road Equipment - Operational Model Only

Grading -

Vehicle Trips - Provided traffic trip gen rates with reductions.

Vehicle Emission Factors - EMFAC2021 Vehicle Emissions Factors San Mateo County 2030

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Woodstoves - No hearths/fireplaces

Energy Use - Daly City reach code bans natural gas in residential/daycare, remains for retail (potential commerical kitchens). Natural gas intensity added into electricity energy intensity.

Water And Wastewater - Wastewater treatment 100% aerobic, no septic tanks of lagoons.

Fleet Mix - EMFAC2021 Fleet Mix San Mateo County 2030

Stationary Sources - Emergency Generators and Fire Pumps - Four (4), 750-kW, 1,005-HP diesel powered generators (Parcels B, D, E, F), 50 hrs/year

Stationary Sources - Emergency Generators and Fire Pumps EF -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	LightingElect	741.44	742.21
tblEnergyUse	NT24E	3,054.10	3,055.81
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	T24NG	5,828.01	0.00
tblEnergyUse	T24NG	14.70	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	166.95	0.00
tblFireplaces	NumberNoFireplace	44.52	0.00
tblFireplaces	NumberWood	189.21	0.00
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	LDA	0.43	0.39

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tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003

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

tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003

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tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblLandUse	LandUseSquareFeet	1,113,000.00	1,320,800.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	13.31	0.00
tblLandUse	LotAcreage	0.84	0.00
tblLandUse	LotAcreage	1.50	0.00
tblLandUse	LotAcreage	29.29	31.00
tblLandUse	LotAcreage	0.32	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,005.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblVehicleEF	HHD	0.04	0.23
tblVehicleEF	HHD	0.19	0.18

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tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.46	4.57
tblVehicleEF	HHD	1.06	1.44
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	860.08	692.39
tblVehicleEF	HHD	1,405.74	1,514.61
tblVehicleEF	HHD	0.35	0.20
tblVehicleEF	HHD	0.14	0.11
tblVehicleEF	HHD	0.23	0.24
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.01	3.57
tblVehicleEF	HHD	2.73	1.87
tblVehicleEF	HHD	2.40	2.65
tblVehicleEF	HHD	2.7380e-003	2.0820e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	2.6200e-003	1.9850e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7570e-003	8.6350e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	6.0000e-006	2.3600e-004
tblVehicleEF	HHD	3.2200e-004	6.5000e-005
tblVehicleEF	HHD	0.36	0.27
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	1.5200e-004	3.9100e-004

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tblVehicleEF	HHD	1.4000e-005	2.0000e-006
tblVehicleEF	HHD	7.5950e-003	5.6170e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	6.0000e-006	2.3600e-004
tblVehicleEF	HHD	3.2200e-004	6.5000e-005
tblVehicleEF	HHD	0.43	0.53
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.23	0.21
tblVehicleEF	HHD	1.5200e-004	3.9100e-004
tblVehicleEF	HHD	1.6000e-005	2.0000e-006
tblVehicleEF	LDA	8.5200e-004	1.0910e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.38	0.43
tblVehicleEF	LDA	1.70	2.12
tblVehicleEF	LDA	197.85	218.14
tblVehicleEF	LDA	41.93	56.38
tblVehicleEF	LDA	2.9620e-003	2.8890e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.12	0.18
tblVehicleEF	LDA	0.04	6.3460e-003
tblVehicleEF	LDA	8.6000e-004	8.0000e-004
tblVehicleEF	LDA	1.2290e-003	1.4710e-003
tblVehicleEF	LDA	0.02	2.2210e-003
tblVehicleEF	LDA	7.9200e-004	7.3600e-004
tblVehicleEF	LDA	1.1300e-003	1.3530e-003
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06

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tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.9250e-003	3.8520e-003
tblVehicleEF	LDA	0.03	0.16
tblVehicleEF	LDA	0.12	0.20
tblVehicleEF	LDA	1.9570e-003	2.1560e-003
tblVehicleEF	LDA	4.1500e-004	5.5700e-004
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	4.2480e-003	5.6170e-003
tblVehicleEF	LDA	0.03	0.16
tblVehicleEF	LDA	0.13	0.22
tblVehicleEF	LDT1	1.1990e-003	2.2150e-003
tblVehicleEF	LDT1	0.03	0.06
tblVehicleEF	LDT1	0.44	0.66
tblVehicleEF	LDT1	1.81	2.84
tblVehicleEF	LDT1	236.05	285.53
tblVehicleEF	LDT1	50.08	72.58
tblVehicleEF	LDT1	3.1790e-003	4.5000e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.03	0.05
tblVehicleEF	LDT1	0.14	0.23
tblVehicleEF	LDT1	0.04	7.9630e-003
tblVehicleEF	LDT1	9.9000e-004	1.0380e-003
tblVehicleEF	LDT1	1.3910e-003	1.7650e-003
tblVehicleEF	LDT1	0.02	2.7870e-003
tblVehicleEF	LDT1	9.1100e-004	9.5500e-004
tblVehicleEF	LDT1	1.2790e-003	1.6230e-003
tblVehicleEF	LDT1	0.03	0.31

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tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.4220e-003	9.0470e-003
tblVehicleEF	LDT1	0.05	0.24
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.3360e-003	2.8230e-003
tblVehicleEF	LDT1	4.9600e-004	7.1700e-004
tblVehicleEF	LDT1	0.03	0.31
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	6.4520e-003	0.01
tblVehicleEF	LDT1	0.05	0.24
tblVehicleEF	LDT1	0.14	0.29
tblVehicleEF	LDT2	1.3110e-003	1.4510e-003
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.47	0.52
tblVehicleEF	LDT2	2.22	2.46
tblVehicleEF	LDT2	241.10	296.13
tblVehicleEF	LDT2	51.42	74.14
tblVehicleEF	LDT2	3.4280e-003	3.6740e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.15	0.21
tblVehicleEF	LDT2	0.04	7.7670e-003
tblVehicleEF	LDT2	9.8200e-004	8.8300e-004
tblVehicleEF	LDT2	1.3140e-003	1.4990e-003
tblVehicleEF	LDT2	0.02	2.7180e-003
tblVehicleEF	LDT2	9.0400e-004	8.1200e-004
tblVehicleEF	LDT2	1.2080e-003	1.3780e-003

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tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00
tblVehicleEF	LDT2	4.7820e-003	5.1450e-003
tblVehicleEF	LDT2	0.05	0.12
tblVehicleEF	LDT2	0.16	0.22
tblVehicleEF	LDT2	2.3850e-003	2.9270e-003
tblVehicleEF	LDT2	5.0900e-004	7.3300e-004
tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00
tblVehicleEF	LDT2	6.9400e-003	7.4940e-003
tblVehicleEF	LDT2	0.05	0.12
tblVehicleEF	LDT2	0.17	0.24
tblVehicleEF	LHD1	3.9860e-003	4.1000e-003
tblVehicleEF	LHD1	4.4850e-003	2.8900e-003
tblVehicleEF	LHD1	7.3910e-003	0.01
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.40	0.47
tblVehicleEF	LHD1	0.86	2.16
tblVehicleEF	LHD1	8.08	7.48
tblVehicleEF	LHD1	689.79	647.78
tblVehicleEF	LHD1	9.94	16.36
tblVehicleEF	LHD1	7.0800e-004	5.3200e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.20	0.30

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tblVehicleEF	LHD1	9.1600e-004	6.1700e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	9.8940e-003	9.2640e-003
tblVehicleEF	LHD1	5.8960e-003	6.6480e-003
tblVehicleEF	LHD1	2.0100e-004	1.0400e-004
tblVehicleEF	LHD1	8.7600e-004	5.9000e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4740e-003	2.3160e-003
tblVehicleEF	LHD1	5.5970e-003	6.3310e-003
tblVehicleEF	LHD1	1.8500e-004	9.6000e-005
tblVehicleEF	LHD1	8.5500e-004	0.06
tblVehicleEF	LHD1	0.04	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.9000e-004	0.00
tblVehicleEF	LHD1	0.07	0.04
tblVehicleEF	LHD1	0.14	0.08
tblVehicleEF	LHD1	0.03	0.07
tblVehicleEF	LHD1	7.8000e-005	7.3000e-005
tblVehicleEF	LHD1	6.7280e-003	6.3250e-003
tblVehicleEF	LHD1	9.8000e-005	1.6200e-004
tblVehicleEF	LHD1	8.5500e-004	0.06
tblVehicleEF	LHD1	0.04	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.9000e-004	0.00
tblVehicleEF	LHD1	0.08	0.04
tblVehicleEF	LHD1	0.14	0.08
tblVehicleEF	LHD1	0.04	0.07
tblVehicleEF	LHD2	2.4420e-003	2.3110e-003
tblVehicleEF	LHD2	4.9160e-003	3.5820e-003

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tblVehicleEF	LHD2	4.1310e-003	7.5520e-003
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.44	0.32
tblVehicleEF	LHD2	0.49	1.19
tblVehicleEF	LHD2	12.62	12.88
tblVehicleEF	LHD2	670.16	684.09
tblVehicleEF	LHD2	6.49	8.64
tblVehicleEF	LHD2	1.6020e-003	1.5980e-003
tblVehicleEF	LHD2	0.06	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.21	0.28
tblVehicleEF	LHD2	0.12	0.16
tblVehicleEF	LHD2	1.4740e-003	1.4290e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.0700e-004	5.0000e-005
tblVehicleEF	LHD2	1.4100e-003	1.3670e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7060e-003	2.6170e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9000e-005	4.6000e-005
tblVehicleEF	LHD2	4.2300e-004	0.03
tblVehicleEF	LHD2	0.02	8.3390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0400e-004	0.00
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.05	0.05

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tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	1.2100e-004	1.2300e-004
tblVehicleEF	LHD2	6.4670e-003	6.5820e-003
tblVehicleEF	LHD2	6.4000e-005	8.5000e-005
tblVehicleEF	LHD2	4.2300e-004	0.03
tblVehicleEF	LHD2	0.02	8.3390e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.0400e-004	0.00
tblVehicleEF	LHD2	0.11	0.08
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	MCY	0.32	0.13
tblVehicleEF	MCY	0.25	0.14
tblVehicleEF	MCY	17.76	9.71
tblVehicleEF	MCY	9.39	7.58
tblVehicleEF	MCY	212.58	185.26
tblVehicleEF	MCY	58.78	39.68
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	5.5840e-003
tblVehicleEF	MCY	1.14	0.47
tblVehicleEF	MCY	0.27	0.09
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.2180e-003	2.0690e-003
tblVehicleEF	MCY	3.0130e-003	3.6390e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0680e-003	1.9300e-003
tblVehicleEF	MCY	2.8140e-003	3.4020e-003
tblVehicleEF	MCY	0.61	2.69
tblVehicleEF	MCY	0.49	3.54

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tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.13	0.79
tblVehicleEF	MCY	0.39	3.67
tblVehicleEF	MCY	1.89	1.03
tblVehicleEF	MCY	2.1040e-003	1.8310e-003
tblVehicleEF	MCY	5.8200e-004	3.9200e-004
tblVehicleEF	MCY	0.61	0.07
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.68	0.98
tblVehicleEF	MCY	0.39	3.67
tblVehicleEF	MCY	2.06	1.12
tblVehicleEF	MDV	1.2400e-003	1.4660e-003
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.45	0.52
tblVehicleEF	MDV	2.21	2.46
tblVehicleEF	MDV	289.25	352.66
tblVehicleEF	MDV	60.44	87.77
tblVehicleEF	MDV	4.5060e-003	4.1700e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.15	0.22
tblVehicleEF	MDV	0.04	7.7870e-003
tblVehicleEF	MDV	9.5700e-004	8.5800e-004
tblVehicleEF	MDV	1.2840e-003	1.4690e-003
tblVehicleEF	MDV	0.02	2.7250e-003
tblVehicleEF	MDV	8.8200e-004	7.9000e-004
tblVehicleEF	MDV	1.1810e-003	1.3510e-003
tblVehicleEF	MDV	0.03	0.17

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tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	4.5430e-003	5.3030e-003
tblVehicleEF	MDV	0.05	0.13
tblVehicleEF	MDV	0.16	0.24
tblVehicleEF	MDV	2.8580e-003	3.4850e-003
tblVehicleEF	MDV	5.9800e-004	8.6800e-004
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	6.5690e-003	7.7170e-003
tblVehicleEF	MDV	0.05	0.13
tblVehicleEF	MDV	0.18	0.26
tblVehicleEF	MH	4.0670e-003	4.8170e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	1.59	1.85
tblVehicleEF	MH	1,315.39	1,657.15
tblVehicleEF	MH	15.06	19.91
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.84	1.00
tblVehicleEF	MH	0.22	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1290e-003	0.01
tblVehicleEF	MH	2.2300e-004	2.4800e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2890e-003	3.3360e-003

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tblVehicleEF	MH	8.6970e-003	0.01
tblVehicleEF	MH	2.0500e-004	2.2800e-004
tblVehicleEF	MH	0.16	10.82
tblVehicleEF	MH	0.01	2.82
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	2.9870e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.4900e-004	1.9700e-004
tblVehicleEF	MH	0.16	10.82
tblVehicleEF	MH	0.01	2.82
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.04	0.05
tblVehicleEF	MH	2.9870e-003	0.07
tblVehicleEF	MH	0.08	0.09
tblVehicleEF	MHD	3.9010e-003	0.02
tblVehicleEF	MHD	9.3700e-004	9.6240e-003
tblVehicleEF	MHD	8.5280e-003	9.1350e-003
tblVehicleEF	MHD	0.38	0.63
tblVehicleEF	MHD	0.14	0.16
tblVehicleEF	MHD	0.87	0.98
tblVehicleEF	MHD	55.53	130.08
tblVehicleEF	MHD	958.82	1,103.52
tblVehicleEF	MHD	8.66	9.48
tblVehicleEF	MHD	7.8550e-003	0.02
tblVehicleEF	MHD	0.12	0.13
tblVehicleEF	MHD	8.0480e-003	6.8930e-003
tblVehicleEF	MHD	0.29	0.66

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tblVehicleEF	MHD	1.31	0.56
tblVehicleEF	MHD	1.67	1.12
tblVehicleEF	MHD	1.1600e-004	6.3600e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	6.3200e-003	5.3910e-003
tblVehicleEF	MHD	1.1300e-004	1.1800e-004
tblVehicleEF	MHD	1.1100e-004	6.0800e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.0400e-003	5.1470e-003
tblVehicleEF	MHD	1.0400e-004	1.0900e-004
tblVehicleEF	MHD	2.1500e-004	0.02
tblVehicleEF	MHD	0.01	3.9100e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.5500e-004	0.00
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	5.2700e-004	1.1950e-003
tblVehicleEF	MHD	9.1510e-003	0.01
tblVehicleEF	MHD	8.6000e-005	9.4000e-005
tblVehicleEF	MHD	2.1500e-004	0.02
tblVehicleEF	MHD	0.01	3.9100e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.5500e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	6.7860e-003	6.9140e-003
tblVehicleEF	OBUS	1.7360e-003	0.01

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tblVehicleEF	OBUS	0.01	8.2390e-003
tblVehicleEF	OBUS	0.67	0.50
tblVehicleEF	OBUS	0.22	0.16
tblVehicleEF	OBUS	1.34	0.83
tblVehicleEF	OBUS	104.99	88.87
tblVehicleEF	OBUS	1,195.47	1,192.98
tblVehicleEF	OBUS	11.93	7.62
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.12	0.16
tblVehicleEF	OBUS	0.01	7.5270e-003
tblVehicleEF	OBUS	0.47	0.34
tblVehicleEF	OBUS	1.49	0.65
tblVehicleEF	OBUS	1.22	1.02
tblVehicleEF	OBUS	1.5600e-004	2.0700e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	8.0770e-003	7.6200e-003
tblVehicleEF	OBUS	1.4600e-004	8.4000e-005
tblVehicleEF	OBUS	1.4900e-004	1.9800e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.7140e-003	7.2850e-003
tblVehicleEF	OBUS	1.3400e-004	7.7000e-005
tblVehicleEF	OBUS	6.9700e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	3.8500e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	9.9600e-004	8.3400e-004

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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.1800e-004	7.5000e-005
tblVehicleEF	OBUS	6.9700e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.8500e-004	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	SBUS	0.16	0.11
tblVehicleEF	SBUS	5.7190e-003	0.07
tblVehicleEF	SBUS	0.01	8.9860e-003
tblVehicleEF	SBUS	5.81	2.80
tblVehicleEF	SBUS	0.52	0.91
tblVehicleEF	SBUS	2.02	1.22
tblVehicleEF	SBUS	372.76	200.53
tblVehicleEF	SBUS	883.04	857.53
tblVehicleEF	SBUS	11.09	6.59
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.08	0.09
tblVehicleEF	SBUS	0.01	6.2860e-003
tblVehicleEF	SBUS	2.28	1.04
tblVehicleEF	SBUS	2.37	1.45
tblVehicleEF	SBUS	0.99	0.50
tblVehicleEF	SBUS	1.7990e-003	7.5800e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	9.6950e-003	9.8790e-003
tblVehicleEF	SBUS	0.01	7.0920e-003
tblVehicleEF	SBUS	1.8900e-004	9.4000e-005

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tblVehicleEF	SBUS	1.7210e-003	7.2300e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.4240e-003	2.4700e-003
tblVehicleEF	SBUS	0.01	6.7620e-003
tblVehicleEF	SBUS	1.7400e-004	8.6000e-005
tblVehicleEF	SBUS	1.0240e-003	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.71	0.33
tblVehicleEF	SBUS	5.6900e-004	0.00
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	3.5870e-003	1.8280e-003
tblVehicleEF	SBUS	8.5360e-003	8.0270e-003
tblVehicleEF	SBUS	1.1000e-004	6.5000e-005
tblVehicleEF	SBUS	1.0240e-003	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.03	0.51
tblVehicleEF	SBUS	5.6900e-004	0.00
tblVehicleEF	SBUS	0.07	0.13
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.09	0.06
tblVehicleEF	UBUS	1.75	0.64
tblVehicleEF	UBUS	8.0630e-003	4.5120e-003
tblVehicleEF	UBUS	13.25	7.38
tblVehicleEF	UBUS	0.82	0.83
tblVehicleEF	UBUS	1,616.16	954.90
tblVehicleEF	UBUS	7.49	5.22
tblVehicleEF	UBUS	0.27	0.14

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tblVehicleEF	UBUS	5.7250e-003	6.8380e-003
tblVehicleEF	UBUS	0.67	0.21
tblVehicleEF	UBUS	0.07	0.04
tblVehicleEF	UBUS	0.08	0.16
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	4.9300e-003	3.9500e-003
tblVehicleEF	UBUS	9.1000e-005	2.5000e-005
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	7.8010e-003	0.02
tblVehicleEF	UBUS	4.7140e-003	3.7730e-003
tblVehicleEF	UBUS	8.3000e-005	2.3000e-005
tblVehicleEF	UBUS	1.3500e-004	0.01
tblVehicleEF	UBUS	1.6730e-003	3.4250e-003
tblVehicleEF	UBUS	8.4000e-005	0.00
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	5.1800e-004	0.01
tblVehicleEF	UBUS	0.04	0.02
tblVehicleEF	UBUS	0.01	7.2300e-003
tblVehicleEF	UBUS	7.4000e-005	5.2000e-005
tblVehicleEF	UBUS	1.3500e-004	0.01
tblVehicleEF	UBUS	1.6730e-003	3.4250e-003
tblVehicleEF	UBUS	8.4000e-005	0.00
tblVehicleEF	UBUS	1.79	0.69
tblVehicleEF	UBUS	5.1800e-004	0.01
tblVehicleEF	UBUS	0.04	0.02
tblVehicleTrips	ST_TR	4.91	6.61
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	6.22	0.00
tblVehicleTrips	ST_TR	46.12	39.27

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tblVehicleTrips	SU_TR	4.09	5.50
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	5.84	0.00
tblVehicleTrips	SU_TR	21.10	17.97
tblVehicleTrips	WD_TR	5.44	7.32
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	47.62	0.00
tblVehicleTrips	WD_TR	37.75	32.14
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	22.26	0.00
tblWoodstoves	NumberNoncatalytic	22.26	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00

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tblWoodstoves	WoodstoveWoodMass	582.40	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	6.4630	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Energy	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Mobile	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208
Stationary	0.1649	0.7375	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243	0.0000	76.5402	76.5402	0.0107	0.0000	76.8085
Waste						0.0000	0.0000		0.0000	0.0000	107.6766	0.0000	107.6766	6.3635	0.0000	266.7641
Water						0.0000	0.0000		0.0000	0.0000	26.0658	0.0000	26.0658	0.0897	0.0567	45.2007
Total	**9.9963**	**2.7860**	**31.4505**	**0.0644**	**6.2578**	**0.1015**	**6.3593**	**1.5599**	**0.0994**	**1.6593**	**133.7424**	**5,914.0593**	**6,047.8017**	**6.7283**	**0.2804**	**6,299.5552**

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

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Category	tons/yr										MT/yr					
Area	6.4630	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Energy	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Mobile	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208
Stationary	0.1649	0.7375	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243	0.0000	76.5402	76.5402	0.0107	0.0000	76.8085
Waste						0.0000	0.0000		0.0000	0.0000	107.6766	0.0000	107.6766	6.3635	0.0000	266.7641
Water						0.0000	0.0000		0.0000	0.0000	26.0658	0.0000	26.0658	0.0897	0.0567	45.2007
Total	**9.9963**	**2.7860**	**31.4505**	**0.0644**	**6.2578**	**0.1015**	**6.3593**	**1.5599**	**0.0994**	**1.6593**	**133.7424**	**5,914.0593**	**6,047.8017**	**6.7283**	**0.2804**	**6,299.5552**

	ROG	NOx	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	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208

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Unmitigated	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	8,147.16	7,356.93	6121.50	17,887,654	17,887,654
City Park	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	449.96	549.78	251.58	764,231	764,231
Total	8,597.12	7,906.71	6,373.08	18,651,885	18,651,885

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
City Park	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Day-Care Center	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Enclosed Parking with Elevator	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Parking Lot	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Regional Shopping Center	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146

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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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
NaturalGas Unmitigated	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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

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City Park	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
Day-Care Center	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	63840	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Total		**3.4000e-004**	**3.1300e-003**	**2.6300e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4068**	**3.4068**	**7.0000e-005**	**6.0000e-005**	**3.4270**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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
City Park	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
Day-Care Center	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	63840	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Total		**3.4000e-004**	**3.1300e-003**	**2.6300e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4068**	**3.4068**	**7.0000e-005**	**6.0000e-005**	**3.4270**

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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			
Apartments Mid Rise	4.32829e+006	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	12236	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.1552e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	13020	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	143360	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	4.32829e+006	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000

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Day-Care Center	12236	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.1552e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	13020	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	143360	0.0000	0.0000	0.0000	0.0000
Total		**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	tons/yr										MT/yr					
Mitigated	6.4630	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Unmitigated	6.4630	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340

6.2 Area by SubCategory

Unmitigated

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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	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2645					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2471	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Total	**6.4630**	**0.0951**	**8.2486**	**4.4000e-004**		**0.0459**	**0.0459**		**0.0459**	**0.0459**	**0.0000**	**13.5117**	**13.5117**	**0.0129**	**0.0000**	**13.8340**

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	0.9514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2645					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2471	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Total	**6.4630**	**0.0951**	**8.2486**	**4.4000e-004**		**0.0459**	**0.0459**		**0.0459**	**0.0459**	**0.0000**	**13.5117**	**13.5117**	**0.0129**	**0.0000**	**13.8340**

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

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.0658	0.0897	0.0567	45.2007
Unmitigated	26.0658	0.0897	0.0567	45.2007

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	72.5164 / 45.7169	25.6564	0.0883	0.0558	44.4908
City Park	0 / 1.78722	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0.120091 / 0.308805	0.0425	1.5000e-004	9.0000e-005	0.0737
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

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Regional Shopping Center	1.03702 / 0.63559	0.3669	1.2600e-003	8.0000e-004	0.6362
Total		**26.0658**	**0.0897**	**0.0567**	**45.2007**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	72.5164 / 45.7169	25.6564	0.0883	0.0558	44.4908
City Park	0 / 1.78722	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0.120091 / 0.308805	0.0425	1.5000e-004	9.0000e-005	0.0737
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.03702 / 0.63559	0.3669	1.2600e-003	8.0000e-004	0.6362
Total		**26.0658**	**0.0897**	**0.0567**	**45.2007**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	107.6766	6.3635	0.0000	266.7641
Unmitigated	107.6766	6.3635	0.0000	266.7641

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	511.98	103.9273	6.1419	0.0000	257.4755
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
Day-Care Center	3.64	0.7389	0.0437	0.0000	1.8306
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	14.7	2.9840	0.1764	0.0000	7.3927
Total		**107.6766**	**6.3635**	**0.0000**	**266.7641**

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

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	511.98	103.9273	6.1419	0.0000	257.4755
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
Day-Care Center	3.64	0.7389	0.0437	0.0000	1.8306
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	14.7	2.9840	0.1764	0.0000	7.3927
Total		**107.6766**	**6.3635**	**0.0000**	**266.7641**

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
Emergency Generator	4	0	50	1005	0.73	Diesel

Boilers

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel	0.1649	0.7375	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243	0.0000	76.5402	76.5402	0.0107	0.0000	76.8085
Total	**0.1649**	**0.7375**	**0.4205**	**7.9000e-004**		**0.0243**	**0.0243**		**0.0243**	**0.0243**	**0.0000**	**76.5402**	**76.5402**	**0.0107**	**0.0000**	**76.8085**

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	2.80	1000sqft	0.00	2,800.00	0
Enclosed Parking with Elevator	580.00	1000sqft	0.00	580,000.00	0
Parking Lot	93.00	Space	0.00	37,200.00	0
City Park	1.50	Acre	0.00	65,340.00	0
Apartments Mid Rise	1,113.00	Dwelling Unit	31.00	1,320,800.00	3183
Regional Shopping Center	14.00	1000sqft	0.00	14,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2030
Utility Company	Peninsula Clean Energy				
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 - Provided land uses - Project description, traffic, and construction worksheets

Construction Phase - Operational Model Only

Off-road Equipment - Operational Model Only

Grading -

Vehicle Trips - Provided traffic trip gen rates with reductions.

Vehicle Emission Factors - EMFAC2021 Vehicle Emissions Factors San Mateo County 2030

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Woodstoves - No hearths/fireplaces

Energy Use - Daly City reach code bans natural gas in residential/daycare, remains for retail (potential commerical kitchens). Natural gas intensity added into electricity energy intensity

Water And Wastewater - Wastewater treatment 100% aerobic, no septic tanks of lagoons.

Fleet Mix - EMFAC2021 Fleet Mix San Mateo County 2030

Stationary Sources - Emergency Generators and Fire Pumps - Four (4), 750-kW, 1,005-HP diesel powered generators (Parcels B, D, E, F), 50 hrs/year

Stationary Sources - Emergency Generators and Fire Pumps EF -

Area Coating - At least 50% of paints have to be super-compliant VOC = effectively 50g/L interior and 75g/L exterior

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	75
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Exterior	150	75
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	LightingElect	741.44	742.21
tblEnergyUse	NT24E	3,054.10	3,055.81
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	T24NG	5,828.01	0.00
tblEnergyUse	T24NG	14.70	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	166.95	0.00
tblFireplaces	NumberNoFireplace	44.52	0.00
tblFireplaces	NumberWood	189.21	0.00
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003

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tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003

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

tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003

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tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblLandUse	LandUseSquareFeet	1,113,000.00	1,320,800.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	13.31	0.00
tblLandUse	LotAcreage	0.84	0.00
tblLandUse	LotAcreage	1.50	0.00
tblLandUse	LotAcreage	29.29	31.00
tblLandUse	LotAcreage	0.32	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,005.00

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tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblVehicleEF	HHD	0.04	0.23
tblVehicleEF	HHD	0.19	0.18
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.46	4.57
tblVehicleEF	HHD	1.06	1.44
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	860.08	692.39
tblVehicleEF	HHD	1,405.74	1,514.61
tblVehicleEF	HHD	0.35	0.20
tblVehicleEF	HHD	0.14	0.11
tblVehicleEF	HHD	0.23	0.24
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.01	3.57
tblVehicleEF	HHD	2.73	1.87
tblVehicleEF	HHD	2.40	2.65
tblVehicleEF	HHD	2.7380e-003	2.0820e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	2.6200e-003	1.9850e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7570e-003	8.6350e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	6.0000e-006	2.3600e-004
tblVehicleEF	HHD	3.2200e-004	6.5000e-005

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tblVehicleEF	HHD	0.36	0.27
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	1.5200e-004	3.9100e-004
tblVehicleEF	HHD	1.4000e-005	2.0000e-006
tblVehicleEF	HHD	7.5950e-003	5.6170e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	6.0000e-006	2.3600e-004
tblVehicleEF	HHD	3.2200e-004	6.5000e-005
tblVehicleEF	HHD	0.43	0.53
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.23	0.21
tblVehicleEF	HHD	1.5200e-004	3.9100e-004
tblVehicleEF	HHD	1.6000e-005	2.0000e-006
tblVehicleEF	LDA	8.5200e-004	1.0910e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.38	0.43
tblVehicleEF	LDA	1.70	2.12
tblVehicleEF	LDA	197.85	218.14
tblVehicleEF	LDA	41.93	56.38
tblVehicleEF	LDA	2.9620e-003	2.8890e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.12	0.18
tblVehicleEF	LDA	0.04	6.3460e-003
tblVehicleEF	LDA	8.6000e-004	8.0000e-004
tblVehicleEF	LDA	1.2290e-003	1.4710e-003
tblVehicleEF	LDA	0.02	2.2210e-003

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tblVehicleEF	LDA	7.9200e-004	7.3600e-004
tblVehicleEF	LDA	1.1300e-003	1.3530e-003
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.9250e-003	3.8520e-003
tblVehicleEF	LDA	0.03	0.16
tblVehicleEF	LDA	0.12	0.20
tblVehicleEF	LDA	1.9570e-003	2.1560e-003
tblVehicleEF	LDA	4.1500e-004	5.5700e-004
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	4.2480e-003	5.6170e-003
tblVehicleEF	LDA	0.03	0.16
tblVehicleEF	LDA	0.13	0.22
tblVehicleEF	LDT1	1.1990e-003	2.2150e-003
tblVehicleEF	LDT1	0.03	0.06
tblVehicleEF	LDT1	0.44	0.66
tblVehicleEF	LDT1	1.81	2.84
tblVehicleEF	LDT1	236.05	285.53
tblVehicleEF	LDT1	50.08	72.58
tblVehicleEF	LDT1	3.1790e-003	4.5000e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.03	0.05
tblVehicleEF	LDT1	0.14	0.23
tblVehicleEF	LDT1	0.04	7.9630e-003
tblVehicleEF	LDT1	9.9000e-004	1.0380e-003
tblVehicleEF	LDT1	1.3910e-003	1.7650e-003

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tblVehicleEF	LDT1	0.02	2.7870e-003
tblVehicleEF	LDT1	9.1100e-004	9.5500e-004
tblVehicleEF	LDT1	1.2790e-003	1.6230e-003
tblVehicleEF	LDT1	0.03	0.31
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.4220e-003	9.0470e-003
tblVehicleEF	LDT1	0.05	0.24
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.3360e-003	2.8230e-003
tblVehicleEF	LDT1	4.9600e-004	7.1700e-004
tblVehicleEF	LDT1	0.03	0.31
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	6.4520e-003	0.01
tblVehicleEF	LDT1	0.05	0.24
tblVehicleEF	LDT1	0.14	0.29
tblVehicleEF	LDT2	1.3110e-003	1.4510e-003
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.47	0.52
tblVehicleEF	LDT2	2.22	2.46
tblVehicleEF	LDT2	241.10	296.13
tblVehicleEF	LDT2	51.42	74.14
tblVehicleEF	LDT2	3.4280e-003	3.6740e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.15	0.21
tblVehicleEF	LDT2	0.04	7.7670e-003
tblVehicleEF	LDT2	9.8200e-004	8.8300e-004

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tblVehicleEF	LDT2	1.3140e-003	1.4990e-003
tblVehicleEF	LDT2	0.02	2.7180e-003
tblVehicleEF	LDT2	9.0400e-004	8.1200e-004
tblVehicleEF	LDT2	1.2080e-003	1.3780e-003
tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00
tblVehicleEF	LDT2	4.7820e-003	5.1450e-003
tblVehicleEF	LDT2	0.05	0.12
tblVehicleEF	LDT2	0.16	0.22
tblVehicleEF	LDT2	2.3850e-003	2.9270e-003
tblVehicleEF	LDT2	5.0900e-004	7.3300e-004
tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00
tblVehicleEF	LDT2	6.9400e-003	7.4940e-003
tblVehicleEF	LDT2	0.05	0.12
tblVehicleEF	LDT2	0.17	0.24
tblVehicleEF	LHD1	3.9860e-003	4.1000e-003
tblVehicleEF	LHD1	4.4850e-003	2.8900e-003
tblVehicleEF	LHD1	7.3910e-003	0.01
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.40	0.47
tblVehicleEF	LHD1	0.86	2.16
tblVehicleEF	LHD1	8.08	7.48
tblVehicleEF	LHD1	689.79	647.78
tblVehicleEF	LHD1	9.94	16.36
tblVehicleEF	LHD1	7.0800e-004	5.3200e-004
tblVehicleEF	LHD1	0.04	0.03

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tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.20	0.30
tblVehicleEF	LHD1	9.1600e-004	6.1700e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	9.8940e-003	9.2640e-003
tblVehicleEF	LHD1	5.8960e-003	6.6480e-003
tblVehicleEF	LHD1	2.0100e-004	1.0400e-004
tblVehicleEF	LHD1	8.7600e-004	5.9000e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4740e-003	2.3160e-003
tblVehicleEF	LHD1	5.5970e-003	6.3310e-003
tblVehicleEF	LHD1	1.8500e-004	9.6000e-005
tblVehicleEF	LHD1	8.5500e-004	0.06
tblVehicleEF	LHD1	0.04	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.9000e-004	0.00
tblVehicleEF	LHD1	0.07	0.04
tblVehicleEF	LHD1	0.14	0.08
tblVehicleEF	LHD1	0.03	0.07
tblVehicleEF	LHD1	7.8000e-005	7.3000e-005
tblVehicleEF	LHD1	6.7280e-003	6.3250e-003
tblVehicleEF	LHD1	9.8000e-005	1.6200e-004
tblVehicleEF	LHD1	8.5500e-004	0.06
tblVehicleEF	LHD1	0.04	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.9000e-004	0.00
tblVehicleEF	LHD1	0.08	0.04

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tblVehicleEF	LHD1	0.14	0.08
tblVehicleEF	LHD1	0.04	0.07
tblVehicleEF	LHD2	2.4420e-003	2.3110e-003
tblVehicleEF	LHD2	4.9160e-003	3.5820e-003
tblVehicleEF	LHD2	4.1310e-003	7.5520e-003
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.44	0.32
tblVehicleEF	LHD2	0.49	1.19
tblVehicleEF	LHD2	12.62	12.88
tblVehicleEF	LHD2	670.16	684.09
tblVehicleEF	LHD2	6.49	8.64
tblVehicleEF	LHD2	1.6020e-003	1.5980e-003
tblVehicleEF	LHD2	0.06	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.21	0.28
tblVehicleEF	LHD2	0.12	0.16
tblVehicleEF	LHD2	1.4740e-003	1.4290e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.0700e-004	5.0000e-005
tblVehicleEF	LHD2	1.4100e-003	1.3670e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7060e-003	2.6170e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9000e-005	4.6000e-005
tblVehicleEF	LHD2	4.2300e-004	0.03
tblVehicleEF	LHD2	0.02	8.3390e-003

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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0400e-004	0.00
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	1.2100e-004	1.2300e-004
tblVehicleEF	LHD2	6.4670e-003	6.5820e-003
tblVehicleEF	LHD2	6.4000e-005	8.5000e-005
tblVehicleEF	LHD2	4.2300e-004	0.03
tblVehicleEF	LHD2	0.02	8.3390e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.0400e-004	0.00
tblVehicleEF	LHD2	0.11	0.08
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	MCY	0.32	0.13
tblVehicleEF	MCY	0.25	0.14
tblVehicleEF	MCY	17.76	9.71
tblVehicleEF	MCY	9.39	7.58
tblVehicleEF	MCY	212.58	185.26
tblVehicleEF	MCY	58.78	39.68
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	5.5840e-003
tblVehicleEF	MCY	1.14	0.47
tblVehicleEF	MCY	0.27	0.09
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.2180e-003	2.0690e-003
tblVehicleEF	MCY	3.0130e-003	3.6390e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003

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tblVehicleEF	MCY	2.0680e-003	1.9300e-003
tblVehicleEF	MCY	2.8140e-003	3.4020e-003
tblVehicleEF	MCY	0.61	2.69
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.13	0.79
tblVehicleEF	MCY	0.39	3.67
tblVehicleEF	MCY	1.89	1.03
tblVehicleEF	MCY	2.1040e-003	1.8310e-003
tblVehicleEF	MCY	5.8200e-004	3.9200e-004
tblVehicleEF	MCY	0.61	0.07
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.68	0.98
tblVehicleEF	MCY	0.39	3.67
tblVehicleEF	MCY	2.06	1.12
tblVehicleEF	MDV	1.2400e-003	1.4660e-003
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.45	0.52
tblVehicleEF	MDV	2.21	2.46
tblVehicleEF	MDV	289.25	352.66
tblVehicleEF	MDV	60.44	87.77
tblVehicleEF	MDV	4.5060e-003	4.1700e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.15	0.22
tblVehicleEF	MDV	0.04	7.7870e-003
tblVehicleEF	MDV	9.5700e-004	8.5800e-004
tblVehicleEF	MDV	1.2840e-003	1.4690e-003

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tblVehicleEF	MDV	0.02	2.7250e-003
tblVehicleEF	MDV	8.8200e-004	7.9000e-004
tblVehicleEF	MDV	1.1810e-003	1.3510e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	4.5430e-003	5.3030e-003
tblVehicleEF	MDV	0.05	0.13
tblVehicleEF	MDV	0.16	0.24
tblVehicleEF	MDV	2.8580e-003	3.4850e-003
tblVehicleEF	MDV	5.9800e-004	8.6800e-004
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	6.5690e-003	7.7170e-003
tblVehicleEF	MDV	0.05	0.13
tblVehicleEF	MDV	0.18	0.26
tblVehicleEF	MH	4.0670e-003	4.8170e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	1.59	1.85
tblVehicleEF	MH	1,315.39	1,657.15
tblVehicleEF	MH	15.06	19.91
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.84	1.00
tblVehicleEF	MH	0.22	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01

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tblVehicleEF	MH	9.1290e-003	0.01
tblVehicleEF	MH	2.2300e-004	2.4800e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2890e-003	3.3360e-003
tblVehicleEF	MH	8.6970e-003	0.01
tblVehicleEF	MH	2.0500e-004	2.2800e-004
tblVehicleEF	MH	0.16	10.82
tblVehicleEF	MH	0.01	2.82
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	2.9870e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.4900e-004	1.9700e-004
tblVehicleEF	MH	0.16	10.82
tblVehicleEF	MH	0.01	2.82
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.04	0.05
tblVehicleEF	MH	2.9870e-003	0.07
tblVehicleEF	MH	0.08	0.09
tblVehicleEF	MHD	3.9010e-003	0.02
tblVehicleEF	MHD	9.3700e-004	9.6240e-003
tblVehicleEF	MHD	8.5280e-003	9.1350e-003
tblVehicleEF	MHD	0.38	0.63
tblVehicleEF	MHD	0.14	0.16
tblVehicleEF	MHD	0.87	0.98
tblVehicleEF	MHD	55.53	130.08
tblVehicleEF	MHD	958.82	1,103.52
tblVehicleEF	MHD	8.66	9.48

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tblVehicleEF	MHD	7.8550e-003	0.02
tblVehicleEF	MHD	0.12	0.13
tblVehicleEF	MHD	8.0480e-003	6.8930e-003
tblVehicleEF	MHD	0.29	0.66
tblVehicleEF	MHD	1.31	0.56
tblVehicleEF	MHD	1.67	1.12
tblVehicleEF	MHD	1.1600e-004	6.3600e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	6.3200e-003	5.3910e-003
tblVehicleEF	MHD	1.1300e-004	1.1800e-004
tblVehicleEF	MHD	1.1100e-004	6.0800e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.0400e-003	5.1470e-003
tblVehicleEF	MHD	1.0400e-004	1.0900e-004
tblVehicleEF	MHD	2.1500e-004	0.02
tblVehicleEF	MHD	0.01	3.9100e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.5500e-004	0.00
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	5.2700e-004	1.1950e-003
tblVehicleEF	MHD	9.1510e-003	0.01
tblVehicleEF	MHD	8.6000e-005	9.4000e-005
tblVehicleEF	MHD	2.1500e-004	0.02
tblVehicleEF	MHD	0.01	3.9100e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.5500e-004	0.00
tblVehicleEF	MHD	0.01	0.03

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tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	6.7860e-003	6.9140e-003
tblVehicleEF	OBUS	1.7360e-003	0.01
tblVehicleEF	OBUS	0.01	8.2390e-003
tblVehicleEF	OBUS	0.67	0.50
tblVehicleEF	OBUS	0.22	0.16
tblVehicleEF	OBUS	1.34	0.83
tblVehicleEF	OBUS	104.99	88.87
tblVehicleEF	OBUS	1,195.47	1,192.98
tblVehicleEF	OBUS	11.93	7.62
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.12	0.16
tblVehicleEF	OBUS	0.01	7.5270e-003
tblVehicleEF	OBUS	0.47	0.34
tblVehicleEF	OBUS	1.49	0.65
tblVehicleEF	OBUS	1.22	1.02
tblVehicleEF	OBUS	1.5600e-004	2.0700e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	8.0770e-003	7.6200e-003
tblVehicleEF	OBUS	1.4600e-004	8.4000e-005
tblVehicleEF	OBUS	1.4900e-004	1.9800e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.7140e-003	7.2850e-003
tblVehicleEF	OBUS	1.3400e-004	7.7000e-005
tblVehicleEF	OBUS	6.9700e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	3.8500e-004	0.00

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tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	9.9600e-004	8.3400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.1800e-004	7.5000e-005
tblVehicleEF	OBUS	6.9700e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.8500e-004	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	SBUS	0.16	0.11
tblVehicleEF	SBUS	5.7190e-003	0.07
tblVehicleEF	SBUS	0.01	8.9860e-003
tblVehicleEF	SBUS	5.81	2.80
tblVehicleEF	SBUS	0.52	0.91
tblVehicleEF	SBUS	2.02	1.22
tblVehicleEF	SBUS	372.76	200.53
tblVehicleEF	SBUS	883.04	857.53
tblVehicleEF	SBUS	11.09	6.59
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.08	0.09
tblVehicleEF	SBUS	0.01	6.2860e-003
tblVehicleEF	SBUS	2.28	1.04
tblVehicleEF	SBUS	2.37	1.45
tblVehicleEF	SBUS	0.99	0.50
tblVehicleEF	SBUS	1.7990e-003	7.5800e-004

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tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	9.6950e-003	9.8790e-003
tblVehicleEF	SBUS	0.01	7.0920e-003
tblVehicleEF	SBUS	1.8900e-004	9.4000e-005
tblVehicleEF	SBUS	1.7210e-003	7.2300e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.4240e-003	2.4700e-003
tblVehicleEF	SBUS	0.01	6.7620e-003
tblVehicleEF	SBUS	1.7400e-004	8.6000e-005
tblVehicleEF	SBUS	1.0240e-003	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.71	0.33
tblVehicleEF	SBUS	5.6900e-004	0.00
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	3.5870e-003	1.8280e-003
tblVehicleEF	SBUS	8.5360e-003	8.0270e-003
tblVehicleEF	SBUS	1.1000e-004	6.5000e-005
tblVehicleEF	SBUS	1.0240e-003	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.03	0.51
tblVehicleEF	SBUS	5.6900e-004	0.00
tblVehicleEF	SBUS	0.07	0.13
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.09	0.06
tblVehicleEF	UBUS	1.75	0.64
tblVehicleEF	UBUS	8.0630e-003	4.5120e-003
tblVehicleEF	UBUS	13.25	7.38

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tblVehicleEF	UBUS	0.82	0.83
tblVehicleEF	UBUS	1,616.16	954.90
tblVehicleEF	UBUS	7.49	5.22
tblVehicleEF	UBUS	0.27	0.14
tblVehicleEF	UBUS	5.7250e-003	6.8380e-003
tblVehicleEF	UBUS	0.67	0.21
tblVehicleEF	UBUS	0.07	0.04
tblVehicleEF	UBUS	0.08	0.16
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	4.9300e-003	3.9500e-003
tblVehicleEF	UBUS	9.1000e-005	2.5000e-005
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	7.8010e-003	0.02
tblVehicleEF	UBUS	4.7140e-003	3.7730e-003
tblVehicleEF	UBUS	8.3000e-005	2.3000e-005
tblVehicleEF	UBUS	1.3500e-004	0.01
tblVehicleEF	UBUS	1.6730e-003	3.4250e-003
tblVehicleEF	UBUS	8.4000e-005	0.00
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	5.1800e-004	0.01
tblVehicleEF	UBUS	0.04	0.02
tblVehicleEF	UBUS	0.01	7.2300e-003
tblVehicleEF	UBUS	7.4000e-005	5.2000e-005
tblVehicleEF	UBUS	1.3500e-004	0.01
tblVehicleEF	UBUS	1.6730e-003	3.4250e-003
tblVehicleEF	UBUS	8.4000e-005	0.00
tblVehicleEF	UBUS	1.79	0.69
tblVehicleEF	UBUS	5.1800e-004	0.01
tblVehicleEF	UBUS	0.04	0.02

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tblVehicleTrips	ST_TR	4.91	6.61
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	6.22	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	5.50
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	5.84	0.00
tblVehicleTrips	SU_TR	21.10	17.97
tblVehicleTrips	WD_TR	5.44	7.32
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	47.62	0.00
tblVehicleTrips	WD_TR	37.75	32.14
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	22.26	0.00
tblWoodstoves	NumberNoncatalytic	22.26	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	5.9938	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Energy	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Mobile	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208
Stationary	0.1649	0.7375	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243	0.0000	76.5402	76.5402	0.0107	0.0000	76.8085
Waste						0.0000	0.0000		0.0000	0.0000	107.6766	0.0000	107.6766	6.3635	0.0000	266.7641
Water						0.0000	0.0000		0.0000	0.0000	26.0658	0.0000	26.0658	0.0897	0.0567	45.2007
Total	**9.5271**	**2.7860**	**31.4505**	**0.0644**	**6.2578**	**0.1015**	**6.3593**	**1.5599**	**0.0994**	**1.6593**	**133.7424**	**5,914.0593**	**6,047.8017**	**6.7283**	**0.2804**	**6,299.5552**

Mitigated Operational

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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	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.9938	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Energy	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Mobile	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208
Stationary	0.1649	0.7375	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243	0.0000	76.5402	76.5402	0.0107	0.0000	76.8085
Waste						0.0000	0.0000		0.0000	0.0000	107.6766	0.0000	107.6766	6.3635	0.0000	266.7641
Water						0.0000	0.0000		0.0000	0.0000	26.0658	0.0000	26.0658	0.0897	0.0567	45.2007
Total	**9.5271**	**2.7860**	**31.4505**	**0.0644**	**6.2578**	**0.1015**	**6.3593**	**1.5599**	**0.0994**	**1.6593**	**133.7424**	**5,914.0593**	**6,047.8017**	**6.7283**	**0.2804**	**6,299.5552**

	ROG	NOx	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

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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	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208
Unmitigated	3.3681	1.9503	22.7787	0.0631	6.2578	0.0312	6.2889	1.5599	0.0290	1.5889	0.0000	5,820.6006	5,820.6006	0.2514	0.2236	5,893.5208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	8,147.16	7,356.93	6121.50	17,887,654	17,887,654
City Park	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	449.96	549.78	251.58	764,231	764,231
Total	8,597.12	7,906.71	6,373.08	18,651,885	18,651,885

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
City Park	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146

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Day-Care Center	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Enclosed Parking with Elevator	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Parking Lot	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Regional Shopping Center	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
NaturalGas Unmitigated	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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
City Park	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
Day-Care Center	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	63840	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Total		**3.4000e-004**	**3.1300e-003**	**2.6300e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4068**	**3.4068**	**7.0000e-005**	**6.0000e-005**	**3.4270**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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
City Park	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
Day-Care Center	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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

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Regional Shopping Center	63840	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4068	3.4068	7.0000e-005	6.0000e-005	3.4270
Total		**3.4000e-004**	**3.1300e-003**	**2.6300e-003**	**2.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**3.4068**	**3.4068**	**7.0000e-005**	**6.0000e-005**	**3.4270**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	4.32829e+006	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	12236	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.1552e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	13020	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	143360	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	4.32829e+006	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	12236	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.1552e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	13020	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	143360	0.0000	0.0000	0.0000	0.0000
Total		**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	tons/yr										MT/yr					
Mitigated	5.9938	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Unmitigated	5.9938	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340

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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	0.4821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2645					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2471	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Total	**5.9938**	**0.0951**	**8.2486**	**4.4000e-004**		**0.0459**	**0.0459**		**0.0459**	**0.0459**	**0.0000**	**13.5117**	**13.5117**	**0.0129**	**0.0000**	**13.8340**

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	0.4821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2645					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2471	0.0951	8.2486	4.4000e-004		0.0459	0.0459		0.0459	0.0459	0.0000	13.5117	13.5117	0.0129	0.0000	13.8340
Total	**5.9938**	**0.0951**	**8.2486**	**4.4000e-004**		**0.0459**	**0.0459**		**0.0459**	**0.0459**	**0.0000**	**13.5117**	**13.5117**	**0.0129**	**0.0000**	**13.8340**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.0658	0.0897	0.0567	45.2007
Unmitigated	26.0658	0.0897	0.0567	45.2007

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

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Apartments Mid Rise	72.5164 / 45.7169	25.6564	0.0883	0.0558	44.4908
City Park	0 / 1.78722	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0.120091 / 0.308805	0.0425	1.5000e-004	9.0000e-005	0.0737
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.03702 / 0.63559	0.3669	1.2600e-003	8.0000e-004	0.6362
Total		**26.0658**	**0.0897**	**0.0567**	**45.2007**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	72.5164 / 45.7169	25.6564	0.0883	0.0558	44.4908
City Park	0 / 1.78722	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0.120091 / 0.308805	0.0425	1.5000e-004	9.0000e-005	0.0737
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.03702 / 0.63559	0.3669	1.2600e-003	8.0000e-004	0.6362
Total		**26.0658**	**0.0897**	**0.0567**	**45.2007**

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8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	107.6766	6.3635	0.0000	266.7641
Unmitigated	107.6766	6.3635	0.0000	266.7641

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	511.98	103.9273	6.1419	0.0000	257.4755
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
Day-Care Center	3.64	0.7389	0.0437	0.0000	1.8306

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Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	14.7	2.9840	0.1764	0.0000	7.3927
Total		**107.6766**	**6.3635**	**0.0000**	**266.7641**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	511.98	103.9273	6.1419	0.0000	257.4755
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
Day-Care Center	3.64	0.7389	0.0437	0.0000	1.8306
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	14.7	2.9840	0.1764	0.0000	7.3927
Total		**107.6766**	**6.3635**	**0.0000**	**266.7641**

9.0 Operational Offroad

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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
Emergency Generator	4	0	50	1005	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.1649	0.7375	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243	0.0000	76.5402	76.5402	0.0107	0.0000	76.8085
Total	**0.1649**	**0.7375**	**0.4205**	**7.9000e-004**		**0.0243**	**0.0243**		**0.0243**	**0.0243**	**0.0000**	**76.5402**	**76.5402**	**0.0107**	**0.0000**	**76.8085**

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	122.00	Dwelling Unit	3.90	122,000.00	349
Parking Lot	49.00	Space	0.00	19,600.00	0
Unenclosed Parking Structure	72.00	Space	0.00	28,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2030
Utility Company	Peninsula Clean Energy				
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 - Proposed Faculty Housing land uses

Construction Phase - Construction analysis previously conducted and project already under construction, Operational analysis only under Precise Plan

Off-road Equipment - Construction analysis previously conducted and project already under construction, Operational analysis only under Precise Plan

Grading -

Vehicle Trips - Provided traffic trip gen rates with reductions.

Vehicle Emission Factors - EMFAC2021 Vehicle Emissions Factors San Mateo County 2030

Fleet Mix - EMFAC2021 Fleet Mix San Mateo County 2030

Woodstoves - No hearths/fireplaces

Energy Use - Daly City reach code bans natural gas in residential uses. Natural gas intensity added into electricity energy intensity.

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Water And Wastewater - Wastewater treatment 100% aerobic, no septic tanks of lagoons.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	8/4/2023	7/31/2023
tblEnergyUse	NT24E	3,054.10	3,054.87
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	T24E	90.83	92.54
tblEnergyUse	T24NG	5,828.01	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	18.30	0.00
tblFireplaces	NumberNoFireplace	4.88	0.00
tblFireplaces	NumberWood	20.74	0.00
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	HHD	1.7910e-003	2.3620e-003
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDA	0.43	0.39
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT1	0.08	0.04
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03

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tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	LHD2	7.1360e-003	7.4140e-003
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MH	2.9170e-003	2.1460e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	MHD	0.01	8.2620e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	OBUS	1.3500e-003	2.2040e-003
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	SBUS	4.2100e-004	3.9400e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblFleetMix	UBUS	4.9600e-004	6.4500e-004
tblLandUse	LotAcreage	3.21	3.90
tblLandUse	LotAcreage	0.44	0.00
tblLandUse	LotAcreage	0.65	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblVehicleEF	HHD	0.04	0.23
tblVehicleEF	HHD	0.19	0.18
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.46	4.57
tblVehicleEF	HHD	1.06	1.44
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	860.08	692.39
tblVehicleEF	HHD	1,405.74	1,514.61
tblVehicleEF	HHD	0.35	0.20
tblVehicleEF	HHD	0.14	0.11
tblVehicleEF	HHD	0.23	0.24
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.01	3.57
tblVehicleEF	HHD	2.73	1.87
tblVehicleEF	HHD	2.40	2.65
tblVehicleEF	HHD	2.7380e-003	2.0820e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	2.6200e-003	1.9850e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7570e-003	8.6350e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	6.0000e-006	2.3600e-004

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tblVehicleEF	HHD	3.2200e-004	6.5000e-005
tblVehicleEF	HHD	0.36	0.27
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	1.5200e-004	3.9100e-004
tblVehicleEF	HHD	1.4000e-005	2.0000e-006
tblVehicleEF	HHD	7.5950e-003	5.6170e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.0000e-006	2.0000e-006
tblVehicleEF	HHD	6.0000e-006	2.3600e-004
tblVehicleEF	HHD	3.2200e-004	6.5000e-005
tblVehicleEF	HHD	0.43	0.53
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.23	0.21
tblVehicleEF	HHD	1.5200e-004	3.9100e-004
tblVehicleEF	HHD	1.6000e-005	2.0000e-006
tblVehicleEF	LDA	8.5200e-004	1.0910e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.38	0.43
tblVehicleEF	LDA	1.70	2.12
tblVehicleEF	LDA	197.85	218.14
tblVehicleEF	LDA	41.93	56.38
tblVehicleEF	LDA	2.9620e-003	2.8890e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.12	0.18
tblVehicleEF	LDA	0.04	6.3460e-003
tblVehicleEF	LDA	8.6000e-004	8.0000e-004
tblVehicleEF	LDA	1.2290e-003	1.4710e-003

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tblVehicleEF	LDA	0.02	2.2210e-003
tblVehicleEF	LDA	7.9200e-004	7.3600e-004
tblVehicleEF	LDA	1.1300e-003	1.3530e-003
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.9250e-003	3.8520e-003
tblVehicleEF	LDA	0.03	0.16
tblVehicleEF	LDA	0.12	0.20
tblVehicleEF	LDA	1.9570e-003	2.1560e-003
tblVehicleEF	LDA	4.1500e-004	5.5700e-004
tblVehicleEF	LDA	0.02	0.21
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	4.2480e-003	5.6170e-003
tblVehicleEF	LDA	0.03	0.16
tblVehicleEF	LDA	0.13	0.22
tblVehicleEF	LDT1	1.1990e-003	2.2150e-003
tblVehicleEF	LDT1	0.03	0.06
tblVehicleEF	LDT1	0.44	0.66
tblVehicleEF	LDT1	1.81	2.84
tblVehicleEF	LDT1	236.05	285.53
tblVehicleEF	LDT1	50.08	72.58
tblVehicleEF	LDT1	3.1790e-003	4.5000e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.03	0.05
tblVehicleEF	LDT1	0.14	0.23
tblVehicleEF	LDT1	0.04	7.9630e-003
tblVehicleEF	LDT1	9.9000e-004	1.0380e-003

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tblVehicleEF	LDT1	1.3910e-003	1.7650e-003
tblVehicleEF	LDT1	0.02	2.7870e-003
tblVehicleEF	LDT1	9.1100e-004	9.5500e-004
tblVehicleEF	LDT1	1.2790e-003	1.6230e-003
tblVehicleEF	LDT1	0.03	0.31
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.4220e-003	9.0470e-003
tblVehicleEF	LDT1	0.05	0.24
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.3360e-003	2.8230e-003
tblVehicleEF	LDT1	4.9600e-004	7.1700e-004
tblVehicleEF	LDT1	0.03	0.31
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	6.4520e-003	0.01
tblVehicleEF	LDT1	0.05	0.24
tblVehicleEF	LDT1	0.14	0.29
tblVehicleEF	LDT2	1.3110e-003	1.4510e-003
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.47	0.52
tblVehicleEF	LDT2	2.22	2.46
tblVehicleEF	LDT2	241.10	296.13
tblVehicleEF	LDT2	51.42	74.14
tblVehicleEF	LDT2	3.4280e-003	3.6740e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.15	0.21
tblVehicleEF	LDT2	0.04	7.7670e-003

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tblVehicleEF	LDT2	9.8200e-004	8.8300e-004
tblVehicleEF	LDT2	1.3140e-003	1.4990e-003
tblVehicleEF	LDT2	0.02	2.7180e-003
tblVehicleEF	LDT2	9.0400e-004	8.1200e-004
tblVehicleEF	LDT2	1.2080e-003	1.3780e-003
tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00
tblVehicleEF	LDT2	4.7820e-003	5.1450e-003
tblVehicleEF	LDT2	0.05	0.12
tblVehicleEF	LDT2	0.16	0.22
tblVehicleEF	LDT2	2.3850e-003	2.9270e-003
tblVehicleEF	LDT2	5.0900e-004	7.3300e-004
tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00
tblVehicleEF	LDT2	6.9400e-003	7.4940e-003
tblVehicleEF	LDT2	0.05	0.12
tblVehicleEF	LDT2	0.17	0.24
tblVehicleEF	LHD1	3.9860e-003	4.1000e-003
tblVehicleEF	LHD1	4.4850e-003	2.8900e-003
tblVehicleEF	LHD1	7.3910e-003	0.01
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.40	0.47
tblVehicleEF	LHD1	0.86	2.16
tblVehicleEF	LHD1	8.08	7.48
tblVehicleEF	LHD1	689.79	647.78
tblVehicleEF	LHD1	9.94	16.36
tblVehicleEF	LHD1	7.0800e-004	5.3200e-004

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tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.20	0.30
tblVehicleEF	LHD1	9.1600e-004	6.1700e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	9.8940e-003	9.2640e-003
tblVehicleEF	LHD1	5.8960e-003	6.6480e-003
tblVehicleEF	LHD1	2.0100e-004	1.0400e-004
tblVehicleEF	LHD1	8.7600e-004	5.9000e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4740e-003	2.3160e-003
tblVehicleEF	LHD1	5.5970e-003	6.3310e-003
tblVehicleEF	LHD1	1.8500e-004	9.6000e-005
tblVehicleEF	LHD1	8.5500e-004	0.06
tblVehicleEF	LHD1	0.04	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.9000e-004	0.00
tblVehicleEF	LHD1	0.07	0.04
tblVehicleEF	LHD1	0.14	0.08
tblVehicleEF	LHD1	0.03	0.07
tblVehicleEF	LHD1	7.8000e-005	7.3000e-005
tblVehicleEF	LHD1	6.7280e-003	6.3250e-003
tblVehicleEF	LHD1	9.8000e-005	1.6200e-004
tblVehicleEF	LHD1	8.5500e-004	0.06
tblVehicleEF	LHD1	0.04	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.9000e-004	0.00

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tblVehicleEF	LHD1	0.08	0.04
tblVehicleEF	LHD1	0.14	0.08
tblVehicleEF	LHD1	0.04	0.07
tblVehicleEF	LHD2	2.4420e-003	2.3110e-003
tblVehicleEF	LHD2	4.9160e-003	3.5820e-003
tblVehicleEF	LHD2	4.1310e-003	7.5520e-003
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.44	0.32
tblVehicleEF	LHD2	0.49	1.19
tblVehicleEF	LHD2	12.62	12.88
tblVehicleEF	LHD2	670.16	684.09
tblVehicleEF	LHD2	6.49	8.64
tblVehicleEF	LHD2	1.6020e-003	1.5980e-003
tblVehicleEF	LHD2	0.06	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.21	0.28
tblVehicleEF	LHD2	0.12	0.16
tblVehicleEF	LHD2	1.4740e-003	1.4290e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.0700e-004	5.0000e-005
tblVehicleEF	LHD2	1.4100e-003	1.3670e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7060e-003	2.6170e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9000e-005	4.6000e-005
tblVehicleEF	LHD2	4.2300e-004	0.03

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tblVehicleEF	LHD2	0.02	8.3390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0400e-004	0.00
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	1.2100e-004	1.2300e-004
tblVehicleEF	LHD2	6.4670e-003	6.5820e-003
tblVehicleEF	LHD2	6.4000e-005	8.5000e-005
tblVehicleEF	LHD2	4.2300e-004	0.03
tblVehicleEF	LHD2	0.02	8.3390e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.0400e-004	0.00
tblVehicleEF	LHD2	0.11	0.08
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	MCY	0.32	0.13
tblVehicleEF	MCY	0.25	0.14
tblVehicleEF	MCY	17.76	9.71
tblVehicleEF	MCY	9.39	7.58
tblVehicleEF	MCY	212.58	185.26
tblVehicleEF	MCY	58.78	39.68
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	5.5840e-003
tblVehicleEF	MCY	1.14	0.47
tblVehicleEF	MCY	0.27	0.09
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.2180e-003	2.0690e-003
tblVehicleEF	MCY	3.0130e-003	3.6390e-003

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tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0680e-003	1.9300e-003
tblVehicleEF	MCY	2.8140e-003	3.4020e-003
tblVehicleEF	MCY	0.61	2.69
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.13	0.79
tblVehicleEF	MCY	0.39	3.67
tblVehicleEF	MCY	1.89	1.03
tblVehicleEF	MCY	2.1040e-003	1.8310e-003
tblVehicleEF	MCY	5.8200e-004	3.9200e-004
tblVehicleEF	MCY	0.61	0.07
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.68	0.98
tblVehicleEF	MCY	0.39	3.67
tblVehicleEF	MCY	2.06	1.12
tblVehicleEF	MDV	1.2400e-003	1.4660e-003
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.45	0.52
tblVehicleEF	MDV	2.21	2.46
tblVehicleEF	MDV	289.25	352.66
tblVehicleEF	MDV	60.44	87.77
tblVehicleEF	MDV	4.5060e-003	4.1700e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.15	0.22
tblVehicleEF	MDV	0.04	7.7870e-003
tblVehicleEF	MDV	9.5700e-004	8.5800e-004

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tblVehicleEF	MDV	1.2840e-003	1.4690e-003
tblVehicleEF	MDV	0.02	2.7250e-003
tblVehicleEF	MDV	8.8200e-004	7.9000e-004
tblVehicleEF	MDV	1.1810e-003	1.3510e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	4.5430e-003	5.3030e-003
tblVehicleEF	MDV	0.05	0.13
tblVehicleEF	MDV	0.16	0.24
tblVehicleEF	MDV	2.8580e-003	3.4850e-003
tblVehicleEF	MDV	5.9800e-004	8.6800e-004
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	6.5690e-003	7.7170e-003
tblVehicleEF	MDV	0.05	0.13
tblVehicleEF	MDV	0.18	0.26
tblVehicleEF	MH	4.0670e-003	4.8170e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	1.59	1.85
tblVehicleEF	MH	1,315.39	1,657.15
tblVehicleEF	MH	15.06	19.91
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.84	1.00
tblVehicleEF	MH	0.22	0.25
tblVehicleEF	MH	0.13	0.04

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tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1290e-003	0.01
tblVehicleEF	MH	2.2300e-004	2.4800e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2890e-003	3.3360e-003
tblVehicleEF	MH	8.6970e-003	0.01
tblVehicleEF	MH	2.0500e-004	2.2800e-004
tblVehicleEF	MH	0.16	10.82
tblVehicleEF	MH	0.01	2.82
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	2.9870e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.4900e-004	1.9700e-004
tblVehicleEF	MH	0.16	10.82
tblVehicleEF	MH	0.01	2.82
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.04	0.05
tblVehicleEF	MH	2.9870e-003	0.07
tblVehicleEF	MH	0.08	0.09
tblVehicleEF	MHD	3.9010e-003	0.02
tblVehicleEF	MHD	9.3700e-004	9.6240e-003
tblVehicleEF	MHD	8.5280e-003	9.1350e-003
tblVehicleEF	MHD	0.38	0.63
tblVehicleEF	MHD	0.14	0.16
tblVehicleEF	MHD	0.87	0.98
tblVehicleEF	MHD	55.53	130.08
tblVehicleEF	MHD	958.82	1,103.52

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tblVehicleEF	MHD	8.66	9.48
tblVehicleEF	MHD	7.8550e-003	0.02
tblVehicleEF	MHD	0.12	0.13
tblVehicleEF	MHD	8.0480e-003	6.8930e-003
tblVehicleEF	MHD	0.29	0.66
tblVehicleEF	MHD	1.31	0.56
tblVehicleEF	MHD	1.67	1.12
tblVehicleEF	MHD	1.1600e-004	6.3600e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	6.3200e-003	5.3910e-003
tblVehicleEF	MHD	1.1300e-004	1.1800e-004
tblVehicleEF	MHD	1.1100e-004	6.0800e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.0400e-003	5.1470e-003
tblVehicleEF	MHD	1.0400e-004	1.0900e-004
tblVehicleEF	MHD	2.1500e-004	0.02
tblVehicleEF	MHD	0.01	3.9100e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.5500e-004	0.00
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	5.2700e-004	1.1950e-003
tblVehicleEF	MHD	9.1510e-003	0.01
tblVehicleEF	MHD	8.6000e-005	9.4000e-005
tblVehicleEF	MHD	2.1500e-004	0.02
tblVehicleEF	MHD	0.01	3.9100e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.5500e-004	0.00

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tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	6.7860e-003	6.9140e-003
tblVehicleEF	OBUS	1.7360e-003	0.01
tblVehicleEF	OBUS	0.01	8.2390e-003
tblVehicleEF	OBUS	0.67	0.50
tblVehicleEF	OBUS	0.22	0.16
tblVehicleEF	OBUS	1.34	0.83
tblVehicleEF	OBUS	104.99	88.87
tblVehicleEF	OBUS	1,195.47	1,192.98
tblVehicleEF	OBUS	11.93	7.62
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.12	0.16
tblVehicleEF	OBUS	0.01	7.5270e-003
tblVehicleEF	OBUS	0.47	0.34
tblVehicleEF	OBUS	1.49	0.65
tblVehicleEF	OBUS	1.22	1.02
tblVehicleEF	OBUS	1.5600e-004	2.0700e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	8.0770e-003	7.6200e-003
tblVehicleEF	OBUS	1.4600e-004	8.4000e-005
tblVehicleEF	OBUS	1.4900e-004	1.9800e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.7140e-003	7.2850e-003
tblVehicleEF	OBUS	1.3400e-004	7.7000e-005
tblVehicleEF	OBUS	6.9700e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.05	0.03

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tblVehicleEF	OBUS	3.8500e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	9.9600e-004	8.3400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.1800e-004	7.5000e-005
tblVehicleEF	OBUS	6.9700e-004	0.03
tblVehicleEF	OBUS	0.01	6.5600e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.8500e-004	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	SBUS	0.16	0.11
tblVehicleEF	SBUS	5.7190e-003	0.07
tblVehicleEF	SBUS	0.01	8.9860e-003
tblVehicleEF	SBUS	5.81	2.80
tblVehicleEF	SBUS	0.52	0.91
tblVehicleEF	SBUS	2.02	1.22
tblVehicleEF	SBUS	372.76	200.53
tblVehicleEF	SBUS	883.04	857.53
tblVehicleEF	SBUS	11.09	6.59
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.08	0.09
tblVehicleEF	SBUS	0.01	6.2860e-003
tblVehicleEF	SBUS	2.28	1.04
tblVehicleEF	SBUS	2.37	1.45
tblVehicleEF	SBUS	0.99	0.50

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tblVehicleEF	SBUS	1.7990e-003	7.5800e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	9.6950e-003	9.8790e-003
tblVehicleEF	SBUS	0.01	7.0920e-003
tblVehicleEF	SBUS	1.8900e-004	9.4000e-005
tblVehicleEF	SBUS	1.7210e-003	7.2300e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.4240e-003	2.4700e-003
tblVehicleEF	SBUS	0.01	6.7620e-003
tblVehicleEF	SBUS	1.7400e-004	8.6000e-005
tblVehicleEF	SBUS	1.0240e-003	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.71	0.33
tblVehicleEF	SBUS	5.6900e-004	0.00
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	3.5870e-003	1.8280e-003
tblVehicleEF	SBUS	8.5360e-003	8.0270e-003
tblVehicleEF	SBUS	1.1000e-004	6.5000e-005
tblVehicleEF	SBUS	1.0240e-003	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.03	0.51
tblVehicleEF	SBUS	5.6900e-004	0.00
tblVehicleEF	SBUS	0.07	0.13
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.09	0.06
tblVehicleEF	UBUS	1.75	0.64
tblVehicleEF	UBUS	8.0630e-003	4.5120e-003

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tblVehicleEF	UBUS	13.25	7.38
tblVehicleEF	UBUS	0.82	0.83
tblVehicleEF	UBUS	1,616.16	954.90
tblVehicleEF	UBUS	7.49	5.22
tblVehicleEF	UBUS	0.27	0.14
tblVehicleEF	UBUS	5.7250e-003	6.8380e-003
tblVehicleEF	UBUS	0.67	0.21
tblVehicleEF	UBUS	0.07	0.04
tblVehicleEF	UBUS	0.08	0.16
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	4.9300e-003	3.9500e-003
tblVehicleEF	UBUS	9.1000e-005	2.5000e-005
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	7.8010e-003	0.02
tblVehicleEF	UBUS	4.7140e-003	3.7730e-003
tblVehicleEF	UBUS	8.3000e-005	2.3000e-005
tblVehicleEF	UBUS	1.3500e-004	0.01
tblVehicleEF	UBUS	1.6730e-003	3.4250e-003
tblVehicleEF	UBUS	8.4000e-005	0.00
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	5.1800e-004	0.01
tblVehicleEF	UBUS	0.04	0.02
tblVehicleEF	UBUS	0.01	7.2300e-003
tblVehicleEF	UBUS	7.4000e-005	5.2000e-005
tblVehicleEF	UBUS	1.3500e-004	0.01
tblVehicleEF	UBUS	1.6730e-003	3.4250e-003
tblVehicleEF	UBUS	8.4000e-005	0.00
tblVehicleEF	UBUS	1.79	0.69
tblVehicleEF	UBUS	5.1800e-004	0.01

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tblVehicleEF	UBUS	0.04	0.02
tblVehicleTrips	ST_TR	4.91	6.58
tblVehicleTrips	SU_TR	4.09	5.48
tblVehicleTrips	WD_TR	5.44	7.29
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	2.44	0.00
tblWoodstoves	NumberNoncatalytic	2.44	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	0.5936	0.0104	0.9046	5.0000e-005		5.0300e-003	5.03E-03		5.0300e-003	5.03E-03	0.0000	1.4819	1.4819	1.4200e-003	0.0000	1.5173

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Energy	0	0	0.0000	0.0000		0.0000	0		0.0000	0	0.0000	0.0000	0.0000	0.0000	0.0000	0
Mobile	0.3488	0.2032	2.3739	6.6000e-003	0.6551	3.2600e-003	0.6584	0.1633	3.0300e-003	0.1663	0.0000	609.0890	609.0890	0.0261	0.0233	616.6872
Waste						0.0000	0.0000		0.0000	0.0000	11.3919	0.0000	11.3919	0.6732	0.0000	28.2228
Water						0.0000	0.0000		0.0000	0.0000	2.8123	0.0000	2.8123	9.6800e-003	6.1200e-003	4.8768
Total	**0.9424**	**0.2136**	**3.2785**	**6.6500e-003**	**0.6551**	**8.2900e-003**	**0.6634**	**0.1633**	**8.0600e-003**	**0.1714**	**14.2041**	**610.5709**	**624.7750**	**0.7105**	**0.0294**	**651.3040**

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	0.5936	0.0104	0.9046	5.0000e-005		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	1.4819	1.4819	1.4200e-003	0.0000	1.5173
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	0.0000
Mobile	0.3488	0.2032	2.3739	6.6000e-003	0.6551	3.2600e-003	0.6584	0.1633	3.0300e-003	0.1663	0.0000	609.0890	609.0890	0.0261	0.0233	616.6872
Waste						0.0000	0.0000		0.0000	0.0000	11.3919	0.0000	11.3919	0.6732	0.0000	28.2228
Water						0.0000	0.0000		0.0000	0.0000	2.8123	0.0000	2.8123	9.6800e-003	6.1200e-003	4.8768
Total	**0.9424**	**0.2136**	**3.2785**	**6.6500e-003**	**0.6551**	**8.2900e-003**	**0.6634**	**0.1633**	**8.0600e-003**	**0.1714**	**14.2041**	**610.5709**	**624.7750**	**0.7105**	**0.0294**	**651.3040**

	ROG	NOx	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**

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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	0.3488	0.2032	2.3739	6.6000e-003	0.6551	3.2600e-003	0.6584	0.1633	3.0300e-003	0.1663	0.0000	609.0890	609.0890	0.0261	0.0233	616.6872
Unmitigated	0.3488	0.2032	2.3739	6.6000e-003	0.6551	3.2600e-003	0.6584	0.1633	3.0300e-003	0.1663	0.0000	609.0890	609.0890	0.0261	0.0233	616.6872

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	889.38	802.76	668.56	1,952,681	1,952,681
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	889.38	802.76	668.56	1,952,681	1,952,681

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unenclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Parking Lot	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Unenclosed Parking Structure	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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

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	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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
Unenclosed Parking Structure	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					
Apartments Mid Rise	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
Unenclosed Parking Structure	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

Date: 6/1/2022 4:30 PM

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

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	474440	0.0000	0.0000	0.0000	0.0000
Parking Lot	6860	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	50400	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	474440	0.0000	0.0000	0.0000	0.0000
Parking Lot	6860	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	50400	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 Not 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	0.5936	0.0104	0.9046	5.0000e-005		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	1.4819	1.4819	1.4200e-003	0.0000	1.5173
Unmitigated	0.5936	0.0104	0.9046	5.0000e-005		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	1.4819	1.4819	1.4200e-003	0.0000	1.5173

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	0.0869					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4796					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0271	0.0104	0.9046	5.0000e-005		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	1.4819	1.4819	1.4200e-003	0.0000	1.5173

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

Total	**0.5936**	**0.0104**	**0.9046**	**5.0000e-005**		**5.0300e-003**	**5.0300e-003**		**5.0300e-003**	**5.0300e-003**	**0.0000**	**1.4819**	**1.4819**	**1.4200e-003**	**0.0000**	**1.5173**

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	0.0869					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4796					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0271	0.0104	0.9046	5.0000e-005		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	1.4819	1.4819	1.4200e-003	0.0000	1.5173
Total	**0.5936**	**0.0104**	**0.9046**	**5.0000e-005**		**5.0300e-003**	**5.0300e-003**		**5.0300e-003**	**5.0300e-003**	**0.0000**	**1.4819**	**1.4819**	**1.4200e-003**	**0.0000**	**1.5173**

7.0 Water Detail

7.1 Mitigation Measures Water

	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	MT/yr			
Mitigated	2.8123	9.6800e-003	6.1200e-003	4.8768
Unmitigated	2.8123	9.6800e-003	6.1200e-003	4.8768

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.94879 / 5.01119	2.8123	9.6800e-003	6.1200e-003	4.8768
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.8123**	**9.6800e-003**	**6.1200e-003**	**4.8768**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

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

Apartments Mid Rise	7.94879 / 5.01119	2.8123	9.6800e-003	6.1200e-003	4.8768
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.8123**	**9.6800e-003**	**6.1200e-003**	**4.8768**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.3919	0.6732	0.0000	28.2228
Unmitigated	11.3919	0.6732	0.0000	28.2228

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	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

Land Use	tons	MT/yr			
Apartments Mid Rise	56.12	11.3919	0.6732	0.0000	28.2228
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**11.3919**	**0.6732**	**0.0000**	**28.2228**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	56.12	11.3919	0.6732	0.0000	28.2228
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**11.3919**	**0.6732**	**0.0000**	**28.2228**

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 Not 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

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

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	118.19	1000sqft	2.71	118,190.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided Square Footage - General Office Use used to represent various existing uses (school distict offices and centers, gyms, churches, etc.)

Construction Phase - Existing Uses - no construction

Off-road Equipment - Existing Uses - no construction

Grading -

Vehicle Trips - Provided traffic existing trip gen rate

Vehicle Emission Factors - EMFAC2021 Vehicle Emissions Factors San Mateo County 2022

Fleet Mix - EMFAC2021 Fleet Mix San Mateo County 2022

Energy Use - Historical Energy Data Used

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	1.00

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

tblConstructionPhase	PhaseEndDate	3/3/2022	3/1/2022
tblFleetMix	HHD	2.2470e-003	2.7140e-003
tblFleetMix	LDA	0.49	0.50
tblFleetMix	LDT1	0.07	0.05
tblFleetMix	LDT2	0.22	0.25
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	5.8150e-003	5.4440e-003
tblFleetMix	MCY	0.03	0.02
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	2.4690e-003	1.9850e-003
tblFleetMix	MHD	9.9900e-003	9.3450e-003
tblFleetMix	OBUS	1.5780e-003	2.4380e-003
tblFleetMix	SBUS	4.4000e-004	4.3700e-004
tblFleetMix	UBUS	6.3600e-004	8.2800e-004
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblVehicleEF	HHD	0.03	0.26
tblVehicleEF	HHD	0.17	0.28
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	4.86	4.44
tblVehicleEF	HHD	1.00	1.69
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	986.47	817.56
tblVehicleEF	HHD	1,722.89	1,847.10
tblVehicleEF	HHD	0.24	0.31

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tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.28	0.30
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	5.83	4.43
tblVehicleEF	HHD	4.02	3.26
tblVehicleEF	HHD	2.10	2.39
tblVehicleEF	HHD	5.0230e-003	3.8270e-003
tblVehicleEF	HHD	0.06	0.10
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	2.0000e-006	6.0000e-006
tblVehicleEF	HHD	4.8060e-003	3.6570e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6930e-003	8.6220e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	1.0000e-006	5.0000e-006
tblVehicleEF	HHD	3.0000e-006	9.9100e-004
tblVehicleEF	HHD	1.6300e-004	2.7700e-004
tblVehicleEF	HHD	0.36	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.09	0.05
tblVehicleEF	HHD	7.5000e-005	2.2870e-003
tblVehicleEF	HHD	1.5000e-005	4.0000e-006
tblVehicleEF	HHD	8.8510e-003	6.9760e-003
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	2.0000e-006	3.0000e-006
tblVehicleEF	HHD	3.0000e-006	9.9100e-004
tblVehicleEF	HHD	1.6300e-004	2.7700e-004
tblVehicleEF	HHD	0.42	0.58

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

tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.27	0.33
tblVehicleEF	HHD	7.5000e-005	2.2870e-003
tblVehicleEF	HHD	1.7000e-005	4.0000e-006
tblVehicleEF	LDA	2.0280e-003	2.3190e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.56	0.66
tblVehicleEF	LDA	2.27	3.35
tblVehicleEF	LDA	246.96	260.55
tblVehicleEF	LDA	52.49	67.65
tblVehicleEF	LDA	4.3020e-003	4.5170e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.19	0.25
tblVehicleEF	LDA	0.04	6.4730e-003
tblVehicleEF	LDA	1.3690e-003	1.2840e-003
tblVehicleEF	LDA	1.8120e-003	2.1480e-003
tblVehicleEF	LDA	0.02	2.2660e-003
tblVehicleEF	LDA	1.2610e-003	1.1820e-003
tblVehicleEF	LDA	1.6660e-003	1.9750e-003
tblVehicleEF	LDA	0.03	0.27
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	7.9910e-003	9.2860e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.23	0.34
tblVehicleEF	LDA	2.4430e-003	2.5760e-003
tblVehicleEF	LDA	5.1900e-004	6.6900e-004
tblVehicleEF	LDA	0.03	0.27

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tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.25	0.37
tblVehicleEF	LDT1	3.2790e-003	6.2870e-003
tblVehicleEF	LDT1	0.06	0.11
tblVehicleEF	LDT1	0.78	1.36
tblVehicleEF	LDT1	2.36	5.61
tblVehicleEF	LDT1	287.63	330.88
tblVehicleEF	LDT1	61.36	87.79
tblVehicleEF	LDT1	5.4800e-003	9.5160e-003
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.13
tblVehicleEF	LDT1	0.21	0.39
tblVehicleEF	LDT1	0.04	8.0920e-003
tblVehicleEF	LDT1	1.7500e-003	1.9810e-003
tblVehicleEF	LDT1	2.2560e-003	3.0330e-003
tblVehicleEF	LDT1	0.02	2.8320e-003
tblVehicleEF	LDT1	1.6100e-003	1.8230e-003
tblVehicleEF	LDT1	2.0740e-003	2.7890e-003
tblVehicleEF	LDT1	0.05	0.54
tblVehicleEF	LDT1	0.12	0.16
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.01	0.03
tblVehicleEF	LDT1	0.07	0.45
tblVehicleEF	LDT1	0.27	0.57
tblVehicleEF	LDT1	2.8460e-003	3.2710e-003
tblVehicleEF	LDT1	6.0700e-004	8.6800e-004

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tblVehicleEF	LDT1	0.05	0.54
tblVehicleEF	LDT1	0.12	0.16
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.07	0.45
tblVehicleEF	LDT1	0.30	0.62
tblVehicleEF	LDT2	2.6450e-003	2.6020e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.66	0.74
tblVehicleEF	LDT2	2.77	3.68
tblVehicleEF	LDT2	306.08	343.01
tblVehicleEF	LDT2	65.86	87.58
tblVehicleEF	LDT2	5.3110e-003	5.5380e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.25	0.32
tblVehicleEF	LDT2	0.04	7.7140e-003
tblVehicleEF	LDT2	1.4770e-003	1.3870e-003
tblVehicleEF	LDT2	1.8690e-003	2.1920e-003
tblVehicleEF	LDT2	0.02	2.7000e-003
tblVehicleEF	LDT2	1.3590e-003	1.2760e-003
tblVehicleEF	LDT2	1.7190e-003	2.0160e-003
tblVehicleEF	LDT2	0.04	0.22
tblVehicleEF	LDT2	0.09	0.07
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.17
tblVehicleEF	LDT2	0.28	0.37
tblVehicleEF	LDT2	3.0280e-003	3.3910e-003

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

tblVehicleEF	LDT2	6.5200e-004	8.6600e-004
tblVehicleEF	LDT2	0.04	0.22
tblVehicleEF	LDT2	0.09	0.07
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.05	0.17
tblVehicleEF	LDT2	0.31	0.41
tblVehicleEF	LHD1	5.3000e-003	5.8430e-003
tblVehicleEF	LHD1	7.2240e-003	7.3840e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.19	0.21
tblVehicleEF	LHD1	0.62	0.87
tblVehicleEF	LHD1	1.08	2.43
tblVehicleEF	LHD1	8.84	8.65
tblVehicleEF	LHD1	796.65	802.84
tblVehicleEF	LHD1	12.03	20.18
tblVehicleEF	LHD1	7.1700e-004	5.7900e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.52	0.56
tblVehicleEF	LHD1	0.31	0.47
tblVehicleEF	LHD1	7.9700e-004	5.8300e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.6980e-003	9.2050e-003
tblVehicleEF	LHD1	8.2510e-003	0.01
tblVehicleEF	LHD1	2.4800e-004	2.2600e-004
tblVehicleEF	LHD1	7.6300e-004	5.5800e-004
tblVehicleEF	LHD1	0.03	0.03

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

tblVehicleEF	LHD1	2.4250e-003	2.3010e-003
tblVehicleEF	LHD1	7.8460e-003	0.01
tblVehicleEF	LHD1	2.2800e-004	2.0800e-004
tblVehicleEF	LHD1	1.2870e-003	0.11
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.9700e-004	0.00
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.07	0.12
tblVehicleEF	LHD1	8.6000e-005	8.4000e-005
tblVehicleEF	LHD1	7.7840e-003	7.8580e-003
tblVehicleEF	LHD1	1.1900e-004	2.0000e-004
tblVehicleEF	LHD1	1.2870e-003	0.11
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	7.9700e-004	0.00
tblVehicleEF	LHD1	0.10	0.09
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.07	0.13
tblVehicleEF	LHD2	3.3550e-003	3.6130e-003
tblVehicleEF	LHD2	6.3020e-003	6.7180e-003
tblVehicleEF	LHD2	8.1370e-003	0.01
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.52	0.58
tblVehicleEF	LHD2	0.67	1.46
tblVehicleEF	LHD2	13.62	13.35
tblVehicleEF	LHD2	772.49	845.43
tblVehicleEF	LHD2	8.39	11.54

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

tblVehicleEF	LHD2	1.6520e-003	1.5390e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	0.57	0.73
tblVehicleEF	LHD2	0.19	0.28
tblVehicleEF	LHD2	1.3540e-003	1.2420e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.3800e-004	1.2400e-004
tblVehicleEF	LHD2	1.2960e-003	1.1880e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6700e-003	2.6260e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.2700e-004	1.1400e-004
tblVehicleEF	LHD2	7.5600e-004	0.07
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.6600e-004	0.00
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.04	0.07
tblVehicleEF	LHD2	1.3000e-004	1.2800e-004
tblVehicleEF	LHD2	7.4680e-003	8.1630e-003
tblVehicleEF	LHD2	8.3000e-005	1.1400e-004
tblVehicleEF	LHD2	7.5600e-004	0.07
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.02	0.02

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

tblVehicleEF	LHD2	4.6600e-004	0.00
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.04	0.08
tblVehicleEF	MCY	0.33	0.16
tblVehicleEF	MCY	0.26	0.19
tblVehicleEF	MCY	19.02	12.33
tblVehicleEF	MCY	9.17	7.96
tblVehicleEF	MCY	213.08	188.69
tblVehicleEF	MCY	60.80	50.07
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	8.6710e-003
tblVehicleEF	MCY	1.15	0.56
tblVehicleEF	MCY	0.27	0.15
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0940e-003	2.0070e-003
tblVehicleEF	MCY	3.3370e-003	4.0700e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9560e-003	1.8800e-003
tblVehicleEF	MCY	3.1380e-003	3.8360e-003
tblVehicleEF	MCY	0.62	3.59
tblVehicleEF	MCY	0.57	3.56
tblVehicleEF	MCY	0.38	0.00
tblVehicleEF	MCY	2.21	1.05
tblVehicleEF	MCY	0.44	3.72
tblVehicleEF	MCY	1.97	1.43
tblVehicleEF	MCY	2.1090e-003	1.8650e-003
tblVehicleEF	MCY	6.0200e-004	4.9500e-004
tblVehicleEF	MCY	0.62	0.08

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

tblVehicleEF	MCY	0.57	3.56
tblVehicleEF	MCY	0.38	0.00
tblVehicleEF	MCY	2.75	1.26
tblVehicleEF	MCY	0.44	3.72
tblVehicleEF	MCY	2.14	1.56
tblVehicleEF	MDV	2.8920e-003	3.2010e-003
tblVehicleEF	MDV	0.07	0.10
tblVehicleEF	MDV	0.69	0.80
tblVehicleEF	MDV	3.04	3.95
tblVehicleEF	MDV	368.66	412.18
tblVehicleEF	MDV	78.55	104.66
tblVehicleEF	MDV	6.9690e-003	7.1730e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.29	0.40
tblVehicleEF	MDV	0.04	7.7630e-003
tblVehicleEF	MDV	1.5500e-003	1.4520e-003
tblVehicleEF	MDV	1.9760e-003	2.3430e-003
tblVehicleEF	MDV	0.02	2.7170e-003
tblVehicleEF	MDV	1.4290e-003	1.3380e-003
tblVehicleEF	MDV	1.8170e-003	2.1540e-003
tblVehicleEF	MDV	0.04	0.26
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.05	0.20
tblVehicleEF	MDV	0.34	0.48
tblVehicleEF	MDV	3.6430e-003	4.0720e-003
tblVehicleEF	MDV	7.7700e-004	1.0350e-003

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

tblVehicleEF	MDV	0.04	0.26
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.05	0.20
tblVehicleEF	MDV	0.37	0.52
tblVehicleEF	MH	7.8210e-003	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.73	1.52
tblVehicleEF	MH	2.03	2.75
tblVehicleEF	MH	1,502.52	1,675.54
tblVehicleEF	MH	18.02	23.04
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.03	1.39
tblVehicleEF	MH	0.24	0.29
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.7100e-004	3.6600e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2730e-003	3.3160e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	2.4900e-004	3.3600e-004
tblVehicleEF	MH	0.38	30.99
tblVehicleEF	MH	0.04	9.08
tblVehicleEF	MH	0.16	0.00
tblVehicleEF	MH	0.05	0.09
tblVehicleEF	MH	8.9160e-003	0.21

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

tblVehicleEF	MH	0.09	0.12
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7800e-004	2.2800e-004
tblVehicleEF	MH	0.38	30.99
tblVehicleEF	MH	0.04	9.08
tblVehicleEF	MH	0.16	0.00
tblVehicleEF	MH	0.07	0.12
tblVehicleEF	MH	8.9160e-003	0.21
tblVehicleEF	MH	0.10	0.13
tblVehicleEF	MHD	3.9210e-003	0.01
tblVehicleEF	MHD	4.7020e-003	0.01
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.38	0.65
tblVehicleEF	MHD	0.43	0.60
tblVehicleEF	MHD	1.26	1.48
tblVehicleEF	MHD	68.23	157.17
tblVehicleEF	MHD	1,119.63	1,289.87
tblVehicleEF	MHD	10.33	11.01
tblVehicleEF	MHD	9.7120e-003	0.02
tblVehicleEF	MHD	0.14	0.15
tblVehicleEF	MHD	8.1860e-003	7.8620e-003
tblVehicleEF	MHD	0.49	1.01
tblVehicleEF	MHD	1.73	1.59
tblVehicleEF	MHD	1.39	1.20
tblVehicleEF	MHD	9.9300e-004	3.1930e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.2700e-004	1.4400e-004
tblVehicleEF	MHD	9.5000e-004	3.0550e-003

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

tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.1700e-004	1.3300e-004
tblVehicleEF	MHD	3.4300e-004	0.03
tblVehicleEF	MHD	0.02	8.8150e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.1300e-004	0.00
tblVehicleEF	MHD	0.07	0.07
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.06	0.07
tblVehicleEF	MHD	6.4800e-004	1.4600e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.0200e-004	1.0900e-004
tblVehicleEF	MHD	3.4300e-004	0.03
tblVehicleEF	MHD	0.02	8.8150e-003
tblVehicleEF	MHD	0.03	0.05
tblVehicleEF	MHD	2.1300e-004	0.00
tblVehicleEF	MHD	0.08	0.09
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.06	0.07
tblVehicleEF	OBUS	6.7140e-003	8.1590e-003
tblVehicleEF	OBUS	5.0760e-003	8.2520e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.58	0.46
tblVehicleEF	OBUS	0.49	0.31
tblVehicleEF	OBUS	1.56	1.18
tblVehicleEF	OBUS	107.54	92.23
tblVehicleEF	OBUS	1,354.47	1,344.38
tblVehicleEF	OBUS	13.26	10.27

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

tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.14	0.17
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.54	0.43
tblVehicleEF	OBUS	1.87	0.94
tblVehicleEF	OBUS	1.06	1.06
tblVehicleEF	OBUS	7.9200e-004	2.5800e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	0.02	9.2440e-003
tblVehicleEF	OBUS	1.3600e-004	1.0300e-004
tblVehicleEF	OBUS	7.5800e-004	2.4700e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.02	8.8370e-003
tblVehicleEF	OBUS	1.2500e-004	9.4000e-005
tblVehicleEF	OBUS	7.7900e-004	0.03
tblVehicleEF	OBUS	0.01	8.9140e-003
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	0.06	0.03
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	1.0200e-003	8.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.3100e-004	1.0100e-004
tblVehicleEF	OBUS	7.7900e-004	0.03
tblVehicleEF	OBUS	0.01	8.9140e-003
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	0.07	0.05

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

tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.08	0.06
tblVehicleEF	SBUS	0.08	0.09
tblVehicleEF	SBUS	0.01	0.09
tblVehicleEF	SBUS	8.1020e-003	7.9980e-003
tblVehicleEF	SBUS	2.98	2.07
tblVehicleEF	SBUS	1.00	1.81
tblVehicleEF	SBUS	1.26	1.18
tblVehicleEF	SBUS	360.00	206.71
tblVehicleEF	SBUS	1,028.45	1,021.11
tblVehicleEF	SBUS	6.23	5.49
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	5.9500e-003	4.8570e-003
tblVehicleEF	SBUS	3.52	1.58
tblVehicleEF	SBUS	5.24	3.32
tblVehicleEF	SBUS	0.62	0.44
tblVehicleEF	SBUS	4.5830e-003	1.8680e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	9.6000e-005	7.3000e-005
tblVehicleEF	SBUS	4.3850e-003	1.7860e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.5990e-003	2.6000e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	8.9000e-005	6.7000e-005
tblVehicleEF	SBUS	5.6200e-004	0.05
tblVehicleEF	SBUS	7.2750e-003	0.01

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

tblVehicleEF	SBUS	0.36	0.24
tblVehicleEF	SBUS	2.5600e-004	0.00
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	3.4360e-003	1.8970e-003
tblVehicleEF	SBUS	9.8650e-003	9.5730e-003
tblVehicleEF	SBUS	6.2000e-005	5.4000e-005
tblVehicleEF	SBUS	5.6200e-004	0.05
tblVehicleEF	SBUS	7.2750e-003	0.01
tblVehicleEF	SBUS	0.51	0.38
tblVehicleEF	SBUS	2.5600e-004	0.00
tblVehicleEF	SBUS	0.14	0.20
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	UBUS	0.84	0.16
tblVehicleEF	UBUS	0.01	7.7750e-003
tblVehicleEF	UBUS	5.26	2.06
tblVehicleEF	UBUS	0.82	0.83
tblVehicleEF	UBUS	1,802.99	1,395.58
tblVehicleEF	UBUS	9.26	5.76
tblVehicleEF	UBUS	0.28	0.20
tblVehicleEF	UBUS	7.0140e-003	0.01
tblVehicleEF	UBUS	3.45	2.45
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	0.08	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	7.7550e-003	6.8420e-003
tblVehicleEF	UBUS	5.0000e-005	1.5000e-005

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

tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.8010e-003	7.3410e-003
tblVehicleEF	UBUS	7.4180e-003	6.5410e-003
tblVehicleEF	UBUS	4.6000e-005	1.4000e-005
tblVehicleEF	UBUS	3.7600e-004	0.02
tblVehicleEF	UBUS	6.3660e-003	8.2350e-003
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	2.2390e-003	0.01
tblVehicleEF	UBUS	0.06	0.03
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	9.2000e-005	5.7000e-005
tblVehicleEF	UBUS	3.7600e-004	0.02
tblVehicleEF	UBUS	6.3660e-003	8.2350e-003
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.86	0.31
tblVehicleEF	UBUS	2.2390e-003	0.01
tblVehicleEF	UBUS	0.06	0.03
tblVehicleTrips	ST_TR	2.21	2.02
tblVehicleTrips	SU_TR	0.70	0.64
tblVehicleTrips	WD_TR	9.74	8.91

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5233	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.25E-03
Energy	0.0150	0.1367	0.1148	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	308.0030	308.0030	0.0286	5.8500e-003	310.4615
Mobile	0.4767	0.3567	3.2767	7.3100e-003	0.6383	4.9900e-003	0.6433	0.1590	4.6500e-003	0.1637	0.0000	674.0670	674.0670	0.0373	0.0294	683.747
Waste						0.0000	0.0000		0.0000	0.0000	22.3128	0.0000	22.3128	1.3187	0.0000	55.2789
Water						0.0000	0.0000		0.0000	0.0000	6.6644	14.6861	21.3504	0.6869	0.0165	43.4243
Total	**1.015**	**0.4933**	**3.3926**	**8.1300e-003**	**0.6383**	**0.0154**	**0.6537**	**0.1590**	**0.0150**	**0.1741**	**28.9771**	**996.7581**	**1,025.7352**	**2.0714**	**0.0517**	**1,092.9140**

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	0.5233	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2500e-003
Energy	0.0150	0.1367	0.1148	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	308.0030	308.0030	0.0286	5.8500e-003	310.4615
Mobile	0.4767	0.3567	3.2767	7.3100e-003	0.6383	4.9900e-003	0.6433	0.1590	4.6500e-003	0.1637	0.0000	674.0670	674.0670	0.0373	0.0294	683.7470
Waste						0.0000	0.0000		0.0000	0.0000	22.3128	0.0000	22.3128	1.3187	0.0000	55.2789
Water						0.0000	0.0000		0.0000	0.0000	6.6644	14.6861	21.3504	0.6869	0.0165	43.4243
Total	**1.0150**	**0.4933**	**3.3926**	**8.1300e-003**	**0.6383**	**0.0154**	**0.6537**	**0.1590**	**0.0150**	**0.1741**	**28.9771**	**996.7581**	**1,025.7352**	**2.0714**	**0.0517**	**1,092.9140**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.4767	0.3567	3.2767	7.3100e-003	0.6383	4.9900e-003	0.6433	0.1590	4.6500e-003	0.1637	0.0000	674.0670	674.0670	0.0373	0.0294	683.7470
Unmitigated	0.4767	0.3567	3.2767	7.3100e-003	0.6383	4.9900e-003	0.6433	0.1590	4.6500e-003	0.1637	0.0000	674.0670	674.0670	0.0373	0.0294	683.7470

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,053.07	238.74	75.64	1,904,889	1,904,889
Total	1,053.07	238.74	75.64	1,904,889	1,904,889

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

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

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.495110	0.045708	0.246625	0.140491	0.026659	0.005444	0.009345	0.002714	0.002438	0.000828	0.022216	0.000437	0.001985

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	159.2192	159.2192	0.0258	3.1200e-003	160.7936
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	159.2192	159.2192	0.0258	3.1200e-003	160.7936
NaturalGas Mitigated	0.0150	0.1367	0.1148	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.7838	148.7838	2.8500e-003	2.7300e-003	149.6679
NaturalGas Unmitigated	0.0150	0.1367	0.1148	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.7838	148.7838	2.8500e-003	2.7300e-003	149.6679

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

	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					
General Office Building	2.7881e+006	0.0150	0.1367	0.1148	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.7838	148.7838	2.8500e-003	2.7300e-003	149.6679
Total		**0.0150**	**0.1367**	**0.1148**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**	**0.0000**	**148.7838**	**148.7838**	**2.8500e-003**	**2.7300e-003**	**149.6679**

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					
General Office Building	2.7881e+006	0.0150	0.1367	0.1148	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.7838	148.7838	2.8500e-003	2.7300e-003	149.6679
Total		**0.0150**	**0.1367**	**0.1148**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**	**0.0000**	**148.7838**	**148.7838**	**2.8500e-003**	**2.7300e-003**	**149.6679**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	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

Land Use	kWh/yr	MT/yr			
General Office Building	1.72085e+006	159.2192	0.0258	3.1200e-003	160.7936
Total		**159.2192**	**0.0258**	**3.1200e-003**	**160.7936**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.72085e+006	159.2192	0.0258	3.1200e-003	160.7936
Total		**159.2192**	**0.0258**	**3.1200e-003**	**160.7936**

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

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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					
Mitigated	0.5233	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2500e-003
Unmitigated	0.5233	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2500e-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	0.0616					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4616					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2500e-003
Total	**0.5233**	**1.0000e-005**	**1.0900e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2500e-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					

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

Architectural Coating	0.0616					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4616					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2500e-003
Total	**0.5233**	**1.0000e-005**	**1.0900e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.3504	0.6869	0.0165	43.4243
Unmitigated	21.3504	0.6869	0.0165	43.4243

7.2 Water by Land Use

Unmitigated

Indoor/Outdoor Use	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

Land Use	Mgal	MT/yr			
General Office Building	21.0064 / 12.8749	21.3504	0.6869	0.0165	43.4243
Total		**21.3504**	**0.6869**	**0.0165**	**43.4243**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	21.0064 / 12.8749	21.3504	0.6869	0.0165	43.4243
Total		**21.3504**	**0.6869**	**0.0165**	**43.4243**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	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

	MT/yr			
Mitigated	22.3128	1.3187	0.0000	55.2789
Unmitigated	22.3128	1.3187	0.0000	55.2789

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	109.92	22.3128	1.3187	0.0000	55.2789
Total		**22.3128**	**1.3187**	**0.0000**	**55.2789**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	109.92	22.3128	1.3187	0.0000	55.2789
Total		**22.3128**	**1.3187**	**0.0000**	**55.2789**

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

Attachment 3: EMFAC2021 Calculations

Summary of Construction Traffic Emissions (EMFAC2021)

Phase / Parcel	Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
						Tons							*Metric Tons*		
Criteria Pollutants															
Phase 1 Parcel	*2023*	0.0284	0.2145	0.3723	0.0017	0.0883	0.0129	0.1012	0.0133	0.0053	0.0186	168.2434	0.0159	0.0180	174.0038
B	*2024*	0.0422	0.3255	0.5622	0.0027	0.1417	0.0205	0.1622	0.0213	0.0083	0.0296	264.7639	0.0245	0.0282	273.7913
Phase 2	*2025-2026*	0.0808	0.4181	0.9988	0.0045	0.3011	0.0326	0.3338	0.0453	0.0127	0.0580	438.5686	0.0299	0.0383	450.7417
Parcels C & D	*2027*	0.0316	0.1639	0.3937	0.0018	0.1250	0.0135	0.1385	0.0188	0.0052	0.0240	178.2131	0.0117	0.0155	183.1221
Phase 3	*2028*	0.0844	0.3830	1.0272	0.0048	0.3489	0.0345	0.3834	0.0525	0.0131	0.0656	461.0631	0.0266	0.0371	472.7987
Parcels E & F	*2029*	0.0442	0.2007	0.5449	0.0026	0.1938	0.0190	0.2128	0.0292	0.0071	0.0363	250.3525	0.0139	0.0200	256.6588
Toxic Air Contaminants (1 Mile Trip Length)															
Phase 1 Parcel	*2023*	0.0235	0.0533	0.1255	0.0002	0.0082	0.0012	0.0094	0.0012	0.0005	0.0018	19.4990	0.0036	0.0026	20.3733
B	*2024*	0.0352	0.0830	0.1895	0.0003	0.0131	0.0019	0.0150	0.0020	0.0008	0.0028	30.6982	0.0055	0.0041	32.0630
Phase 2	*2025-2026*	0.0703	0.1352	0.3634	0.0006	0.0290	0.0035	0.0325	0.0044	0.0015	0.0058	56.8574	0.0093	0.0072	59.2443
Parcels C & D	*2027*	0.0277	0.0543	0.1434	0.0002	0.0120	0.0014	0.0135	0.0018	0.0006	0.0024	23.1091	0.0037	0.0029	24.0717
Phase 3	*2028*	0.0749	0.1397	0.3827	0.0006	0.0339	0.0039	0.0378	0.0051	0.0016	0.0067	62.0173	0.0094	0.0077	64.5530
Parcels E & F	*2029*	0.0394	0.0748	0.2032	0.0003	0.0188	0.0022	0.0210	0.0028	0.0009	0.0037	33.6563	0.0050	0.0042	35.0229

Phase 1 - CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	300	0	42	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	840
Site Preparation	18	0	180	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1944	0	0
Grading	15	0	300	0	3,991	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	79820
Trenching	5	0	100	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1080	0	0
Building Construction	208	47	47840	10810	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	516672	78913	0
Architectural Coating	42	0	840	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	9072	0	0
Paving	15	0	300	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	3240	0	0

Number of Days Per Year					
2023	7/3/23	12/31/23	182	130	
2024	1/1/24	10/18/24	292	209	
			474	**339**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	7/3/2023	7/28/2023	5	20
Site Preparation	7/29/2023	8/11/2023	5	10
Grading	8/12/2023	9/8/2023	5	20
Trenching	9/9/2023	10/6/2023	5	20
Building Construction	10/7/2023	8/23/2024	5	230
Architectural Coating	8/24/2024	9/20/2024	5	20
Paving	9/21/2024	10/18/2024	5	20

Phase 2 - CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	300	0	248	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	4960
Site Preparation	18	0	180	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1944	0	0
Grading	20	0	600	0	2,168	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	6480	0	43360
Trenching	5	0	150	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1620	0	0
Building Construction	328	69	98400	20700	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1062720	151110	0
Architectural Coating	66	0	1320	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	14256	0	0
Paving	15	0	300	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	3240	0	0

Number of Days Per Year					
2025-2026	11/3/25	12/31/26	424	304	
2027	1/1/27	6/25/27	176	126	
			600	**430**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	11/3/2025	11/28/2025	5	20
Site Preparation	11/29/2025	12/12/2025	5	10
Grading	12/13/2025	1/23/2026	5	30
Trenching	1/24/2026	3/6/2026	5	30
Building Construction	3/7/2026	4/30/2027	5	300
Architectural Coating	5/1/2027	5/28/2027	5	20
Paving	5/29/2027	6/25/2027	5	20

Phase 3 - CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	300	0	248	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	4960
Site Preparation	18	0	180	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1944	0	0
Grading	15	0	300	0	1,165	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	23300
Trenching	5	0	100	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1080	0	0
Building Construction	557	118	128110	27140	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1383588	198122	0
Architectural Coating	111	0	2220	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	23976	0	0
Paving	15	0	300	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	3240	0	0

Number of Days Per Year					
2028	3/1/28	12/31/28	306	219	
2029	1/1/29	6/19/29	170	122	
			476	**341**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	3/1/2028	3/28/2028	5	20
Site Preparation	3/29/2028	4/11/2028	5	10
Grading	4/12/2028	5/9/2028	5	20
Trenching	5/10/2028	6/6/2028	5	20
Building Construction	6/7/2028	4/24/2029	5	230
Architectural Coating	4/25/2029	5/22/2029	5	20
Paving	5/23/2029	6/19/2029	5	20

Category		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PM BW	PM10_PM TW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PM BW	PM25_PM TW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX	CH4_IDLEX	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
																														19	22	23	8	9	10						
Hauling	HHDT	100.0	1	0.000832758	0.00023717	0.291216194	0	0.03491802	0.00190199	3.61673E-06	4.1163337	2.793411545	2.656554716	4.661976	1.68143516	0.034405	0.00669719	0.016055594	3.05339E-06		0.09482	0.034496	0.003512	0.024465	5.13937E-06		0.033187	0.008624	0.003355	0.0234003	4.725E-06	795.31338	1818.9514	0.3088597	0.278522	0.273724732	6.66723E-07	0.12938	0.291377186	7.62714E-07
	MHD	0.0	0	0.03051919	0.007887495	0.029383529	0	0.04982539	0.06453361	0.06357111	0.8935873	1.221180561	1.311223761	0.675976	0.47088772	1.402911	0.00141361	0.012188625	0.000107762	0.299	0.04553	0.012	0.002649	0.01575	0.000138602	0.04499	0.015936	0.003	0.002534	0.0150568	0.0001274	152.14107	1279.4656	10.90044	0.013936	0.011071061	0.011534028	0.02322	0.149680874	0.008090783
Vendor	HHDT	50.0	0.5	0.000416379	0.000118585	0.145608097	0	0.01745901	0.000951	1.80836E-06	2.0581668	1.396705773	1.328277358	2.330988	0.84071758	0.017203	0.0033486	0.008027797	1.5267E-06		0.04741	0.017248	0.001756	0.012233	2.56968E-06		0.016594	0.004312	0.001678	0.0117001	2.363E-06	397.65669	909.4757	0.1544299	0.139261	0.136862366	3.33362E-07	0.06469	0.145688593	3.81357E-07
	MHD	50.0	0.5	0.015259595	0.003943748	0.014691764	0	0.0249127	0.03226681	0.031785555	0.4467937	0.610590281	0.655611881	0.337988	0.23544386	0.701455	0.0007068	0.006094313	5.3881E-05		0.022765	0.006	0.001324	0.007875	6.9301E-05		0.007968	0.0015	0.001267	0.0075284	6.372E-05	76.070533	639.73279	5.4502202	0.006968	0.005535531	0.005767014	0.01161	0.074840437	0.004045392
			1	0.015675974	0.004062333	0.160299862	0	0.04237171	0.0332178	0.031787364	2.5049605	2.007296053	1.983889239	2.668976	1.07616144	0.718658	0.0040554	0.01412211	5.54077E-05	0.299	0.070175	0.023248	0.003081	0.020108	7.18707E-05	0.04499	0.024561	0.005812	0.002945	0.0192285	6.608E-05	473.72723	1549.2085	5.6046501	0.146229	0.142397897	0.005767347	0.0763	0.22052903	0.004045773
Worker	LDA	50.0	0.5	0.129206652	0.039985232	0	0	0.00401678	0.10136081	0.157270124	0	0.019222942	0.119716462	0	0.30643448	1.558757	0	0.001253251	0.000325608		0.003224	0.004	0	0.00061	0.001029291		0.001128	0.001	0	0.0005616	0.0009464	0	126.7813	32.93625	0	0.001021019	0.033446372	0	0.002070469	0.014933788
	LDT1	25.0	0.25	0.125369142	0.036230695	0	0	0.00604971	0.10361668	0.127940082	0	0.0289914	0.090757312	0	0.30293998	1.26776	0	0.00080221	0.00021114		0.002015	0.002	0	0.000455	0.000704237		0.000705	0.0005	0	0.0004185	0.0006475	0	81.146517	21.35743	0	0.001354993	0.024857794	0	0.002115428	0.009218839
	LDT2	25.0	0.25	0.051661055	0.01566904	0	0	0.00224773	0.03951285	0.085764841	0	0.013295462	0.073165193	0	0.17051969	0.857051	0	0.000827439	0.000210563		0.001924	0.002	0	0.000328	0.000523819		0.000673	0.0005	0	0.0003014	0.0004816	0	83.710249	21.299042	0	0.000582044	0.018700907	0	0.001263039	0.008561651
			1	0.306236849	0.091884967	0	0	0.01231422	0.24449034	0.370975047	0	0.061509803	0.283638967	0	0.77989415	3.683569	0	0.0028829	0.000747311	0.299	0.007163	0.008	0	0.001393	0.002257347	0.04499	0.002507	0.002	0	0.0012815	0.0020756	0	291.63806	75.592722	0	0.002958057	0.077005072	0	0.005448937	0.032714277

		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PM BW	PM10_PM TW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PM BW	PM25_PM TW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX	CH4_IDLEX	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
Category																																								
Hauling	HHDT	100.0	1	0.000735629	0.0002143	0.289107062	0	0.03308255	0.00167583	2.99673E-06	4.0309825	2.648858391	2.710139555	4.671825	1.66997089	0.028436	0.0065497	0.015707489	2.91543E-06		0.094475	0.0345	0.003246	0.023911	4.76825E-06		0.033066	0.008625	0.003101	0.0228698	4.384E-06	782.38627	1785.756	0.2949039	0.273685	0.263624567	5.52E-07	0.127466	0.28637223	5.9511E-07
	MHD	0.0	0	0.027934547	0.007144825	0.028334211	0	0.04226372	0.05862263	0.060489811	0.855124	1.102696862	1.316728561	0.673867	0.39507163	1.330658	0.00139276	0.012069082	0.000106352	0.299	0.045445	0.012	0.002203	0.013581	0.000135258	0.04499	0.015906	0.003	0.002107	0.0129821	0.0001244	150.10421	1267.2529	10.757827	0.01434	0.010587194	0.011145322	0.022912	0.14749592	0.008186715
Vendor	HHDT	50.0	0.5	0.000367814	0.00010715	0.144553531	0	0.01654128	0.00083791	1.49836E-06	2.0154912	1.324429196	1.355069777	2.335913	0.83498544	0.014218	0.00327485	0.007853745	1.45771E-06		0.047238	0.01725	0.001623	0.011955	2.38412E-06		0.016533	0.004313	0.00155	0.0114349	2.192E-06	391.19314	892.87798	0.1474519	0.136843	0.131812283	2.76E-07	0.063733	0.143186115	2.97555E-07
	MHD	50.0	0.5	0.013967273	0.003572412	0.014167106	0	0.02113186	0.02931132	0.030244906	0.427562	0.551348431	0.65836428	0.336933	0.19753581	0.665329	0.00069638	0.006034541	5.3176E-05		0.022722	0.006	0.001101	0.006791	6.76291E-05		0.007953	0.0015	0.001053	0.006491	6.218E-05	75.052105	633.62644	5.3789135	0.00717	0.005293597	0.005572661	0.011456	0.07374796	0.004093358
			1	0.014335088	0.003679562	0.158720637	0	0.03767314	0.03014923	0.030246404	2.4430532	1.875777627	2.013434058	2.672846	1.03252126	0.679547	0.00397123	0.013888286	5.46337E-05	0.299	0.06996	0.02325	0.002724	0.018746	7.00132E-05	0.04499	0.024486	0.005813	0.002604	0.0179259	6.437E-05	466.24524	1526.5044	5.5263654	0.144013	0.137105881	0.005572937	0.075189	0.216934075	0.004093655
Worker	LDA	50.0	0.5	0.123761745	0.038035005	0	0	0.00351178	0.09654389	0.145618122	0	0.017073361	0.113126656	0	0.28527149	1.458859	0	0.001219369	0.000317219		0.003212	0.004	0	0.000582	0.000989441		0.001124	0.001	0	0.0005358	0.0009098	0	123.35283	32.087645	0	0.000908058	0.031238395	0	0.001918086	0.014356104
	LDT1	25.0	0.25	0.115347333	0.033293769	0	0	0.00520659	0.09408672	0.115622975	0	0.025154353	0.083993562	0	0.2726321	1.154339	0	0.000786692	0.000205665		0.002009	0.002	0	0.000421	0.0006584		0.000703	0.0005	0	0.0003871	0.0006054	0	79.576762	20.803603	0	0.001177055	0.022760918	0	0.001896762	0.008818628
	LDT2	25.0	0.25	0.048590616	0.014599592	0	0	0.00200717	0.03700731	0.07913405	0	0.01172248	0.067682189	0	0.15954604	0.801734	0	0.000809213	0.000205233		0.001923	0.002	0	0.000313	0.00050435		0.000673	0.0005	0	0.0002875	0.0004637	0	81.866393	20.759911	0	0.000527602	0.017426847	0	0.001173318	0.008173236
			1	0.287699694	0.085928367	0	0	0.01072554	0.22763793	0.340375147	0	0.053950194	0.264802408	0	0.71744963	3.414932	0	0.002815274	0.000728117	0.299	0.007144	0.008	0	0.001315	0.00215219	0.04499	0.0025	0.002	0	0.0012104	0.0019789	0	284.79599	73.651159	0	0.002612715	0.071426159	0	0.004988167	0.031347968

		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PM BW	PM10_PM TW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PM BW	PM25_PM TW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX	CH4_IDLEX	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
Category																														19	22	23	8	9	10						
Hauling	HHDT	100.0	1	0.000499446	0.000153777	0.284254533	0	0.02934331	0.00111679	2.80939E-06	3.8693428	2.36722241	2.76213714	4.672583	1.62073339	0.024543	0.00624192	0.014891114	2.64618E-06		0.09415	0.034513	0.002809	0.022858	3.61771E-06		0.032952	0.008628	0.002681	0.0218629	3.326E-06	754.992	1706.4168	0.2676691	0.260571	0.237798538	5.18139E-07	0.123387	0.274308294	5.2547E-07
	MHD	0.0	0	0.022859421	0.005794651	0.02642354	0	0.03001755	0.04784802	0.054983211	0.7839668	0.882726132	1.290686431	0.667039	0.28397696	1.197364	0.00134139	0.011724627	0.000102769	0.299	0.045111	0.012	0.001468	0.009898	0.000128847	0.04499	0.015789	0.003	0.001404	0.0094581	0.0001185	145.04659	1231.9839	10.395413	0.015174	0.010112756	0.01039802	0.022142	0.142284299	0.007949301
Vendor	HHDT	50.0	0.5	0.000249723	7.68886E-05	0.142127267	0	0.01467166	0.0005584	1.40469E-06	1.9346714	1.183611205	1.38106857	2.336292	0.8103667	0.012271	0.00312096	0.007445557	1.32309E-06		0.047075	0.017256	0.001404	0.011429	1.80886E-06		0.016476	0.004314	0.001341	0.0109314	1.663E-06	377.496	853.20838	0.1338345	0.130285	0.118899269	2.59069E-07	0.061693	0.137154147	2.62735E-07
	MHD	50.0	0.5	0.011429711	0.002897325	0.01321177	0	0.01500878	0.02392401	0.027491606	0.3919834	0.441363066	0.645343216	0.33352	0.14198848	0.598682	0.00067069	0.005862314	5.13846E-05		0.022555	0.006	0.000734	0.004949	6.44237E-05		0.007894	0.0015	0.000702	0.004729	5.924E-05	72.523297	615.99195	5.1977067	0.007587	0.005056378	0.00519901	0.011071	0.07114215	0.00397465
			1	0.011679434	0.002974214	0.155339037	0	0.02968043	0.02448241	0.02749301	2.3266548	1.624974271	2.026411786	2.669811	0.95235518	0.610953	0.00379165	0.013307871	5.27077E-05	0.299	0.06963	0.023256	0.002139	0.016378	6.62325E-05	0.04499	0.024371	0.005814	0.002043	0.0156605	6.09E-05	450.0193	1469.2003	5.3315413	0.137872	0.123955647	0.005199269	0.072764	0.208296297	0.003974913
Worker	LDA	50.0	0.5	0.11558127	0.034779687	0	0	0.00275975	0.08993179	0.125692501	0	0.014000985	0.101947204	0	0.25243203	1.290063	0	0.001159687	0.000301802		0.003194	0.004	0	0.000529	0.000920321		0.001118	0.001	0	0.0004868	0.0008462	0	117.31374	30.528189	0	0.000735149	0.027285043	0	0.001693212	0.013257145
	LDT1	25.0	0.25	0.096969423	0.028163264	0	0	0.00389821	0.07797656	0.094914254	0	0.019300791	0.072719834	0	0.22522766	0.966536	0	0.000755841	0.000195421		0.002001	0.002	0	0.000364	0.000581665		0.0007	0.0005	0	0.0003351	0.0005348	0	76.455963	19.767437	0	0.000899067	0.019144791	0	0.001559592	0.008086364
	LDT2	25.0	0.25	0.044671865	0.01311432	0	0	0.0016581	0.03408706	0.068582398	0	0.009638326	0.060203781	0	0.14418724	0.71353	0	0.000776616	0.000195898		0.001927	0.002	0	0.000285	0.000468551		0.000675	0.0005	0	0.0002626	0.0004308	0	78.568491	19.815623	0	0.000447133	0.015331481	0	0.001050645	0.0076012
			1	0.257222558	0.076057271	0	0	0.00831605	0.20199541	0.289189153	0	0.042940102	0.234870819	0	0.62184693	2.970129	0	0.002692144	0.000693121	0.299	0.007122	0.008	0	0.001179	0.001970538	0.04499	0.002493	0.002	0	0.0010845	0.0018118	0	272.33819	70.111248	0	0.002081349	0.061761315	0	0.004303449	0.028944709

Category		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PM BW	PM10_PM TW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PM BW	PM25_PM TW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX	CH4_IDLEX	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
																														19	22	23	8	9	10						
Hauling	HHDT	100.0	1	0.000520718	0.000152076	0.281632945	0	0.02764689	0.00112898	2.57666E-06	3.7938404	2.240939361	2.760344155	4.661221	1.5858921	0.023962	0.00608905	0.014459501	2.54534E-06		0.094161	0.03452	0.002631	0.022406	3.3757E-06		0.032956	0.00863	0.002512	0.0214305	3.104E-06	740.49904	1663.0991	0.2574683	0.252707	0.224278652	4.75399E-07	0.12118	0.267662523	4.76534E-07
	MHD	0.0	0	0.02134611	0.005297532	0.025604066	0	0.02533798	0.04421076	0.052599073	0.7518236	0.787439231	1.267043085	0.661803	0.2437766	1.138925	0.00131189	0.011506189	0.000100899	0.299	0.044848	0.012	0.00119	0.008455	0.000126197	0.04499	0.015697	0.003	0.001138	0.0080774	0.000116	142.09544	1209.511	10.206215	0.015527	0.009998085	0.010069696	0.021692	0.1393344	0.007823664
Vendor	HHDT	50.0	0.5	0.000260359	7.60382E-05	0.140816472	0	0.01382344	0.00056449	1.28833E-06	1.8969202	1.12046968	1.380172077	2.330611	0.79294605	0.011981	0.00304452	0.007229751	1.27267E-06		0.04708	0.01726	0.001316	0.011203	1.68785E-06		0.016478	0.004315	0.001256	0.0107152	1.552E-06	370.24952	831.54957	0.1287342	0.126353	0.112139326	2.37699E-07	0.06059	0.133831261	2.38267E-07
	MHD	50.0	0.5	0.010673055	0.002648766	0.012802033	0	0.01266899	0.02210538	0.026299537	0.3759118	0.393719616	0.633521542	0.330901	0.1218883	0.569462	0.00065594	0.005753094	5.04494E-05		0.022424	0.006	0.000595	0.004227	6.30983E-05		0.007848	0.0015	0.000569	0.0040387	5.802E-05	71.047718	604.75548	5.1031073	0.007763	0.004990043	0.005034848	0.010846	0.0696672	0.003911832
			1	0.010933414	0.002724804	0.153618505	0	0.02649243	0.02266987	0.026300825	2.272832	1.514189296	2.01369362	2.661512	0.91483435	0.581443	0.00370047	0.012982845	5.17221E-05	0.299	0.069504	0.02326	0.00191	0.01543	6.47861E-05	0.04499	0.024327	0.005815	0.001825	0.0147539	5.957E-05	441.29724	1436.3051	5.2318415	0.134117	0.117138368	0.005035085	0.071436	0.203498462	0.00391207
Worker	LDA	50.0	0.5	0.113643102	0.033467245	0	0	0.00249153	0.08836975	0.117802743	0	0.012928796	0.097780793	0	0.24043819	1.222646	0	0.001136404	0.000295274		0.003189	0.004	0	0.000495	0.000874702		0.001116	0.001	0	0.0004557	0.0008043	0	114.95775	29.86786	0	0.000674103	0.025716039	0	0.001613848	0.012844909
	LDT1	25.0	0.25	0.09084528	0.02603001	0	0	0.00339078	0.0722746	0.08655402	0	0.017022799	0.068283998	0	0.20671919	0.890541	0	0.000741711	0.000190886		0.001998	0.002	0	0.000334	0.000544964		0.000699	0.0005	0	0.0003068	0.0005011	0	75.026342	19.308641	0	0.000792139	0.017673673	0	0.001428718	0.007794191
	LDT2	25.0	0.25	0.043008531	0.012511544	0	0	0.0015357	0.03285168	0.064606296	0	0.008921159	0.057743785	0	0.13927545	0.682053	0	0.000763079	0.000192081		0.001931	0.002	0	0.000269	0.000445745		0.000676	0.0005	0	0.0002476	0.0004098	0	77.198926	19.429522	0	0.000419167	0.014536701	0	0.00100771	0.00741495
			1	0.247496913	0.072008799	0	0	0.00741801	0.19349603	0.26896306	0	0.038872753	0.223808575	0	0.58643283	2.795239	0	0.002641194	0.00067824	0.299	0.007117	0.008	0	0.001098	0.001865411	0.04499	0.002491	0.002	0	0.0010101	0.0017152	0	267.18302	68.606023	0	0.001885409	0.057926413	0	0.004050277	0.02805405

Category		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PM BW	PM10_PM TW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PM BW	PM25_PM TW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX	CH4_IDLEX	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
																														19	22	23	8	9	10						
Hauling	HHDT	100.0	1	0.00044088	0.000128569	0.27865587	0	0.02601068	0.00093054	2.26167E-06	3.7179199	2.116091531	2.730957724	4.640026	1.54662938	0.020744	0.00593025	0.013993365	2.37145E-06		0.09401	0.034527	0.002463	0.021913	2.98369E-06		0.032904	0.008632	0.002351	0.0209585	2.743E-06	724.84987	1615.2738	0.2398793	0.244589	0.210385046	4.17389E-07	0.118766	0.260264408	2.33716E-07
	MHD	0.0	0	0.019599483	0.004792664	0.024823659	0	0.02150308	0.04027224	0.050364986	0.7207239	0.702639795	1.22261403	0.653726	0.21094125	1.082402	0.00127774	0.011226509	9.87645E-05	0.299	0.044459	0.012	0.000967	0.007258	0.000123403	0.04499	0.015561	0.003	0.000925	0.0069322	0.0001135	138.61878	1180.5856	9.9903197	0.015771	0.009888639	0.009749178	0.021161	0.135730881	0.007494122
Vendor	HHDT	50.0	0.5	0.00022044	6.42846E-05	0.139327935	0	0.01300534	0.00046527	1.13083E-06	1.8589599	1.058045766	1.365478862	2.320013	0.77331469	0.010372	0.00296513	0.006996682	1.18573E-06		0.047005	0.017263	0.001232	0.010956	1.49185E-06		0.016452	0.004316	0.001175	0.0104793	1.372E-06	362.42494	807.6369	0.1199397	0.122295	0.105192523	2.08695E-07	0.059383	0.130132204	1.16858E-07
	MHD	50.0	0.5	0.009799742	0.002396332	0.01241183	0	0.01075154	0.02013612	0.025182493	0.360362	0.351319897	0.611307015	0.326863	0.10547063	0.541201	0.00063887	0.005613255	4.93822E-05		0.02223	0.006	0.000484	0.003629	6.17017E-05		0.00778	0.0015	0.000462	0.0034661	5.673E-05	69.309392	590.29279	4.9951599	0.007886	0.00494432	0.004874589	0.01058	0.06786544	0.003747061
			1	0.010020182	0.002460617	0.151739765	0	0.02375688	0.02060139	0.025183624	2.2193219	1.409365663	1.976785877	2.646876	0.87878532	0.551573	0.003604	0.012609937	5.0568E-05	0.299	0.069235	0.023263	0.001715	0.014585	6.31935E-05	0.04499	0.024232	0.005816	0.001638	0.0139454	5.81E-05	431.73433	1397.9297	5.1150995	0.13018	0.110136843	0.004874798	0.069963	0.197997645	0.003747178
Worker	LDA	50.0	0.5	0.110975043	0.031985599	0	0	0.002269	0.08621397	0.110717011	0	0.012055436	0.094189176	0	0.23031775	1.162434	0	0.00111516	0.000289266		0.003183	0.004	0	0.000459	0.000823099		0.001114	0.001	0	0.0004221	0.0007568	0	112.80799	29.260133	0	0.000623483	0.02430646	0	0.001547324	0.012483574
	LDT1	25.0	0.25	0.087226742	0.024335111	0	0	0.00296622	0.06883674	0.079193042	0	0.015014229	0.064340378	0	0.19105599	0.823462	0	0.00072856	0.000186723		0.001995	0.002	0	0.000307	0.000508059		0.000698	0.0005	0	0.0002824	0.0004671	0	73.715872	18.887622	0	0.000702012	0.016373472	0	0.001314849	0.007536487
	LDT2	25.0	0.25	0.041458468	0.011925273	0	0	0.00143547	0.03169264	0.061225444	0	0.008340904	0.055862489	0	0.13550538	0.65598	0	0.00075111	0.000188757		0.001934	0.002	0	0.000251	0.000420356		0.000677	0.0005	0	0.0002312	0.0003865	0	76.009007	19.093329	0	0.00039639	0.013857525	0	0.000972448	0.007271751
			1	0.239660253	0.068245983	0	0	0.00667069	0.18674335	0.251135497	0	0.03541057	0.214392043	0	0.55687912	2.641876	0	0.00259523	0.000664747	0.299	0.007113	0.008	0	0.001017	0.001751514	0.04499	0.00249	0.002	0	0.0009357	0.0016105	0	262.53287	67.241084	0	0.001721885	0.054537457	0	0.003834621	0.027291812

Category		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PM BW	PM10_PM TW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PM BW	PM25_PM TW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX	CH4_IDLEX	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
																														19	22	23	8	9	10						
Hauling	HHDT	100.0	1	0.000313481	8.92344E-05	0.275477137	0	0.02438508	0.00059258	1.95594E-06	3.6436539	2.00075762	2.688653895	4.610662	1.49871342	0.01874	0.00577296	0.01352429	2.14769E-06		0.093735	0.034533	0.002319	0.021419	2.2664E-06		0.032807	0.008633	0.002213	0.0204864	2.084E-06	708.8954	1566.1781	0.217245	0.237338	0.197118967	3.61033E-07	0.116283	0.252613951	1.94267E-07
	MHD	0.0	0	0.017727844	0.004300368	0.024031842	0	0.0182807	0.03616936	0.048195238	0.6897143	0.625365253	1.169510522	0.642653	0.18357147	1.026668	0.00123863	0.010883913	9.63158E-05	0.299	0.043941	0.012	0.000785	0.006242	0.000120501	0.04499	0.015379	0.003	0.00075	0.0059603	0.0001108	134.58954	1145.0344	9.7426331	0.015926	0.009764224	0.009424678	0.020545	0.131483111	0.007181551
Vendor	HHDT	50.0	0.5	0.00015674	4.46172E-05	0.137738568	0	0.01219254	0.00029629	9.77972E-07	1.821827	1.00037881	1.344326948	2.305331	0.74935671	0.00937	0.00288648	0.006762145	1.07384E-06		0.046867	0.017267	0.00116	0.01071	1.1332E-06		0.016404	0.004317	0.001106	0.0102432	1.042E-06	354.4477	783.08904	0.1086225	0.118669	0.098559484	1.80516E-07	0.058141	0.126306976	9.71336E-08
	MHD	50.0	0.5	0.008863922	0.002150184	0.012015921	0	0.00914035	0.01808468	0.024097619	0.3448572	0.312682627	0.584755261	0.321327	0.09178574	0.513334	0.00061932	0.005441957	4.81579E-05		0.021971	0.006	0.000392	0.003121	6.02507E-05		0.00769	0.0015	0.000375	0.0029802	5.54E-05	67.294772	572.51719	4.8713165	0.007963	0.004882112	0.004712339	0.010272	0.065741556	0.003590775
			1	0.009020662	0.002194801	0.149754489	0	0.02133289	0.01838097	0.024098597	2.1666841	1.313061437	1.929082208	2.626658	0.84114245	0.522704	0.0035058	0.012204102	4.92318E-05	0.299	0.068838	0.023267	0.001552	0.01383	6.13839E-05	0.04499	0.024093	0.005817	0.001481	0.0132234	5.64E-05	421.74247	1355.6062	4.979939	0.126632	0.103441596	0.00471252	0.068414	0.192048531	0.003590873
Worker	LDA	50.0	0.5	0.10700327	0.030402841	0	0	0.00208319	0.08290578	0.104398868	0	0.011342379	0.091078536	0	0.22176732	1.109489	0	0.001095851	0.000283761		0.003178	0.004	0	0.000428	0.000777875		0.001112	0.001	0	0.0003935	0.0007152	0	110.8541	28.703259	0	0.000581175	0.023039816	0	0.001491627	0.012163809
	LDT1	25.0	0.25	0.082024258	0.022417212	0	0	0.00256891	0.06409015	0.072443627	0	0.013094119	0.060772513	0	0.17631822	0.760679	0	0.000716724	0.000182827		0.001993	0.002	0	0.000282	0.000472301		0.000698	0.0005	0	0.000259	0.0004343	0	72.498784	18.493526	0	0.000618567	0.015187304	0	0.001208701	0.0073083
	LDT2	25.0	0.25	0.039768926	0.011400213	0	0	0.00135268	0.03042547	0.058314149	0	0.007867126	0.054410319	0	0.132598	0.634227	0	0.000740987	0.000185836		0.001938	0.002	0	0.000235	0.000396616		0.000678	0.0005	0	0.0002163	0.0003647	0	74.963841	18.797842	0	0.000377689	0.013269859	0	0.000943099	0.007160177
			1	0.228796453	0.064220265	0	0	0.00600478	0.17742139	0.235156645	0	0.032303624	0.206261368	0	0.53068354	2.504396	0	0.002553562	0.000652424	0.299	0.007109	0.008	0	0.000945	0.001646792	0.04499	0.002488	0.002	0	0.0008689	0.0015142	0	258.31673	65.994627	0	0.001577431	0.051496979	0	0.003643427	0.026632286

CalEEMod EMFAC2021 Emission Factors Input — Year 2022

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005843	0.003613	0.014892	0.260799534	0.008159	0	0	0.08628	0
A	CH4_RUNEX	0.002319	0.006287	0.002602	0.003201	0.007384	0.006718	0.012528	0.279686949	0.008252	0.161010459	0.159449	0.085895	0.013708
A	CH4_STREX	0.071825	0.108853	0.080541	0.095514	0.024032	0.014498	0.011865	6.77534E-07	0.01134	0.007774918	0.191389	0.007998	0.027902
A	CO_IDLEX	0	0	0	0	0.205796	0.152528	0.654892	4.440944093	0.463936	0	0	2.073163	0
A	CO_RUNEX	0.663679	1.363814	0.738234	0.802887	0.87107	0.575388	0.595575	1.692340791	0.306637	2.059527265	12.33015	1.812081	1.518033
A	CO_STREX	3.345366	5.605019	3.681168	3.95481	2.432982	1.458578	1.477853	0.034745524	1.180982	0.826814725	7.963377	1.184587	2.749322
A	CO2_NBIO_IDLEX	0	0	0	0	8.646179	13.35354	157.1739	817.5579223	92.23189	0	0	206.7122	0
A	CO2_NBIO_RUNEX	260.5462	330.8812	343.0122	412.1841	802.8379	845.4343	1289.87	1847.097548	1344.381	1395.583774	188.692	1021.106	1675.54
A	CO2_NBIO_STREX	67.64899	87.78807	87.57845	104.6639	20.18243	11.54073	11.00803	0.314163972	10.26522	5.758558013	50.07102	5.489121	23.04082
A	NOX_IDLEX	0	0	0	0	0.04149	0.082396	1.013523	4.433588742	0.427804	0	0	1.577129	0
A	NOX_RUNEX	0.04387	0.134644	0.061774	0.080621	0.556519	0.729856	1.587068	3.256305124	0.937984	2.453214755	0.563376	3.319508	1.392781
A	NOX_STREX	0.254825	0.393724	0.320782	0.395298	0.465797	0.284748	1.203563	2.389547531	1.064922	0.082629307	0.148145	0.436452	0.288521
A	PM10_IDLEX	0	0	0	0	0.000583	0.001242	0.003193	0.00382705	0.000258	0	0	0.001868	0
A	PM10_PMBW	0.006473	0.008092	0.007714	0.007763	0.078	0.091	0.045537	0.095966343	0.048875	0.108503795	0.012	0.045856	0.044944
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009205	0.010503	0.012	0.034489957	0.012	0.029362212	0.004	0.010401	0.013263
A	PM10_RUNEX	0.001284	0.001981	0.001387	0.001452	0.011044	0.017883	0.019459	0.025838358	0.009244	0.006841902	0.002007	0.015063	0.022185
A	PM10_STREX	0.002148	0.003033	0.002192	0.002343	0.000226	0.000124	0.000144	5.80933E-06	0.000103	1.53331E-05	0.00407	7.3E-05	0.000366
A	PM25_IDLEX	0	0	0	0	0.000558	0.001188	0.003055	0.0036571	0.000247	0	0	0.001786	0
A	PM25_PMBW	0.002266	0.002832	0.0027	0.002717	0.0273	0.03185	0.015938	0.03358822	0.017106	0.037976328	0.0042	0.01605	0.01573
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002301	0.002626	0.003	0.008622489	0.003	0.007340553	0.001	0.0026	0.003316
A	PM25_RUNEX	0.001182	0.001823	0.001276	0.001338	0.010525	0.017087	0.018606	0.024714035	0.008837	0.006541322	0.00188	0.014384	0.021174
A	PM25_STREX	0.001975	0.002789	0.002016	0.002154	0.000208	0.000114	0.000133	5.34147E-06	9.43E-05	1.40982E-05	0.003836	6.72E-05	0.000336
A	ROG_DIURN	0.26835	0.541709	0.221107	0.258579	0.106699	0.067526	0.033927	0.000990911	0.031466	0.020632524	3.591267	0.04821	30.99292
A	ROG_HTSK	0.083501	0.156968	0.067318	0.076201	0.029577	0.018923	0.008815	0.000277007	0.008914	0.008235262	3.559039	0.013387	9.081418
A	ROG_IDLEX	0	0	0	0	0.023151	0.017296	0.030931	0.292803386	0.033214	0	0	0.240147	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.009286	0.028352	0.010231	0.013474	0.073796	0.101087	0.067756	0.047888834	0.033424	0.1357341	1.054922	0.095821	0.086389
A	ROG_RUNLS	0.211767	0.454429	0.169917	0.203112	0.157593	0.099695	0.072571	0.00228653	0.037539	0.013372663	3.722371	0.038841	0.212214
A	ROG_STREX	0.341077	0.56784	0.37384	0.477508	0.117993	0.071836	0.06656	3.67766E-06	0.056012	0.030119815	1.43267	0.046513	0.121931
A	SO2_IDLEX	0	0	0	0	8.44E-05	0.000128	0.00146	0.006976097	0.000867	0	0	0.001897	0
A	SO2_RUNEX	0.002576	0.003271	0.003391	0.004072	0.007858	0.008163	0.012283	0.016379507	0.012786	0.012831163	0.001865	0.009573	0.016424
A	SO2_STREX	0.000669	0.000868	0.000866	0.001035	0.0002	0.000114	0.000109	3.10583E-06	0.000101	5.69292E-05	0.000495	5.43E-05	0.000228
A	TOG_DIURN	0.26835	0.541709	0.221107	0.258579	0.106699	0.067526	0.033927	0.000990911	0.031466	0.020632524	0.079785	0.04821	30.99292
A	TOG_HTSK	0.083501	0.156968	0.067318	0.076201	0.029577	0.018923	0.008815	0.000277007	0.008914	0.008235262	3.559039	0.013387	9.081418
A	TOG_IDLEX	0	0	0	0	0.033059	0.023687	0.050034	0.581792813	0.045587	0	0	0.379854	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.013526	0.041328	0.014909	0.019588	0.092109	0.11899	0.089867	0.333972521	0.046122	0.310020775	1.259821	0.199994	0.11607
A	TOG_RUNLS	0.211767	0.454429	0.169917	0.203112	0.157593	0.099695	0.072571	0.00228653	0.037539	0.013372663	3.722371	0.038841	0.212214
A	TOG_STREX	0.373434	0.621711	0.409307	0.522807	0.129188	0.078652	0.072875	4.02657E-06	0.061326	0.032977406	1.557156	0.050926	0.133499
A	N2O_IDLEX	0	0	0	0	0.000579	0.001539	0.02402	0.13255086	0.013678	0	0	0.025995	0
A	N2O_RUNEX	0.004517	0.009516	0.005538	0.007173	0.036138	0.078716	0.152285	0.295493031	0.166825	0.202933551	0.038859	0.124283	0.072767
A	N2O_STREX	0.031132	0.03862	0.036088	0.038726	0.038447	0.022541	0.007862	7.71952E-07	0.010804	0.010808291	0.008671	0.004857	0.029453

CalEEMod EMFAC2021 Emission Factors Input — Year 2030

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.0041	0.002311	0.015963	0.229026242	0.006914	0	0	0.110559	0
A	CH4_RUNEX	0.001091	0.002215	0.001451	0.001466	0.00289	0.003582	0.009624	0.18305022	0.010248	0.641431362	0.129549	0.072674	0.004817
A	CH4_STREX	0.043749	0.056722	0.051039	0.052888	0.014423	0.007552	0.009135	3.05733E-07	0.008239	0.004511552	0.143907	0.008986	0.021494
A	CO_IDLEX	0	0	0	0	0.183464	0.137123	0.628743	4.574443284	0.49944	0	0	2.802822	0
A	CO_RUNEX	0.428969	0.660194	0.521738	0.516941	0.468992	0.321574	0.163527	1.442396346	0.162707	7.377393404	9.714966	0.912101	0.258927
A	CO_STREX	2.12334	2.838305	2.46486	2.462348	2.160461	1.186135	0.977377	0.016590448	0.832894	0.828623357	7.581403	1.218105	1.853708
A	CO2_NBIO_IDLEX	0	0	0	0	7.483418	12.87527	130.0816	692.3906648	88.86546	0	0	200.5332	0
A	CO2_NBIO_RUNEX	218.1367	285.5306	296.1322	352.6558	647.7805	684.09	1103.524	1514.609777	1192.98	954.9035774	185.2558	857.525	1657.153
A	CO2_NBIO_STREX	56.37559	72.5759	74.14137	87.76861	16.36469	8.635527	9.478708	0.198459779	7.623425	5.222861474	39.68002	6.586443	19.91475
A	NOX_IDLEX	0	0	0	0	0.027637	0.059703	0.658867	3.566245811	0.336592	0	0	1.035723	0
A	NOX_RUNEX	0.021508	0.04649	0.029936	0.03068	0.181449	0.284207	0.558221	1.874181967	0.646065	0.210138516	0.471636	1.45062	0.995886
A	NOX_STREX	0.176589	0.231426	0.213197	0.224713	0.2977	0.159643	1.115695	2.649753409	1.022028	0.043221096	0.087961	0.50246	0.254132
A	PM10_IDLEX	0	0	0	0	0.000617	0.001429	0.000636	0.00208163	0.000207	0	0	0.000758	0
A	PM10_PMBW	0.006346	0.007963	0.007767	0.007787	0.074001	0.086134	0.043306	0.093281284	0.048975	0.156110891	0.012	0.043175	0.04494
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009264	0.01047	0.012	0.034539384	0.012	0.061827696	0.004	0.009879	0.013342
A	PM10_RUNEX	0.0008	0.001038	0.000883	0.000858	0.006648	0.01245	0.005391	0.020667549	0.00762	0.003949707	0.002069	0.007092	0.011597
A	PM10_STREX	0.001471	0.001765	0.001499	0.001469	0.000104	4.97E-05	0.000118	1.82388E-06	8.4E-05	2.48573E-05	0.003639	9.36E-05	0.000248
A	PM25_IDLEX	0	0	0	0	0.00059	0.001367	0.000608	0.001985313	0.000198	0	0	0.000723	0
A	PM25_PMBW	0.002221	0.002787	0.002718	0.002725	0.0259	0.030147	0.015157	0.032648449	0.017141	0.054638812	0.0042	0.015111	0.015729
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002316	0.002617	0.003	0.008634846	0.003	0.015456924	0.001	0.00247	0.003336
A	PM25_RUNEX	0.000736	0.000955	0.000812	0.00079	0.006331	0.011898	0.005147	0.019767546	0.007285	0.003772866	0.00193	0.006762	0.011058
A	PM25_STREX	0.001353	0.001623	0.001378	0.001351	9.57E-05	4.57E-05	0.000109	1.67699E-06	7.72E-05	2.28554E-05	0.003402	8.61E-05	0.000228
A	ROG_DIURN	0.208006	0.310821	0.155511	0.165232	0.056781	0.034294	0.016264	0.000235524	0.029304	0.012421079	2.694632	0.052216	10.81642
A	ROG_HTSK	0.057819	0.083701	0.043823	0.045503	0.014537	0.008339	0.00391	6.49199E-05	0.00656	0.003424597	3.535952	0.011692	2.824213
A	ROG_IDLEX	0	0	0	0	0.016598	0.012899	0.023221	0.271787437	0.032176	0	0	0.326882	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.003852	0.009047	0.005145	0.005303	0.037462	0.06705	0.015705	0.022524009	0.017791	0.045171786	0.790266	0.045956	0.038893
A	ROG_RUNLS	0.160749	0.241641	0.119083	0.126689	0.083346	0.048385	0.033035	0.000391321	0.033896	0.013537374	3.670486	0.037896	0.068402
A	ROG_STREX	0.197071	0.267146	0.223211	0.238678	0.067869	0.035586	0.046415	1.65627E-06	0.04121	0.01608249	1.025021	0.051728	0.081937
A	SO2_IDLEX	0	0	0	0	7.29E-05	0.000123	0.001195	0.005616953	0.000834	0	0	0.001828	0
A	SO2_RUNEX	0.002156	0.002823	0.002927	0.003485	0.006325	0.006582	0.010485	0.013042303	0.011283	0.007230239	0.001831	0.008027	0.016233
A	SO2_STREX	0.000557	0.000717	0.000733	0.000868	0.000162	8.54E-05	9.37E-05	1.96198E-06	7.54E-05	5.16333E-05	0.000392	6.51E-05	0.000197
A	TOG_DIURN	0.208006	0.310821	0.155511	0.165232	0.056781	0.034294	0.016264	0.000235524	0.029304	0.012421079	0.066855	0.052216	10.81642
A	TOG_HTSK	0.057819	0.083701	0.043823	0.045503	0.014537	0.008339	0.00391	6.49199E-05	0.00656	0.003424597	3.535952	0.011692	2.824213
A	TOG_IDLEX	0	0	0	0	0.023432	0.017024	0.04258	0.526899253	0.043038	0	0	0.511291	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.005617	0.013201	0.007494	0.007717	0.044644	0.077093	0.027406	0.208786723	0.030062	0.693940204	0.977152	0.127141	0.047979
A	TOG_RUNLS	0.160749	0.241641	0.119083	0.126689	0.083346	0.048385	0.033035	0.000391321	0.033896	0.013537374	3.670486	0.037896	0.068402
A	TOG_STREX	0.215768	0.292491	0.244388	0.261323	0.074308	0.038963	0.050819	1.8134E-06	0.04512	0.017608302	1.115488	0.056636	0.08971
A	N2O_IDLEX	0	0	0	0	0.000532	0.001598	0.019855	0.113681015	0.013363	0	0	0.02289	0
A	N2O_RUNEX	0.002889	0.0045	0.003674	0.00417	0.032136	0.070442	0.126706	0.244505965	0.159364	0.142077729	0.035104	0.090896	0.066786
A	N2O_STREX	0.023753	0.02846	0.028293	0.028531	0.02612	0.013606	0.006893	1.7284E-07	0.007527	0.006837798	0.005584	0.006286	0.029442

CalEEMod EMFAC2021 Fleet Mix Input — Year 2022

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.49511	0.045708	0.246625	0.140491	0.026659	0.005444	0.009345	0.002714	0.002438	0.000828	0.022216	0.000437	0.001985

CalEEMod EMFAC2021 Fleet Mix Input — Year 2030

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
City Park	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Day-Care Center	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Enclosed Parking with Elev	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Parking Lot	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146
Regional Shopping Center	0.392609	0.040642	0.308969	0.177896	0.031644	0.007414	0.008262	0.002362	0.002204	0.000645	0.024811	0.000394	0.002146

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	4.2617898	0.000285593	607.5294962	0.0047046	85.26989029	0.005714
HHDT	DSL	1289.91652	0.086440417	118758.493	0.9196485	13886.58645	0.930574
HHDT	NG	144.16117	0.009660588	9768.638492	0.0756469	950.7523768	0.063712
		1438.33948		129134.661		14922.60872	
LDA	GAS	240666.369	0.195074096	7995565.274	0.9049151	1130996.552	0.916739
LDA	DSL	888.539544	0.000720213	22501.88241	0.0025467	3790.786225	0.003073
LDA	ELEC	14591.4002	0.011827179	568258.674	0.0643139	72996.66119	0.059168
LDA	PIH	6271.75784	0.005083625	249381.9388	0.0282243	25933.71866	0.021021
		262418.067		8835707.769		1233717.718	
LDT1	GAS	24136.4715	0.21948123	736196.1221	0.9959098	109571.0007	0.996367
LDT1	DSL	8.5109163	7.73927E-05	119.4981643	0.0001617	25.11455222	0.000228
LDT1	ELEC	61.9389336	0.000563232	2054.900362	0.0027798	294.1869901	0.002675
LDT1	PIH	19.40692	0.000176474	849.1338506	0.0011487	80.2476143	0.00073
		24226.3283		739219.6545		109970.5499	
LDT2	GAS	128775.807	0.205667205	4489208.027	0.9838326	617258.5205	0.985821
LDT2	DSL	498.917873	0.000796819	17455.09707	0.0038254	2406.11088	0.003843
LDT2	ELEC	502.691018	0.000802845	16536.34536	0.003624	2591.330313	0.004139
LDT2	PIH	938.535167	0.00149893	39780.12597	0.008718	3880.842917	0.006198
		130715.951		4562979.595		626136.8046	
LHDT1	GAS	10003.6359	0.04978468	379521.5095	0.6987051	149039.2696	0.741718
LHDT1	DSL	4125.9109	0.02053325	163656.8914	0.3012949	51898.7687	0.258282
		14129.5468	0.070317929	543178.4009		200938.0383	
LHDT2	GAS	1166.84822	0.029919826	41928.68684	0.3743417	17384.29982	0.445761
LHDT2	DSL	1718.36462	0.044061575	70077.76861	0.6256583	21614.86517	0.554239
		2885.21283	0.0739814	112006.4554		38999.16499	
MCY	GAS	11775.1099	0.022216369	70029.62441	1	23550.21981	1
MDV	GAS	72399.5382	0.20410696	2561532.19	0.9712511	344969.8969	0.97253
MDV	DSL	1048.14393	0.002954901	37479.45802	0.014211	5036.896387	0.0142
MDV	ELEC	497.627402	0.001402899	16375.41063	0.006209	2565.597653	0.007233
MDV	PIH	517.853675	0.00145992	21966.08081	0.0083288	2141.324947	0.006037
		74463.1632		2637353.14		354713.7159	
MH	GAS	751.648787	7.142650067	7043.92638	0.684234	75.19494466	0.714551
MH	DSL	300.389363	2.854492873	3250.689442	0.315766	30.03893632	0.285449
		1052.03815		10294.61582		105.233881	
MHDT	GAS	756.540128	0.011547711	44483.70455	0.201593	15136.85489	0.231047
MHDT	DSL	4156.0507	0.06343731	174303.9555	0.7899177	49995.68892	0.763126
MHDT	NG	40.6323968	0.000620207	1873.256596	0.0084893	381.7521353	0.005827
		4953.22322		220660.9167		65514.29594	
OBUS	GAS	256.192424	0.016780127	15869.04186	0.174875	5125.898027	0.335737
OBUS	DSL	1024.17987	0.067081874	74221.66603	0.8179139	10035.18859	0.657286
OBUS	NG	11.9688695	0.000783939	654.3713159	0.0072111	106.5229388	0.006977
		1292.34116		90745.07921		15267.60955	
SBUS	GAS	57.5728478	0.021602234	3267.930854	0.4624146	230.2913913	0.086409
SBUS	DSL	168.152113	0.063093306	3799.171121	0.5375854	2434.842599	0.913591
SBUS	NG	5.74746422	0.002156539	147.7549595	0.0209074	83.22328186	0.031227
		231.472425		7067.101975		2665.13399	
UBUS	GAS	61.0813921	0.034802784	4153.341638	0.1228044	244.3255684	0.139211
UBUS	DSL	341.047486	0.19432108	28477.87101	0.8420227	1364.189944	0.777284
UBUS	ELEC	2.01870278	0.0145774	15.3192995	0.013046	8.074811102	0.05831
UBUS	NG	34.620419	0.019725925	1174.256644	0.03472	138.481676	0.078904
		438.768		33820.78859		1755.071999	

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	3.582613	0.000205361	348.850212	0.002511	71.68092094	0.004109
HHDT	DSL	1338.43852	0.076721576	117079.9809	0.8427391	15181.70834	0.870241
HHDT	ELEC	84.8880749	0.004865929	7748.725523	0.0557752	800.5398164	0.045888
HHDT	NG	216.986825	0.012438054	13750.34948	0.0989747	1391.470106	0.079761
		1643.89603		138927.9061		17445.39919	
LDA	GAS	237797.813	0.185847825	6358119.989	0.8519107	1114766.679	0.871232
LDA	DSL	401.209237	0.00031356	8094.891905	0.0010846	1723.630269	0.001347
LDA	ELEC	25244.0756	0.019729183	809588.1364	0.108475	122638.403	0.095846
LDA	PIH	9770.49465	0.007636005	287561.1158	0.0385297	40400.9954	0.031575
		273213.593		7463364.133		1279529.707	
LDT1	GAS	27717.9083	0.212786964	705667.7027	0.9741626	127669.4388	0.980103
LDT1	DSL	0.20411517	1.56697E-06	6.13189135	8.465E-06	1.004393568	7.71E-06
LDT1	ELEC	315.433159	0.002421541	10759.94258	0.0148539	1561.789759	0.01199
LDT1	PIH	248.869388	0.00191054	7950.15027	0.0109751	1029.074919	0.0079
		28282.4149		724383.9274		130261.3079	
LDT2	GAS	206077.473	0.201694221	5643288.703	0.9594033	980667.9472	0.959809
LDT2	DSL	779.569029	0.000762988	21227.36442	0.0036088	3709.707997	0.003631
LDT2	ELEC	4330.71847	0.004238604	103349.0979	0.0175702	21553.59044	0.021095
LDT2	PIH	3821.26322	0.003739985	114216.6916	0.0194177	15800.92342	0.015465
		215009.024		5882081.857		1021732.169	
LHDT1	GAS	13418.9417	0.043218791	401266.6566	0.5815546	199922.2367	0.643896
LHDT1	DSL	6950.28313	0.022384987	217964.5483	0.3158954	87425.81831	0.281575
LHDT1	ELEC	1651.83726	0.005320122	70758.4913	0.1025501	23140.54297	0.074529
		22021.0621	0.070923899	689989.6962		310488.598	
LHDT2	GAS	1516.4271	0.024004706	44034.40819	0.2756241	22592.50437	0.357634
LHDT2	DSL	3226.04377	0.051067559	98642.37485	0.6174312	40579.57229	0.642366
LHDT2	ELEC	416.747081	0.006597014	17085.74846	0.1069447	5526.660476	0.087486
		5159.21796	0.081669279	159762.5315		63172.07667	
MCY	GAS	17265.4221	0.024810501	85331.57088	1	34530.84428	1
MDV	GAS	115764.207	0.197060547	3248130.87	0.9388084	549832.1233	0.935956
MDV	DSL	1415.87661	0.002410187	38111.74264	0.0110155	6658.508154	0.011334
MDV	ELEC	4329.63545	0.007370157	102706.8451	0.0296854	21508.26364	0.036613
MDV	PIH	2286.84905	0.003892807	70894.89154	0.0204908	9456.12081	0.016097
		123796.568		3459844.349		587455.0159	
MH	GAS	975.269461	6.528562915	8905.398988	0.6643877	97.56595692	0.653117
MH	DSL	518.190569	3.46882566	4498.52098	0.3356123	51.81905693	0.346883
		1493.46003		13403.91997		149.3850138	
MHDT	GAS	896.206694	0.011600896	46600.56687	0.1915766	17931.30352	0.232111
MHDT	DSL	4347.36154	0.05627417	170380.3753	0.7004398	52605.8644	0.680954
MHDT	ELEC	446.33236	0.005777523	23740.43769	0.0975978	6143.241422	0.079521
MHDT	NG	59.8142937	0.000774263	2526.342667	0.0103859	572.823646	0.007415
		5749.71489		243247.7225		77253.23299	
OBUS	GAS	235.243136	0.013343559	10564.98748	0.1178641	4706.744665	0.266978
OBUS	DSL	1265.06388	0.071757478	76747.17266	0.8561994	12416.27176	0.704281
OBUS	ELEC	18.6771577	0.001059413	1366.971261	0.0152501	373.6925716	0.021197
OBUS	NG	14.9444811	0.000847687	957.8954951	0.0106864	133.0058819	0.007544
		1533.92865		89637.0269		17629.71488	
SBUS	GAS	87.9882187	0.029791526	4038.389535	0.480597	351.9528747	0.119166
SBUS	DSL	160.725265	0.054419227	3531.519372	0.4202759	2327.301831	0.78799
SBUS	ELEC	17.8499675	0.006043738	651.9980249	0.0775924	163.1263133	0.055232
SBUS	NG	7.67152188	0.002597465	180.9534886	0.0215347	111.0836369	0.037611
		274.234973		8402.860421		2953.464656	
UBUS	GAS	62.5173994	0.034794364	4249.774421	0.1227397	250.0695975	0.139177
UBUS	DSL	238.45178	0.132711503	18140.32876	0.5239193	953.8071182	0.530846
UBUS	ELEC	72.6739364	0.240486472	6853.165253	1.2735823	290.6957455	0.961946
UBUS	NG	75.548882	0.042047099	5381.014979	0.1554116	302.1955282	0.168188
		449.191997		34624.28341		1796.767989	

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM10_RUI	PM10_IDLE	PM10_STR	PM10_PM	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOA	TOG_RUNLO	TOG_DIURN	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
San Mateo	2022	HHDT	Aggregate	Aggregate	Gasoline	4.26179	607.5295	607.5295	0	85.26989	4.217209	0	0.00281	0.00146	0	0.000935	0.005	0.031258	0.001588	0	0.001017	0.02	0.089308	2276.876	0	54.98009	0.116906	0	0.000119	0.151563	0	0.000135	0.60109	0	0.000644	0.048478	0.400153	3.469663	0.877108	0	0.000705	0.048478	0.400153	3.469663	0.045	33.53367	0	6.080621	0.022509	0	0.000544
San Mateo	2022	HHDT	Aggregate	Aggregate	Diesel	1289.917	118758.5	118758.5	0	13886.59	3.367467	50.13908	2.567805	0.026697	0.041054	0	0.008861	0.031515	0.027904	0.04291	0	0.03444	0.090042	1868.7	8522.619	0	0.001942	0.155104	0	0.294414	1.342742	0	0.041821	3.339355	0	0	0	0	0.04761	3.801601	0	0	0	0	0.186789	0.159005	43.82276	0	0.017695	0.080704	0
San Mateo	2022	HHDT	Aggregate	Natural Ga		144.1612	9768.638	9768.638	0	950.7524	1.845139	10.30429	0	0.002051	0.011217	0	0.009	0.058943	0.00223	0.012199	0	0.036	0.168408	1557.751	8370.006	0	3.666383	25.60841	0	0.317558	1.706281	0	0.087249	0.429393	0	0	0	0	3.781534	26.2076	0	0	0	0	0.734123	18.35301	67.58246	0	0	0	0
San Mateo	2022	LDA	Aggregate	Aggregate	Gasoline	240666.4	7995565	7995565	0	1130997	0.047702	0	0.275282	0.001241	0	0.002105	0.002	0.002347	0.00135	0	0.002289	0.008	0.006707	282.9533	0	72.26541	0.002546	0	0.077367	0.004869	0	0.033486	0.010142	0	0.368004	0.090257	0.23026	1.365279	0.014797	0	0.402916	0.090257	0.23026	1.365279	0.034582	0.726065	0	3.617602	0.002797	0	0.000714
San Mateo	2022	LDA	Aggregate	Aggregate	Diesel	888.5395	22501.88	22501.88	0	3790.786	0.240012	0	0	0.015881	0	0	0.002	0.002391	0.016599	0	0	0.008	0.006831	236.6875	0	0	0.001267	0	0	0.03729	0	0	0.02727	0	0	0	0	0	0.031045	0	0	0	0	0.0031	0.330004	0	0	0.002243	0	0
San Mateo	2022	LDA	Aggregate	Electricity		14591.4	568258.7	0	568258.7	72996.66	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2022	LDA	Aggregate	Aggregate	Plug-in Hyb	6271.758	249381.9	127562.4	121819.5	25933.72	0.003286	0	0.117199	0.000663	0	0.002168	0.002	0.001311	0.000722	0	0.002358	0.008	0.003747	137.9916	0	66.6249	0.00043	0	0.042806	0.00058	0	0.020671	0.001381	0	0.176635	0.036142	0.032302	0.39726	0.002015	0	0.193393	0.036142	0.032302	0.39726	0.020013	0.205923	0	1.37819	0.001364	0	0.000659
San Mateo	2022	LDT1	Aggregate	Aggregate	Gasoline	24136.47	736196.1	736196.1	0	109571	0.134919	0	0.395074	0.001791	0	0.002798	0.002	0.002838	0.001948	0	0.003043	0.008	0.008107	332.0233	0	88.05436	0.00631	0	0.109218	0.009543	0	0.038745	0.028415	0	0.569782	0.157522	0.456069	2.467901	0.034599	1.368916	0	5.624448	0.003282	0	0.000871
San Mateo	2022	LDT1	Aggregate	Aggregate	Diesel	8.510916	119.4982	119.4982	0	25.11455	1.690269	0	0	0.241464	0	0	0.002	0.00334	0.252382	0	0	0.008	0.009543	418.5155	0	0	0.014886	0	0	0.065937	0	0	0.320488	0	0	0	0	0	0.364855	0	0	0	0	0.0031	1.709562	0	0	0.003966	0	0
San Mateo	2022	LDT1	Aggregate	Aggregate	Electricity	61.93893	2054.9	0	2054.9	294.187	0	0	0	0	0	0	0.002	0.001538	0	0	0	0.008	0.004394	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2022	LDT1	Aggregate	Aggregate	Plug-in Hyb	19.40692	849.1339	406.2744	442.8594	80.24761	0.003074	0	0.117199	0.000413	0	0.001456	0.002	0.001322	0.000449	0	0.001583	0.008	0.003777	129.0739	0	73.49717	0.000404	0	0.042967	0.000546	0	0.020882	0.001292	0	0.176635	0.024905	0.022892	0.287748	0.001885	0	0.193393	0.024905	0.022892	0.287748	0.020095	0.192615	0	1.37819	0.001276	0	0.000727
San Mateo	2022	LDT2	Aggregate	Aggregate	Gasoline	128775.8	4489208	4489208	0	617258.5	0.062575	0	0.324659	0.001272	0	0.002033	0.002	0.002716	0.001384	0	0.002212	0.008	0.007761	346.2249	0	88.33688	0.002639	0	0.081429	0.005428	0	0.036476	0.010335	0	0.378106	0.068121	0.172205	1.07279	0.015078	0	0.413978	0.068121	0.172205	1.07279	0.03686	0.748119	0	3.725451	0.003423	0	0.000873
San Mateo	2022	LDT2	Aggregate	Aggregate	Diesel	498.9179	17455.1	17455.1	0	2406.111	0.047726	0	0	0.005147	0	0	0.002	0.002738	0.00538	0	0	0.008	0.007822	319.776	0	0	0.000624	0	0	0.050381	0	0	0.013436	0	0	0	0	0	0.015295	0	0	0	0	0.0031	0.124515	0	0	0.00303	0	0
San Mateo	2022	LDT2	Aggregate	Aggregate	Electricity	502.691	16536.35	0	16536.35	2591.33	0	0	0	0	0	0	0.002	0.001523	0	0	0	0.008	0.004353	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2022	LDT2	Aggregate	Aggregate	Plug-in Hyb	938.5352	39780.13	19647.25	20132.88	3880.843	0.003173	0	0.117199	0.000533	0	0.001824	0.002	0.001316	0.00058	0	0.001984	0.008	0.003761	133.2387	0	79.72461	0.000417	0	0.042967	0.000564	0	0.02082	0.001334	0	0.176635	0.026237	0.024762	0.312901	0.001946	0	0.193393	0.026237	0.024762	0.312901	0.020712	0.19883	0	1.37819	0.001317	0	0.000788
San Mateo	2022	LHDT1	Aggregate	Aggregate	Gasoline	10003.64	379521.5	379521.5	0	149039.3	0.147855	0.036625	0.627998	0.001475	0	0.00028	0.002	0.0273	0.001604	0	0.000304	0.008	0.078	873.9961	119.3318	27.2104	0.00734	0.115266	0.0324	0.008388	0.003078	0.051835	0.036131	0.419759	0.159081	0.039876	0.21247	2.143205	0.052722	0.612512	0.174174	0.039876	0.21247	2.143205	0.044922	1.060707	3.758503	3.2802	0.00864	0.00118	0.000269
San Mateo	2022	LHDT1	Aggregate	Diesel		4125.911	163656.9	163656.9	0	51898.77	1.504213	1.931831	0	0.031512	0.027157	0	0.003	0.0273	0.032937	0.028385	0	0.012	0.078	637.8215	131.7515	0	0.007485	0.005098	0	0.100489	0.020757	0	0.161141	0.10976	0	0	0	0	0.183448	0.124954	0	0	0	0	0.175401	0.431298	0.909745	0	0.006044	0.001248	0
San Mateo	2022	LHDT2	Aggregate	Aggregate	Gasoline	1166.848	41928.69	41928.69	0	17384.3	0.172444	0.036335	0.63879	0.001438	0	0.000256	0.002	0.03185	0.001563	0	0.000279	0.008	0.091	987.4952	138.4793	25.88997	0.006917	0.113246	0.032524	0.010039	0.002938	0.050567	0.032554	0.416435	0.161154	0.042451	0.223651	2.256912	0.047503	0.60766	0.176444	0.042451	0.223651	2.256912	0.044984	0.96909	3.758162	3.27211	0.009762	0.001369	0.000256
San Mateo	2022	LHDT2	Aggregate	Aggregate	Diesel	1718.365	70077.77	70077.77	0	21614.87	1.063364	1.845339	0	0.026451	0.026962	0	0.003	0.03185	0.027647	0.028181	0	0.012	0.091	760.4369	209.0317	0	0.0066	0.005098	0	0.119807	0.032933	0	0.142091	0.10976	0	0	0	0	0.161761	0.124954	0	0	0	0	0.190222	0.33983	0.909745	0	0.007206	0.001981	0
San Mateo	2022	MCY	Aggregate	Aggregate	Gasoline	11775.11	70029.62	70029.62	0	23550.22	0.563376	0	0.148145	0.00188	0	0.003836	0.001	0.0042	0.002007	0	0.00407	0.004	0.012	188.692	0	50.07102	0.159449	0	0.191389	0.038859	0	0.008671	1.054922	0	1.43267	3.559039	3.722371	3.591267	1.259821	0	1.557156	3.559039	3.722371	3.591267	0.008767	12.33015	0	7.963377	0.001865	0	0.000495
San Mateo	2022	MDV	Aggregate	Aggregate	Gasoline	72399.54	2561532	2561532	0	344969.9	0.082284	0	0.405736	0.001302	0	0.002201	0.002	0.002736	0.001416	0	0.002394	0.008	0.007817	417.1287	0	107.0056	0.003285	0	0.097944	0.006421	0	0.03969	0.013708	0	0.489899	0.078175	0.208676	1.264413	0.019977	0	0.536373	0.078175	0.208676	1.264413	0.037279	0.822259	0	4.057961	0.004124	0	0.001058
San Mateo	2022	MDV	Aggregate	Aggregate	Diesel	1048.144	37479.46	37479.46	0	5036.896	0.047538	0	0	0.004777	0	0	0.002	0.002777	0.004993	0	0	0.008	0.007934	415.9683	0	0	0.000486	0	0	0.065536	0	0	0.010456	0	0	0	0	0	0.011904	0	0	0	0	0.0031	0.180998	0	0	0.003942	0	0
San Mateo	2022	MDV	Aggregate	Electricity		497.8274	16375.41	0	16375.41	2565.598	0	0	0	0	0	0	0.002	0.001523	0	0	0	0.008	0.004351	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2022	MDV	Aggregate	Aggregate	Plug-in Hyb	517.8537	21966.08	11106.12	10859.96	2141.325	0.003248	0	0.117199	0.000662	0	0.002216	0.002	0.001313	0.00072	0	0.00241	0.008	0.003752	136.3969	0	99.02064	0.000428	0	0.043094	0.000581	0	0.020938	0.001365	0	0.176635	0.028658	0.027868	0.344841	0.001992	0	0.193393	0.028658	0.027868	0.344841	0.021235	0.203543	0	1.37819	0.001348	0	0.000979
San Mateo	2022	MH	Aggregate	Aggregate	Gasoline	751.6488	7043.926	7043.926	0	75.19494	0.465552	0	0.403779	0.001863	0	0.00047	0.003	0.015756	0.002026	0	0.000512	0.012	0.045017	1948.174	0	32.24518	0.017921	0	0.039048	0.027477	0	0.041219	0.080748	0	0.17064	12.70927	0.296989	4.339134	0.117828	0	0.186829	12.70927	0.296989	4.339134	0.044744	2.072946	0	3.847624	0.01926	0	0.000319
San Mateo	2022	MH	Aggregate	Aggregate	Diesel	300.3894	3250.689	3250.689	0	30.03894	3.401996	0	0	0.063019	0	0	0.004	0.015675	0.063868	0	0	0.016	0.044785	1084.767	0	0	0.00458	0	0	0.170906	0	0	0.09861	0	0	0	0	0	0.112261	0	0	0	0	0.179676	0.315592	0	0	0.010279	0	0
San Mateo	2022	MHDT	Aggregate	Aggregate	Gasoline	756.5401	44483.7	44483.7	0	15136.85	0.604094	0.088245	0.46581	0.00141	0	0.000575	0.003	0.015756	0.001534	0	0.000625	0.012	0.045017	1795.462	537.4412	47.64422	0.019663	0.256996	0.051354	0.028235	0.007106	0.034029	0.098372	1.009116	0.288081	0.038151	0.314095	2.937981	0.143545	1.4725	0.315413	0.038151	0.314095	2.937981	0.044954	2.080066	15.07471	6.396341	0.01775	0.005313	0.000471
San Mateo	2022	MHDT	Aggregate	Diesel		4156.051	174304	174304	0	49995.69	1.853334	15.89701	1.436117	0.023182	0.047988	0	0.003	0.015983	0.02423	0.050158	0	0.012	0.045666	1163.775	2327.752	0	0.002813	0.013999	0	0.183353	0.366738	0	0.060556	0.301404	0	0	0	0	0.068939	0.343126	0	0	0	0	0.193605	0.190383	7.265304	0	0.01102	0.022042	0
San Mateo	2022	MHDT	Aggregate	Natural Ga		40.6324	1873.257	1873.257	0	381.7521	0.153851	6.514328	0	0.001104	0.016957	0	0.003	0.016076	0.001201	0.018442	0	0.012	0.045932	1016.708	5323.016	0	0.747144	17.79445	0	0.207263	1.085132	0	0.010675	0.254248	0	0	0	0	0.762515	18.16055	0	0	0	0	1.06	3.046292	32.12184	0	0	0	0
San Mateo	2022	OBUS	Aggregate	Aggregate	Gasoline	256.1924	15869.04	15869.04	0	5125.898	0.334451	0.065049	0.372974	0.000967	0	0.000281	0.003	0.01568	0.001052	0	0.000306	0.012	0.044799	1762.688	376.5742	30.5752	0.010394	0.20597	0.033776	0.01844	0.005899	0.032179	0.045248	0.746076	0.166832	0.02655	0.111811	1.875172	0.071862	1.088672	0.18266	0.02655	0.111811	1.875172	0.044917	1.079968	5.773479	3.517583	0.017426	0.003723	0.000302
San Mateo	2022	OBUS	Aggregate	Aggregate	Diesel	1024.18	74221.67	74221.67	0	10035.19	1.072703	6.342591	1.429669	0.010592	0.00365	0	0.003	0.01742	0.011071	0.003815	0	0.012	0.04977	1257.365	1266.668	0	0.001405	0.014292	0	0.198098	0.199564	0	0.030244	0.307698	0	0	0	0	0.03443	0.350291	0	0	0	0	0.210134	0.116655	5.413261	0	0.011906	0.011995	0
San Mateo	2022	OBUS	Aggregate	Aggregate	Natural Ga	11.96887	654.3713	654.3713	0	106.5229	0.293719	1.58105	0	0.000566	0.002858	0	0.003	0.016148	0.000615	0.003109	0	0.012	0.046137	1069.812	1202.184	0	0.733013	4.775652	0	0.218088	0.245073	0	0.010473	0.068235	0	0	0	0	0.748094	4.873903	0	0	0	0	1.06	3.101343	5.006328	0	0	0	0
San Mateo	2022	SBUS	Aggregate	Aggregate	Gasoline	57.57285	3267.931	3267.931	0	230.2914	0.981493	0.921357	0.655387	0.001299	0	0.000777	0.002	0.015721	0.001412	0	0.000845	0.008	0.044917	807.8108	2570.697	63.52492	0.024786	2.43655	0.092559	0.045477	0.081943	0.056213	0.121107	10.56494	0.538292	0.15493	0.449507	2.231691	0.17672	15.41634	0.589362	0.15493	0.449507	2.231691	0.045	3.134679	81.77802	13.70908	0.007986	0.025414	0.000628
San Mateo	2022	SBUS	Aggregate	Diesel		168.1521	3799.171	3799.171	0	2434.843	5.308039	24.50088	0.415745	0.025509	0.027927	0	0.003	0.015721	0.026662	0.02919	0	0.012	0.044917	1155.182	2256.975	0	0.003351	0.008427	0	0.181999	0.355587	0	0.072141	0.18143	0	0	0	0	0.082127	0.206545	0	0	0	0	0.128799	0.214547	4.164591	0	0.010939	0.021372	0
San Mateo	2022	SBUS	Aggregate	Natural Ga		5.747464	147.755	147.755	0	83.22328	0.580038	5.278861	0	0.003378	0.011167	0	0.003	0.015721	0.003674	0.012145	0	0.012	0.044917	1270.028	4071.06	0	3.473989	15.35501	0	0.258904	0.829912	0	0.049636	0.219393	0	0	0	0	3.545461	15.67091	0	0	0	0	1.06	11.82462	20.31851	0	0	0	0
San Mateo	2022	UBUS	Aggregate	Aggregate	Gasoline	61.08139	4153.342	4153.342	0	244.3256	0.052732	0	0.593554	0.000924	0	0.000101	0.002073	0.032333	0.001005	0	0.000011	0.00829	0.092379	1026.004	0	41.36564	0.002283	0	0.05585	0.006009	0	0.07764	0.006738	0	0.216361	0.059157	0.09606	0.592841	0.009832	0	0.236888	0.059157	0.09606	0.592841	0.045	0.562776	0	5.939286	0.010143	0	0.000409
San Mateo	2022	UBUS	Aggregate	Diesel		341.0475	28477.87	28477.87	0	1364.19	2.903167	0	0	0.007622	0	0	0.007913	0.0385	0.007966	0	0	0.031652	0.11	1452.079	0	0	0.00732	0	0	0.228776	0	0	0.157595	0	0	0	0	0	0.179409	0	0	0	0	0.12243	0.193248	0	0	0.013759	0	0
San Mateo	2022	UBUS	Aggregate	Electricity		2.018703	15.3193	0	15.3193	8.074811	0	0	0	0	0	0	0.009	0.01925	0	0	0	0.036	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2022	UBUS	Aggregate	Natural Ga		34.62042	1174.257	1174.257	0	138.4817	0.063543	0	0	0.000296	0	0	0.008807	0.0385	0.00031	0	0	0.035229	0.11	1350.881	0	0	4.451808	0	0	0.275386	0	0	0.063608	0	0	0	0	0	4.543397	0	0	0	0	0.97	52.64109	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMBW	PM2.5_PMTW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMBW	PM10_PMTW	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS	TOG_DIURN	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
San Mateo	2023	HHDT	Aggregate	Aggregate	Gasoline	4.303891	593.3265	593.3265	0	86.11225	4.056089	0	0.0028	0.00142	0	0.000834	0.005	0.031149	0.001544	0	0.000907	0.02	0.088996	2258.184	0	54.48492	0.114491	0	0.000118	0.150249	0	0.000135	0.581376	0	0.000638	0.041838	0.335524	2.939257	0.848342	0	0.000699	0.041838	0.335524	2.939257	0.845	33.28789	0	6.069294	0.022324	0	0.000539
San Mateo	2023	HHDT	Aggregate	Aggregate	Diesel	1295.72	119079.6	119079.6	0	14027.66	2.889862	47.02809	2.876808	0.025432	0.037858	0	0.008609	0.030943	0.026582	0.03957	0	0.034434	0.08841	1843.774	8291.615	0	0.001322	0.156217	0	0.290487	1.306347	0	0.028463	3.363316	0	0	0	0	0.032403	3.828879	0	0	0	0	0	0.032403	46.58006	0	0.017459	0.078517	0	0
San Mateo	2023	HHDT	Aggregate	Aggregate	Electricity	0.738781	40.81187	0	40.81187	9.636589	0	0	0	0	0	0	0	0	0	0	0	0.034663	0.039372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	HHDT	Aggregate	Aggregate	Natural Ga	157.5655	10602.72	10602.72	0	1067.368	1.650268	10.1232	0	0.001897	0.012167	0	0	0.009	0.058575	0.002063	0.013232	0	0.036	0.167357	1522.593	8490.533	0	3.343054	25.56751	0	0.310391	1.730851	0	0.076973	0.418135	0	0	0	0	3.445109	26.1537	0	0	0	0	0	0.73711	17.41229	66.41256	0	0	0	0	0
San Mateo	2023	LDA	Aggregate	Aggregate	Gasoline	240378.8	7727537	7727537	0	1128355	0.042338	0	0.260506	0.001198	0	0.002031	0.002	0.002348	0.001303	0	0.002208	0.008	0.006708	278.3785	0	70.81713	0.002267	0	0.072534	0.004517	0	0.032351	0.008874	0	0.341649	0.087062	0.222247	1.324707	0.012948	0	0.374061	0.087062	0.222247	1.324707	0.035408	0.677749	0	3.395649	0.002752	0	0.0007
San Mateo	2023	LDA	Aggregate	Aggregate	Diesel	833.7612	19906.52	19906.52	0	3528.191	0.213764	0	0	0.014362	0	0	0.002	0.002398	0.015012	0	0	0.008	0.006851	234.8149	0	0	0.001164	0	0	0.036995	0	0	0.02507	0	0	0	0	0	0.02854	0	0	0	0	0	0	0.0031	0.317118	0	0	0.002225	0	0
San Mateo	2023	LDA	Aggregate	Aggregate	Electricity	16299	630419.6	0	630419.6	81240.99	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.00437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	LDA	Aggregate	Aggregate	Plug-in Hyb	6930.414	264587.6	131767.9	132819.8	28657.26	0.003199	0	0.117199	0.000615	0	0.002065	0.002	0.001318	0.000669	0	0.002246	0.008	0.003766	134.3501	0	65.86248	0.000415	0	0.042451	0.000556	0	0.020334	0.001345	0	0.176635	0.03705	0.032896	0.392427	0.001962	0	0.193393	0.03705	0.032896	0.392427	0.019696	0.200492	0	1.37819	0.001328	0	0.000651
San Mateo	2023	LDT1	Aggregate	Aggregate	Gasoline	24557.61	732297.8	732297.8	0	111855.3	0.11638	0	0.364578	0.001649	0	0.002601	0.002	0.002829	0.001794	0	0.002828	0.008	0.008082	326.1114	0	85.73673	0.005448	0	0.099842	0.008499	0	0.037022	0.024289	0	0.513929	0.14557	0.416379	2.294434	0.035435	0	0.562687	0.14557	0.416379	2.294434	0.037022	1.217988	0	5.093009	0.003224	0	0.000848
San Mateo	2023	LDT1	Aggregate	Aggregate	Diesel	7.655601	101.9185	101.9185	0	22.20173	1.676086	0	0	0.239368	0	0	0.002	0.003332	0.250191	0	0	0.008	0.00952	418.3389	0	0	0.014739	0	0	0.065909	0	0	0.317327	0	0	0	0	0	0.361255	0	0	0	0	0	0	0.0031	1.688168	0	0	0.003964	0	0
San Mateo	2023	LDT1	Aggregate	Aggregate	Electricity	74.62331	2574.77	0	2574.77	357.9526	0	0	0	0	0	0	0.002	0.001535	0	0	0	0.008	0.004386	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	LDT1	Aggregate	Aggregate	Plug-in Hyb	34.67073	1451.31	668.3078	783.0024	143.3635	0.002958	0	0.117199	0.000383	0	0.001401	0.002	0.001331	0.000416	0	0.001524	0.008	0.003802	124.2265	0	72.42832	0.000385	0	0.042531	0.000515	0	0.020414	0.001243	0	0.176635	0.024383	0.02158	0.274849	0.001814	0	0.193393	0.024383	0.02158	0.274849	0.01934	0.185385	0	1.37819	0.001228	0	0.000716
San Mateo	2023	LDT2	Aggregate	Aggregate	Gasoline	139222.3	4716888	4716888	0	668266.1	0.05408	0	0.29713	0.001207	0	0.001949	0.002	0.002716	0.001313	0	0.002119	0.008	0.007759	339.1094	0	86.14007	0.00237	0	0.075845	0.004959	0	0.034716	0.009113	0	0.347984	0.063629	0.160781	1.007437	0.013297	0	0.380999	0.063629	0.160781	1.007437	0.037748	0.693563	0	3.480515	0.003352	0	0.000852
San Mateo	2023	LDT2	Aggregate	Aggregate	Diesel	541.6894	18280.98	18280.98	0	2609.031	0.042759	0	0	0.004694	0	0	0.002	0.002739	0.004906	0	0	0.008	0.007825	314.2391	0	0	0.000594	0	0	0.049508	0	0	0.012791	0	0	0	0	0	0.014562	0	0	0	0	0	0	0.0031	0.121058	0	0	0.002978	0	0
San Mateo	2023	LDT2	Aggregate	Aggregate	Electricity	855.0521	26877.43	0	26877.43	4389.934	0	0	0	0	0	0	0.002	0.001524	0	0	0	0.008	0.004355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	LDT2	Aggregate	Aggregate	Plug-in Hyb	1293.229	52235.96	24959.1	27276.86	5347.502	0.00307	0	0.117199	0.000478	0	0.001688	0.002	0.001325	0.00052	0	0.001836	0.008	0.003785	128.9014	0	78.74622	0.000399	0	0.042537	0.000535	0	0.02042	0.00129	0	0.176635	0.025663	0.02377	0.299211	0.001883	0	0.193393	0.025663	0.02377	0.299211	0.020047	0.192361	0	1.37819	0.001274	0	0.000778
San Mateo	2023	LHDT1	Aggregate	Aggregate	Gasoline	10572.08	392533.1	392533.1	0	157508.2	0.12528	0.035112	0.59784	0.00142	0	0.000253	0.002	0.0273	0.001545	0	0.000275	0.008	0.078	853.4932	117.883	26.97693	0.006321	0.111177	0.030421	0.00715	0.002997	0.050012	0.03091	0.4025	0.148384	0.036924	0.198922	2.014404	0.045104	0.587327	0.162462	0.036924	0.198922	2.014404	0.044937	0.986439	3.761565	3.318076	0.008438	0.001165	0.000267
San Mateo	2023	LHDT1	Aggregate	Aggregate	Diesel	4577.109	179686.5	179686.5	0	57574.27	1.224717	1.76206	0	0.0273	0.026942	0	0.003	0.0273	0.028534	0.02816	0	0.012	0.078	630.6192	129.0392	0	0.006697	0.005098	0	0.099354	0.02033	0	0.144187	0.10976	0	0	0	0	0.164147	0.124954	0	0	0	0	0	0.184546	0.371953	0.909745	0	0.005975	0.001223	0	0
San Mateo	2023	LHDT2	Aggregate	Aggregate	Gasoline	1231.236	43549.94	43549.94	0	18343.59	0.144	0.03443	0.605262	0.001368	0	0.000226	0.002	0.03185	0.001487	0	0.000246	0.008	0.091	963.6905	136.6851	25.60031	0.005686	0.108022	0.030291	0.008533	0.002829	0.048554	0.026382	0.394722	0.148891	0.038757	0.204501	2.085419	0.038496	0.575977	0.163017	0.038757	0.204501	2.085419	0.044989	0.878989	3.762499	3.300689	0.009527	0.001351	0.000253
San Mateo	2023	LHDT2	Aggregate	Aggregate	Diesel	1952.709	77798.97	77798.97	0	24562.62	0.883685	1.679482	0	0.023677	0.026872	0	0.003	0.03185	0.024747	0.028087	0	0.012	0.091	747.9998	204.9987	0	0.006098	0.005098	0	0.117848	0.032298	0	0.131288	0.10976	0	0	0	0	0.149463	0.124954	0	0	0	0	0	0.196309	0.303972	0.909745	0	0.007088	0.001942	0	0
San Mateo	2023	MCY	Aggregate	Aggregate	Gasoline	12536.77	73820.04	73820.04	0	2507.354	0.537143	0	0.136291	0.001883	0	0.003663	0.001	0.0042	0.002012	0	0.003894	0.004	0.012	187.6396	0	47.90752	0.151085	0	0.181429	0.037735	0	0.008068	0.98245	0	1.347169	3.555217	3.717102	3.435381	1.181139	0	1.464498	3.555217	3.717102	3.435381	0.008844	11.57445	0	7.838613	0.001855	0	0.000474
San Mateo	2023	MDV	Aggregate	Aggregate	Gasoline	78398.02	2704273	2704273	0	374408	0.068743	0	0.362909	0.001222	0	0.002069	0.002	0.002734	0.001329	0	0.002251	0.008	0.00781	408.872	0	104.3819	0.002844	0	0.089064	0.005703	0	0.037349	0.01161	0	0.437746	0.072395	0.194625	1.190411	0.016926	0	0.479274	0.072395	0.194625	1.190411	0.038092	0.747341	0	3.739188	0.004042	0	0.001032
San Mateo	2023	MDV	Aggregate	Aggregate	Diesel	1107.903	37908.13	37908.13	0	5305.818	0.04176	0	0	0.004328	0	0	0.002	0.002738	0.004524	0	0	0.008	0.007965	410.1053	0	0	0.000449	0	0	0.064612	0	0	0.009665	0	0	0	0	0	0.011002	0	0	0	0	0	0	0.0031	0.175602	0	0	0.003886	0	0
San Mateo	2023	MDV	Aggregate	Aggregate	Electricity	906.5115	28548.82	0	28548.82	4657.021	0	0	0	0	0	0	0.002	0.001524	0	0	0	0.008	0.004354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	MDV	Aggregate	Aggregate	Plug-in Hyb	678.1174	27547.88	13448.47	14099.41	2804.015	0.003136	0	0.117199	0.000578	0	0.002002	0.002	0.001322	0.000628	0	0.002177	0.008	0.003776	131.6991	0	97.50736	0.000409	0	0.04268	0.00055	0	0.020553	0.001318	0	0.176635	0.027976	0.026258	0.325091	0.001923	0	0.193393	0.027976	0.026258	0.325091	0.020504	0.196536	0	1.37819	0.001302	0	0.000964
San Mateo	2023	MH	Aggregate	Aggregate	Gasoline	774.8115	7442.976	7442.976	0	77.51215	0.375927	0	0.404893	0.001719	0	0.000436	0.003	0.015756	0.001869	0	0.000474	0.012	0.045017	1947.17	0	31.89355	0.01417	0	0.038105	0.023764	0	0.042528	0.661382	0	0.16244	11.11371	0.261936	3.902966	0.089569	0	0.177852	11.11371	0.261936	3.902966	0.044861	1.492455	0	3.64337	0.01925	0	0.000315
San Mateo	2023	MH	Aggregate	Aggregate	Diesel	328.5822	3487.262	3487.262	0	32.85822	3.229197	0	0	0.055455	0	0	0.004	0.015675	0.057962	0	0	0.016	0.044785	1085.349	0	0	0.004377	0	0	0.170997	0	0	0.094242	0	0	0	0	0	0.107288	0	0	0	0	0	0	0.185977	0.297993	0	0	0.010284	0	0
San Mateo	2023	MHDT	Aggregate	Aggregate	Gasoline	780.1924	45998.29	45998.29	0	15610.09	0.48063	0.088485	0.45368	0.001377	0	0.000542	0.003	0.015756	0.001498	0	0.00059	0.012	0.045017	1763.945	530.3326	46.39494	0.015519	0.261469	0.049092	0.023565	0.00737	0.034436	0.076573	1.012695	0.270574	0.033571	0.274671	2.598982	0.111736	1.477722	0.296245	0.033571	0.274671	2.598982	0.044979	1.599932	15.11623	5.97113	0.017438	0.005243	0.000459
San Mateo	2023	MHDT	Aggregate	Aggregate	Diesel	4189.443	175901.2	175901.2	0	50462.49	1.42648	14.09475	1.586053	0.018782	0.040011	0	0.003	0.015983	0.019631	0.041821	0	0.012	0.045665	1155.919	2264.351	0	0.002009	0.012779	0	0.182115	0.356749	0	0.043248	0.275121	0	0	0	0	0.049234	0.313205	0	0	0	0	0	0.206918	0.148734	7.579195	0	0.010946	0.021442	0	0
San Mateo	2023	MHDT	Aggregate	Aggregate	Electricity	2.059294	44.11104	0	44.11104	25.56596	0	0	0	0	0	0	0.003	0.007991	0	0	0	0.012	0.022833	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	MHDT	Aggregate	Aggregate	Natural Ga	38.13508	1832.77	1832.77	0	342.2075	0.132951	6.609544	0	0.001228	0.018659	0	0	0.003	0.016094	0.001336	0.020293	0	0.012	0.045982	1008.408	5458.884	0	0.769477	17.52611	0	0.20557	1.112829	0	0.010994	0.250414	0	0	0	0	0.785307	17.88668	0	0	0	0	0	1.06	3.064735	35.81803	0	0	0	0	0
San Mateo	2023	OBUS	Aggregate	Aggregate	Gasoline	256.5607	15177.04	15177.04	0	5133.267	0.308106	0.065063	0.369453	0.001	0	0.000287	0.003	0.01568	0.001088	0	0.000312	0.012	0.044799	1742.276	373.6354	30.27704	0.009595	0.205564	0.033157	0.017281	0.005903	0.031894	0.045405	0.746279	0.163878	0.026481	0.113352	1.902307	0.066255	1.088969	0.179425	0.026481	0.113352	1.902307	0.044919	0.985887	5.774707	3.460301	0.017224	0.003694	0.000299
San Mateo	2023	OBUS	Aggregate	Aggregate	Diesel	1051.799	74746.95	74746.95	0	10288.18	0.843686	5.779548	1.508936	0.009565	0.003378	0	0.003	0.017376	0.009998	0.003531	0	0.012	0.049647	1250.895	1225.784	0	0.000947	0.013995	0	0.197079	0.119123	0	0.020398	0.301313	0	0	0	0	0.023222	0.343022	0	0	0	0	0	0.217631	0.094166	5.629794	0	0.011845	0.011607	0	0
San Mateo	2023	OBUS	Aggregate	Aggregate	Natural Ga	6.660994	415.1452	415.1452	0	59.28285	0.232948	1.556882	0	0.000856	0.003435	0	0	0.003	0.016148	0.000931	0.003736	0	0.012	0.046137	1029.36	1194.248	0	0.766347	4.477255	0	0.209842	0.243455	0	0.01095	0.063971	0	0	0	0	0.782113	4.569367	0	0	0	0	0	1.06	3.19115	6.306096	0	0	0	0	0
San Mateo	2023	SBUS	Aggregate	Aggregate	Gasoline	62.11288	3411.923	3411.923	0	248.4515	0.897656	0.923288	0.643317	0.001164	0	0.000721	0.002	0.015721	0.001266	0	0.000784	0.008	0.044917	797.3184	2541.99	62.30631	0.021738	2.445799	0.089765	0.041731	0.084017	0.05658	0.106456	10.59413	0.521132	0.139121	0.406864	2.094566	0.15534	15.45893	0.570574	0.139121	0.406864	2.094566	0.045	2.707181	81.95312	13.2835	0.007882	0.02513	0.000616
San Mateo	2023	SBUS	Aggregate	Aggregate	Diesel	168.8118	3793.041	3793.041	0	2444.395	5.00314	23.87172	0.437587	0.023953	0.025817	0	0.003	0.015721	0.025036	0.026985	0	0.012	0.044917	1149.738	2246.853	0	0.003233	0.008312	0	0.181142	0.353993	0	0.069615	0.178964	0	0	0	0	0.079252	0.203737	0	0	0	0	0	0.134019	0.208594	4.289616	0	0.010887	0.021276	0	0
San Mateo	2023	SBUS	Aggregate	Aggregate	Electricity	0.041475	0.481131	0	0.481131	0.600564	0	0	0	0	0	0	0	0.003	0.00786	0	0	0	0.012	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	SBUS	Aggregate	Aggregate	Natural Ga	6.023036	153.4041	153.4041	0	87.21356	0.556332	5.264261	0	0.003378	0.011516	0	0	0.003	0.015721	0.003674	0.012524	0	0.012	0.044917	1258.036	4080.42	0	3.408583	15.17474	0	0.256459	0.83182	0	0.048702	0.216817	0	0	0	0	3.478709	15.48694	0	0	0	0	0	1.06	11.51682	21.10371	0	0	0	0	0
San Mateo	2023	UBUS	Aggregate	Aggregate	Gasoline	61.26278	4165.676	4165.676	0	245.0511	0.037017	0	0.578233	0.000989	0	0.000127	0.002	0.002073	0.032333	0.001076	0	0.000139	0.00829	0.092379	1025.682	0	41.23868	0.002259	0	0.053565	0.004956	0	0.077039	0.006631	0	0.206281	0.070589	0.114555	0.693653	0.009677	0	0.225852	0.070589	0.114555	0.693653	0.045	0.556154	0	5.887541	0.01014	0	0.000408
San Mateo	2023	UBUS	Aggregate	Aggregate	Diesel	341.8463	28540.62	28540.62	0	1367.385	2.897593	0	0	0.007619	0	0	0.002	0.007913	0.0385	0.007964	0	0	0.031652	0.11	1451.453	0	0	0.007311	0	0	0.228677	0	0	0.157395	0	0	0	0	0.179182	0	0	0	0	0	0	0.122644	0.192989	0	0	0.013753	0	0
San Mateo	2023	UBUS	Aggregate	Aggregate	Electricity	2.018703	15.3193	0	15.3193	8.074811	0	0	0	0	0	0	0	0.009	0.01925	0	0	0	0.036	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2023	UBUS	Aggregate	Aggregate	Natural Ga	34.94319	1199.611	1199.611	0	139.7728	0.063405	0	0	0.000296	0	0	0.008789	0.0385	0.000309	0	0	0.035157	0.11	1349.38	0	0	4.445831	0	0	0.27508	0	0	0.063522	0	0	0	0	0	0	4.537297	0	0	0	0	0	0	0.97	52.53671	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_DM	PM2.5_PM	PM10_RUI	PM10_IDLE	PM10_STR	PM10_PM	TOG_RUNEX	TOG_IDLEX	TOG_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2024	HHDT	Aggregate	Aggregate	Gasoline	4.38411	570.1519	570.1519	0	87.71727	4.048188	0	0.002195	0.001412	0	0.000781	0.005	0.031087	0.001536	0	0.000849	0.02	0.08882	2242.616	0	52.51813	0.114927	0	9.83E-05	0.151409	0	0.000106	0.580011	0	0.000534	0.038164	0.298441	2.621146	0.84635	0	0.000584	0.038164	0.298441	2.621146	0.0445	33.76595	0	5.064106	0.022171	0	0.000519
San Mateo	2024	HHDT	Aggregate	Aggregate	Diesel	1314.625	119489.1	119489.1	0	14359.46	2.758523	46.67792	2.948259	0.025016	0.035273	0	0.008607	0.030666	0.026147	0.036868	0	0.034429	0.087616	1815.874	8218.84	0	0.001264	0.157243	0	9.83E-05	0.151409	0	0.286092	1.294882	0	0.027205	3.385404	0	0	0	0	0.030971	3.854024	0	0	0.19939	0.118425	47.19978	0	0.017195	0.077828	0
San Mateo	2024	HHDT	Aggregate	Aggregate	Electricity	4.22305	364.2879	0	364.2879	41.8342	0	0	0	0	0	0	0.008582	0.016829	0	0	0	0.034329	0.048082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	HHDT	Aggregate	Aggregate	Natural Ga	168.5495	11187.83	11187.83	0	1132.175	1.492552	9.520927	0	0.001788	0.012243	0	0.009	0.059336	0.001944	0.013315	0	0.036	0.169533	1498.953	8407.645	0	3.081874	24.13874	0	0.305571	1.713953	0	0.069062	0.389544	0	0	0	0	1.173794	24.68622	0	0	0	0	0.729125	16.65962	64.84398	0	0	0	0
San Mateo	2024	LDA	Aggregate	Aggregate	Gasoline	239419.7	7454000	7454000	0	1124271	0.038087	0	0.247841	0.001162	0	0.001964	0.002	0.002348	0.001263	0	0.002136	0.008	0.006709	273.8201	0	69.41898	0.002038	0	0.068169	0.004236	0	0.031309	0.007847	0	0.318313	0.083377	0.213338	1.277502	0.01145	0	0.348512	0.083377	0.213338	1.277502	0.036176	0.637735	0	3.199778	0.002707	0	0.000686
San Mateo	2024	LDA	Aggregate	Aggregate	Diesel	770.443	17557.03	17557.03	0	3247.138	0.188593	0	0	0.01271	0	0	0.002	0.002404	0.013285	0	0	0.008	0.006869	232.7779	0	0	0.001054	0	0	0.036674	0	0	0.022696	0	0	0	0	0	0.025838	0	0	0	0	0.0031	0.304144	0	0	0.002206	0	0	0
San Mateo	2024	LDA	Aggregate	Aggregate	Electricity	17934.86	689392.1	0	689392.1	89072.05	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LDA	Aggregate	Aggregate	Plug-in Hyb	7500.936	275231.1	133857.4	141373.7	31016.37	0.003125	0	0.117199	0.000577	0	0.001988	0.002	0.001324	0.000628	0	0.002162	0.008	0.003783	131.2036	0	65.11921	0.000402	0	0.042117	0.000534	0	0.020029	0.001313	0	0.176635	0.037635	0.03379	0.393665	0.001916	0	0.193393	0.037635	0.03379	0.393665	0.0194	0.1958	0	1.37819	0.001297	0	0.000644
San Mateo	2024	LDT1	Aggregate	Aggregate	Gasoline	25010.05	728708.6	728708.6	0	1142830.1	0.101175	0	0.337766	0.001531	0	0.002433	0.002	0.002823	0.001665	0	0.002647	0.008	0.008066	320.3175	0	83.57506	0.004741	0	0.091509	0.007635	0	0.035447	0.020943	0	0.464929	0.13393	0.378571	2.119435	0.030557	0	0.509038	0.13393	0.378571	2.119435	0.03751	1.088083	0	4.642443	0.003167	0	0.000826
San Mateo	2024	LDT1	Aggregate	Aggregate	Diesel	6.907674	87.50597	87.50597	0	19.69868	1.656035	0	0	0.236493	0	0	0.002	0.003323	0.247186	0	0	0.008	0.009495	417.763	0	0	0.014564	0	0	0.065819	0	0	0.313559	0	0	0	0	0	0.356966	0	0	0	0	0.0031	1.668132	0	0	0.003959	0	0	0
San Mateo	2024	LDT1	Aggregate	Aggregate	Electricity	91.59654	3278.131	0	3278.131	443.5442	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.004381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LDT1	Aggregate	Aggregate	Plug-in Hyb	54.25069	2174.893	971.2907	1203.602	224.3266	0.002869	0	0.117199	0.000364	0	0.001376	0.002	0.001338	0.000396	0	0.001496	0.008	0.003823	120.4792	0	71.41059	0.00037	0	0.042142	0.000491	0	0.020052	0.001206	0	0.176635	0.024003	0.020809	0.269408	0.00176	0	0.193393	0.024003	0.020809	0.269408	0.018757	0.179795	0	1.37819	0.001191	0	0.000706
San Mateo	2024	LDT2	Aggregate	Aggregate	Gasoline	149536	4914901	4914901	0	718035.6	0.047837	0	0.275637	0.001155	0	0.001881	0.002	0.002719	0.001256	0	0.002046	0.008	0.007768	332.6183	0	84.15109	0.002154	0	0.070859	0.004613	0	0.03323	0.008159	0	0.321903	0.059457	0.151098	0.950815	0.011906	0	0.352443	0.059457	0.151098	0.950815	0.038479	0.65082	0	3.265171	0.003288	0	0.000832
San Mateo	2024	LDT2	Aggregate	Aggregate	Diesel	582.1748	18954.02	18954.02	0	2798.233	0.039602	0	0	0.004525	0	0	0.002	0.002742	0.00473	0	0	0.008	0.007835	308.9591	0	0	0.000583	0	0	0.048677	0	0	0.012549	0	0	0	0	0	0.014287	0	0	0	0	0.0031	0.119356	0	0	0.002928	0	0	0
San Mateo	2024	LDT2	Aggregate	Aggregate	Electricity	1250.957	37598.89	0	37598.89	6394.245	0	0	0	0	0	0	0.002	0.001525	0	0	0	0.008	0.004358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LDT2	Aggregate	Aggregate	Plug-in Hyb	1631.391	62724.85	29203.5	33521.35	6745.803	0.002991	0	0.117199	0.000445	0	0.001613	0.002	0.001331	0.000484	0	0.001754	0.008	0.003803	125.6019	0	77.89253	0.000385	0	0.042141	0.000512	0	0.020051	0.001257	0	0.176635	0.025289	0.023061	0.291714	0.001834	0	0.193393	0.025289	0.023061	0.291714	0.019538	0.18744	0	1.37819	0.001242	0	0.00077
San Mateo	2024	LHDT1	Aggregate	Aggregate	Gasoline	11110.29	401258.4	401258.4	0	165526.8	0.108054	0.033789	0.571117	0.001381	0	0.000231	0.002	0.0273	0.001502	0	0.000252	0.008	0.078	836.8766	116.5649	26.73629	0.005557	0.107506	0.028745	0.006197	0.00292	0.048292	0.02703	0.387394	0.139437	0.033968	0.18488	1.873078	0.039443	0.565284	0.152666	0.033968	0.18488	1.873078	0.044949	0.932434	3.763967	3.345475	0.008273	0.001152	0.000264
San Mateo	2024	LHDT1	Aggregate	Aggregate	Diesel	4996.692	191551.4	191551.4	0	62852.09	1.027551	1.628055	0	0.024469	0.026784	0	0.003	0.0273	0.025575	0.027995	0	0.012	0.078	625.1858	126.8159	0	0.006142	0.005098	0	0.098498	0.01998	0	0.132227	0.10976	0	0	0	0	0.150532	0.124954	0	0	0	0	0.191039	0.331515	0.909745	0	0.005924	0.001202	0
San Mateo	2024	LHDT1	Aggregate	Aggregate	Electricity	56.88552	3530.642	0	3530.642	794.6546	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	LHDT2	Aggregate	Aggregate	Gasoline	1289.385	44551.76	44551.76	0	19209.92	0.122228	0.032802	0.574333	0.001317	0	0.000203	0.002	0.03185	0.001432	0	0.00022	0.008	0.091	944.5417	135.0667	25.31696	0.004775	0.10351	0.028373	0.007371	0.002735	0.046606	0.02185	0.376166	0.138457	0.035403	0.189345	1.948594	0.031883	0.5489	0.151593	0.035403	0.189345	1.948594	0.04499	0.81417	3.766002	3.313222	0.009338	0.001335	0.00025
San Mateo	2024	LHDT2	Aggregate	Aggregate	Diesel	2173.662	83732.44	83732.44	0	27341.93	0.758817	1.552593	0	0.021905	0.026813	0	0.003	0.03185	0.022896	0.028026	0	0.012	0.091	738.893	201.7788	0	0.00575	0.005098	0	0.116413	0.03179	0	0.123794	0.10976	0	0	0	0	0.140931	0.124954	0	0	0	0	0.200587	0.280863	0.909745	0	0.007001	0.001912	0
San Mateo	2024	LHDT2	Aggregate	Aggregate	Electricity	14.72375	865.8383	0	865.8383	194.8979	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	MCY	Aggregate	Aggregate	Gasoline	13263.89	76675.37	76675.37	0	26527.78	0.518793	0	0.126152	0.001881	0	0.003482	0.001	0.0042	0.002012	0	0.003708	0.004	0.012	186.9256	0	46.09461	0.145168	0	0.173078	0.036969	0	0.007549	0.930365	0	1.275208	3.551353	3.70872	3.28364	1.125127	0	1.386524	3.551353	3.70872	3.28364	0.008901	11.0461	0	7.750076	0.001848	0	0.000456
San Mateo	2024	MDV	Aggregate	Aggregate	Gasoline	84173.19	2823183	2823183	0	402441.6	0.058434	0	0.328591	0.001156	0	0.001958	0.002	0.002737	0.001258	0	0.002129	0.008	0.007819	401.2877	0	101.9843	0.002492	0	0.08141	0.005161	0	0.035386	0.009941	0	0.393656	0.066904	0.180975	1.115277	0.014501	0	0.431003	0.066904	0.180975	1.115277	0.038746	0.686178	0	3.45873	0.003967	0	0.001008
San Mateo	2024	MDV	Aggregate	Aggregate	Diesel	1163.667	38157.5	38157.5	0	5552.1	0.037261	0	0	0.004001	0	0	0.002	0.002798	0.004182	0	0	0.008	0.007995	404.1827	0	0	0.000421	0	0	0.063679	0	0	0.009074	0	0	0	0	0	0.01033	0	0	0	0	0.0031	0.171126	0	0	0.003883	0	0	0
San Mateo	2024	MDV	Aggregate	Aggregate	Electricity	1347.217	40547.66	0	40547.66	6889.415	0	0	0	0	0	0	0.002	0.001525	0	0	0	0.008	0.004357	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	MDV	Aggregate	Aggregate	Plug-in Hyb	894.3672	35015.17	16467.11	18548.06	3698.208	0.003021	0	0.117199	0.000509	0	0.001829	0.002	0.00133	0.000553	0	0.001989	0.008	0.0038	126.8709	0	95.82464	0.000391	0	0.042289	0.000521	0	0.020188	0.00127	0	0.176635	0.028115	0.024943	0.310017	0.001853	0	0.193393	0.028115	0.024943	0.310017	0.019752	0.189334	0	1.37819	0.001254	0	0.000947
San Mateo	2024	MH	Aggregate	Aggregate	Gasoline	801.8479	7786.339	7786.339	0	80.21686	0.31412	0	0.403344	0.001626	0	0.000414	0.003	0.015756	0.001768	0	0.00045	0.012	0.045017	1946.554	0	31.59379	0.011734	0	0.037106	0.021154	0	0.043344	0.049091	0	0.154768	9.691274	0.229932	3.473479	0.071633	0	0.169451	9.691274	0.229932	3.473479	0.044918	1.137792	0	3.470688	0.019244	0	0.000312
San Mateo	2024	MH	Aggregate	Aggregate	Diesel	356.6509	3693.518	3693.518	0	35.66509	3.096233	0	0	0.049578	0	0	0.004	0.015675	0.05182	0	0	0.016	0.044785	1085.795	0	0	0.004225	0	0	0.171067	0	0	0.090961	0	0	0	0	0	0.103553	0	0	0	0	0.190835	0.284597	0	0	0.010288	0	0	0
San Mateo	2024	MHDT	Aggregate	Aggregate	Gasoline	803.5707	46997.14	46997.14	0	16077.84	0.392706	0.088662	0.440106	0.001362	0	0.000524	0.003	0.015756	0.001481	0	0.00057	0.012	0.045017	1738.217	524.0271	45.30167	0.012668	0.264735	0.046933	0.020191	0.007577	0.034475	0.061766	1.015329	0.254725	0.030087	0.246862	2.353612	0.090129	1.481566	0.278892	0.030087	0.246862	2.353612	0.044986	1.274083	15.14683	5.603458	0.017184	0.005181	0.000448
San Mateo	2024	MHDT	Aggregate	Aggregate	Diesel	4233.233	177028	177028	0	51051.04	1.307284	13.59602	1.607655	0.016259	0.033511	0	0.003	0.015983	0.016994	0.035026	0	0.012	0.045664	1151.344	2248.491	0	0.001748	0.011985	0	0.181395	0.354251	0	0.037635	0.258043	0	0	0	0	0.042845	0.293763	0	0	0	0	0.208724	0.13444	7.547588	0	0.010903	0.021292	0
San Mateo	2024	MHDT	Aggregate	Aggregate	Electricity	14.28233	871.0875	0	871.0875	206.3119	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	MHDT	Aggregate	Aggregate	Natural Ga	40.94682	1935.863	1935.863	0	369.2827	0.126627	6.578363	0	0.00126	0.019031	0	0.003	0.016095	0.001371	0.020698	0	0.012	0.045986	1003.333	5452.112	0	0.773152	17.27614	0	0.204536	1.111449	0	0.011047	0.246842	0	0	0	0	0.789058	17.63157	0	0	0	0	1.06	3.066853	36.67055	0	0	0	0
San Mateo	2024	OBUS	Aggregate	Aggregate	Gasoline	254.1967	14438.68	14438.68	0	5085.967	0.276687	0.065109	0.370674	0.00102	0	0.000283	0.003	0.01568	0.00111	0	0.000308	0.012	0.044799	1723.101	370.7574	29.97676	0.008478	0.205512	0.032818	0.016007	0.005919	0.031879	0.039535	0.746984	0.162428	0.025788	0.11331	1.92621	0.05769	1.089998	0.177838	0.025788	0.11331	1.92621	0.044947	0.847792	5.778931	3.396221	0.017035	0.003665	0.000296
San Mateo	2024	OBUS	Aggregate	Aggregate	Diesel	1077.493	75002.36	75002.36	0	10539.7	0.835238	5.759378	1.510482	0.009497	0.003284	0	0.003	0.017376	0.009927	0.003413	0	0.012	0.049647	1241.911	1216.11	0	0.000936	0.013985	0	0.195664	0.191599	0	0.020157	0.301093	0	0	0	0	0.022947	0.342772	0	0	0	0	0.217754	0.093918	5.633167	0	0.01176	0.011516	0
San Mateo	2024	OBUS	Aggregate	Aggregate	Electricity	0.873406	79.58076	0	79.58076	17.47512	0	0	0	0	0	0	0.003	0.00794	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	OBUS	Aggregate	Aggregate	Natural Ga	7.797528	492.5585	492.5585	0	69.398	0.196374	1.542446	0	0.001031	0.003779	0	0.003	0.016148	0.001121	0.00411	0	0.012	0.046137	1012.331	1198.177	0	0.786409	4.299019	0	0.20637	0.244256	0	0.011236	0.061424	0	0	0	0	0.802588	4.387464	0	0	0	0	1.06	3.2452	7.082462	0	0	0	0
San Mateo	2024	SBUS	Aggregate	Aggregate	Gasoline	66.88141	3561.549	3561.549	0	267.5256	0.835223	0.92382	0.639831	0.001152	0	0.000724	0.002	0.015721	0.001252	0	0.000787	0.008	0.044917	789.442	2519.886	61.00487	0.01963	2.446302	0.087874	0.039135	0.085207	0.056875	0.09611	10.60191	0.509805	0.133122	0.399591	2.076885	0.140243	15.47029	0.558173	0.133122	0.399591	2.076885	0.045	2.460202	82.00038	12.72081	0.007804	0.024912	0.000603
San Mateo	2024	SBUS	Aggregate	Aggregate	Diesel	168.96	3777.202	3777.202	0	2446.541	4.696712	23.22062	0.459253	0.022409	0.023726	0	0.003	0.015721	0.023422	0.024798	0	0.012	0.044917	1144.311	2236.593	0	0.003112	0.008208	0	0.180287	0.352376	0	0.067	0.176716	0	0	0	0	0.076275	0.201177	0	0	0	0	0.139187	0.202372	4.417573	0	0.010836	0.021179	0
San Mateo	2024	SBUS	Aggregate	Aggregate	Electricity	0.90883	36.62057	0	36.62057	8.140217	0	0	0	0	0	0	0.003	0.00786	0	0	0	0.009214	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	SBUS	Aggregate	Aggregate	Natural Ga	6.288614	158.6097	158.6097	0	91.05913	0.535215	5.251389	0	0.003378	0.011823	0	0.003	0.015721	0.003674	0.012858	0	0.012	0.044917	1247.354	4088.672	0	3.35032	15.01581	0	0.254281	0.833502	0	0.047869	0.214546	0	0	0	0	3.419247	15.32474	0	0	0	0	1.06	11.24264	21.79598	0	0	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Gasoline	61.44418	4178.01	4178.01	0	245.7767	0.036235	0	0.500251	0.001083	0	0.000148	0.002	0.002073	0.032333	0.001178	0	0.000161	0.00829	0.092379	1002.317	0	40.2745	0.00211	0	0.046538	0.004853	0	0.069658	0.006117	0	0.175043	0.050072	0.096281	0.505947	0.008925	0	0.19165	0.050072	0.096281	0.505947	0.045	0.556675	0	6.169996	0.009909	0	0.000398
San Mateo	2024	UBUS	Aggregate	Aggregate	Diesel	277.5893	21477.78	21477.78	0	1110.357	0.375565	0	0	0.006827	0	0	0.002	0.008097	0.0385	0.007136	0	0	0.032388	0.11	1223.727	0	0.003145	0	0	0.192799	0	0	0.067719	0	0	0	0	0	0.077093	0	0	0	0	0.22	0.077195	0	0	0.011595	0	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Electricity	37.0794	3851.303	0	3851.303	148.3176	0	0	0	0	0	0	0.002	0.007366	0.01925	0	0	0	0.029466	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Natural Ga	65.26114	4514.573	4514.573	0	261.0446	0.055424	0	0	0.000272	0	0	0.007741	0.0385	0.000285	0	0	0.030963	0.11	1262.656	0	0	4.100531	0	0	0.257401	0	0	0.058588	0	0	0	0	0	4.184893	0	0	0	0	0.97	46.50633	0	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLE	PM10_STR	PM10_PM	PM10_PM	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2026	HHDT	Aggregate	Aggregate	Gasoline	4.283898	504.3899	504.3899	0	85.71223	3.767128	0	0.001928	0.001363	0	0.000634	0.005	0.031039	0.001482	0	0.00069	0.02	0.088682	2206.809	0	51.03869	0.109196	0	9.88E-05	0.147264	0	0.0001	0.53602	0	0.000536	0.029322	0.212948	1.905434	0.782159	0	0.000587	0.029322	0.212948	1.905434	0.045	33.33714	0	4.679779	0.021817	0	0.000505
San Mateo	2026	HHDT	Aggregate	Aggregate	Diesel	1339.121	1195911.7	1195911.7	0	14836.49	2.513316	46.04181	3.042683	0.024334	0.030988	0	0.008607	0.030272	0.025434	0.032389	0	0.034426	0.086492	1752.991	8044.886	0	0.00116	0.158921	0	0.276185	1.267475	0	0.024964	3.421536	0	0	0	0	0.02842	3.895158	0	0	0	0	0.202556	0.108407	48.25142	0	0.0166	0.07618	0
San Mateo	2026	HHDT	Aggregate	Aggregate	Electricity	17.24092	1568.579	0	1568.579	167.6097	0	0	0	0	0	0	0.008499	0.017277	0	0	0	0.033994	0.049364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	HHDT	Aggregate	Aggregate	Natural Ga	190.6077	12388.44	12388.44	0	1253.654	1.199642	8.304539	0	0.001614	0.012208	0	0.009	0.06089	0.001755	0.013277	0	0.036	0.17397	1452.495	8216.396	0	2.557538	21.22587	0	0.296101	1.674966	0	0.054701	0.334996	0	0	0	0	2.630844	21.69869	0	0	0	0	0.713158	15.13386	61.6539	0	0	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Gasoline	238617.8	6969047	6969047	0	1116592	0.031815	0	0.225592	0.00108	0	0.001846	0.002	0.002349	0.000174	0	0.002007	0.008	0.00671	264.3788	0	66.66342	0.001674	0	0.060063	0.003806	0	0.029206	0.006262	0	0.277135	0.077036	0.201162	1.205717	0.099138	0	0.303428	0.077036	0.201162	1.205717	0.037625	0.572674	0	2.857953	0.002614	0	0.000659
San Mateo	2026	LDA	Aggregate	Aggregate	Diesel	645.0664	13511.27	13511.27	0	2704.797	0.144803	0	0	0.010068	0	0	0.002	0.002414	0.010523	0	0	0.008	0.006897	228.1946	0	0	0.000882	0	0	0.035952	0	0	0.01898	0	0	0	0	0	0.021607	0	0	0	0	0.0031	0.280265	0	0	0.002162	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Electricity	20627.64	751657.4	0	751657.4	101606	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LDA	Aggregate	Aggregate	Plug-in Hyb	8434.471	284060.2	132539.9	151520.3	34876.54	0.002998	0	0.117199	0.00051	0	0.001839	0.002	0.001334	0.000555	0	0.002	0.008	0.003813	125.8756	0	63.67241	0.00038	0	0.041451	0.000497	0	0.019409	0.00126	0	0.176635	0.037598	0.034095	0.388535	0.001838	0	0.193393	0.037598	0.034095	0.388535	0.018859	0.187853	0	1.37819	0.001244	0	0.000629
San Mateo	2026	LDT1	Aggregate	Aggregate	Gasoline	25945.79	717326.6	717326.6	0	118989.9	0.078016	0	0.293254	0.001334	0	0.002155	0.002	0.002818	0.001451	0	0.002344	0.008	0.008052	309.0343	0	79.57832	0.003639	0	0.077166	0.006309	0	0.032586	0.015756	0	0.382671	0.113653	0.314838	1.794906	0.022991	0	0.418976	0.113653	0.314838	1.794906	0.038437	0.911226	0	3.898361	0.003055	0	0.000787
San Mateo	2026	LDT1	Aggregate	Aggregate	Diesel	5.731399	66.09906	66.09906	0	15.81841	1.607443	0	0	0.22953	0	0	0.002	0.003303	0.239908	0	0	0.008	0.009438	416.0554	0	0	0.01414	0	0	0.06555	0	0	0.304424	0	0	0	0	0	0.346566	0	0	0	0	0.0031	1.619672	0	0	0.003942	0	0
San Mateo	2026	LDT1	Aggregate	Aggregate	Electricity	141.9822	5160.147	0	5160.147	697.0716	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LDT1	Aggregate	Aggregate	Plug-in Hyb	104.7443	3837.146	1635.987	2201.159	433.1175	0.002739	0	0.117199	0.00033	0	0.001308	0.002	0.001349	0.000359	0	0.001423	0.008	0.003854	115.021	0	69.49428	0.000347	0	0.041425	0.000453	0	0.019385	0.001151	0	0.176635	0.02329	0.019927	0.265458	0.00168	0	0.193393	0.02329	0.019927	0.265458	0.017907	0.171654	0	1.37819	0.001137	0	0.000687
San Mateo	2026	LDT2	Aggregate	Aggregate	Gasoline	169697.7	5206694	5206694	0	813724.2	0.039564	0	0.246415	0.001061	0	0.001756	0.002	0.002732	0.001154	0	0.001909	0.008	0.007806	320.9048	0	80.65979	0.001836	0	0.062615	0.004145	0	0.031058	0.006772	0	0.280198	0.053684	0.140038	0.877766	0.009881	0	0.306782	0.053684	0.140038	0.877766	0.039596	0.591205	0	2.920622	0.003172	0	0.000797
San Mateo	2026	LDT2	Aggregate	Aggregate	Diesel	655.1696	19853.42	19853.42	0	3139.478	0.033548	0	0	0.004079	0	0	0.002	0.002751	0.004264	0	0	0.008	0.00786	298.5166	0	0	0.000555	0	0	0.047031	0	0	0.011952	0	0	0	0	0	0.013607	0	0	0	0	0.0031	0.11634	0	0	0.002829	0	0
San Mateo	2026	LDT2	Aggregate	Aggregate	Electricity	2139.962	58794.02	58794.02	0	58794.02	10836.18	0	0	0	0	0	0.002	0.001528	0	0	0	0.008	0.004364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LDT2	Aggregate	Aggregate	Plug-in Hyb	2330.737	81093.05	36145.09	44947.96	9637.596	0.002864	0	0.117199	0.000395	0	0.001497	0.002	0.002342	0.000443	0	0.001628	0.008	0.003835	120.2461	0	76.22509	0.000362	0	0.041388	0.000473	0	0.01935	0.001204	0	0.176635	0.024917	0.022518	0.286085	0.001756	0	0.193393	0.024917	0.022518	0.286085	0.018711	0.179452	0	1.37819	0.001189	0	0.000754
San Mateo	2026	LHDT1	Aggregate	Aggregate	Gasoline	12091.27	409379.7	409379.7	0	180141.9	0.082078	0.031581	0.525207	0.001324	0	0.000197	0.002	0.0273	0.00144	0	0.000214	0.008	0.078	811.9901	114.3649	26.27179	0.004327	0.101211	0.026073	0.004771	0.00278	0.045144	0.020676	0.362188	0.125413	0.029477	0.164217	1.658906	0.03017	0.528503	0.137311	0.029477	0.164217	1.658906	0.044975	0.843514	3.767862	3.376982	0.008027	0.001131	0.00026
San Mateo	2026	LHDT1	Aggregate	Aggregate	Diesel	5774.561	207453.3	207453.3	0	72636.71	0.759826	1.425846	0	0.020834	0.026593	0	0.003	0.0273	0.021776	0.027795	0	0.012	0.078	618.0427	123.4649	0	0.005378	0.005098	0	0.097373	0.019452	0	0.11579	0.10976	0	0	0	0	0.131819	0.124954	0	0	0	0	0.199971	0.278839	0.909745	0	0.005856	0.00117	0
San Mateo	2026	LHDT1	Aggregate	Aggregate	Electricity	302.9677	15691.66	0	15691.66	4239.881	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	LHDT2	Aggregate	Aggregate	Gasoline	1390.219	45322.23	45322.23	0	20712.2	0.089949	0.030134	0.521013	0.001251	0	0.000168	0.002	0.03185	0.001361	0	0.000183	0.008	0.091	916.2773	132.4121	24.82523	0.00347	0.095994	0.025248	0.005641	0.002576	0.043086	0.015364	0.345713	0.121706	0.030304	0.166922	1.734893	0.02242	0.504463	0.133253	0.030304	0.166922	1.734893	0.044997	0.721895	3.771186	3.317909	0.009058	0.001309	0.000245
San Mateo	2026	LHDT2	Aggregate	Aggregate	Diesel	2589.799	92139.39	92139.39	0	32576.42	0.594292	1.367929	0	0.019861	0.026777	0	0.003	0.03185	0.020759	0.027987	0	0.012	0.091	726.711	197.0583	0	0.00529	0.005098	0	0.114494	0.031047	0	0.113884	0.10976	0	0	0	0	0.129649	0.124954	0	0	0	0	0.206359	0.253765	0.909745	0	0.006886	0.001867	0
San Mateo	2026	LHDT2	Aggregate	Aggregate	Electricity	77.23784	3810.55	0	3810.55	1024.59	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	MCY	Aggregate	Aggregate	Gasoline	14692.86	80438.96	80438.96	0	29385.71	0.495123	0	0.110033	0.001908	0	0.003479	0.001	0.0042	0.002043	0	0.003711	0.004	0.012	186.0574	0	43.36877	0.137447	0	0.160662	0.036006	0	0.006719	0.86185	0	1.169727	3.545629	3.697544	3.067415	1.052189	0	1.272239	3.545629	3.697544	3.067415	0.008894	10.37381	0	7.649946	0.001839	0	0.000429
San Mateo	2026	MDV	Aggregate	Aggregate	Gasoline	95415.04	2995462	2995462	0	456021.9	0.045043	0	0.280293	0.001049	0	0.001787	0.002	0.002752	0.001141	0	0.001943	0.008	0.007862	387.4402	0	97.80051	0.002014	0	0.069417	0.004439	0	0.032516	0.007733	0	0.326682	0.058677	0.159655	0.988966	0.011284	0	0.357675	0.058677	0.159655	0.988966	0.039732	0.608979	0	3.043816	0.00383	0	0.000967
San Mateo	2026	MDV	Aggregate	Aggregate	Diesel	1264.364	38163.09	38163.09	0	5993.722	0.029639	0	0	0.00336	0	0	0.002	0.002815	0.003512	0	0	0.008	0.008044	391.9984	0	0	0.000371	0	0	0.06176	0	0	0.007978	0	0	0	0	0	0.009083	0	0	0	0	0.0031	0.162819	0	0	0.003714	0	0
San Mateo	2026	MDV	Aggregate	Aggregate	Electricity	2288.176	62843.93	0	62843.93	11585.67	0	0	0	0	0	0	0.002	0.001528	0	0	0	0.008	0.004365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	MDV	Aggregate	Aggregate	Plug-in Hyb	1352.288	48514.48	21600.3	26914.18	5591.711	0.00286	0	0.117199	0.000424	0	0.001613	0.002	0.001343	0.000461	0	0.001754	0.008	0.003836	120.1141	0	93.09493	0.000363	0	0.041542	0.000476	0	0.019493	0.001202	0	0.176635	0.027524	0.02439	0.302424	0.001754	0	0.193393	0.027524	0.02439	0.302424	0.0187	0.179255	0	1.37819	0.001187	0	0.00092
San Mateo	2026	MH	Aggregate	Aggregate	Gasoline	860.1629	8288.685	8288.685	0	86.0507	0.23256	0	0.397384	0.001512	0	0.000384	0.003	0.015756	0.001645	0	0.000418	0.012	0.045017	1945.826	0	31.10578	0.008668	0	0.035239	0.017644	0	0.044254	0.033949	0	0.14164	7.387206	0.177323	2.704624	0.049538	0	0.155079	7.387206	0.177323	2.704624	0.044967	0.720477	0	3.190918	0.019236	0	0.000308
San Mateo	2026	MH	Aggregate	Aggregate	Diesel	411.7686	4016.353	4016.353	0	41.17686	2.902322	0	0	0.040701	0	0	0.004	0.015675	0.042542	0	0	0.016	0.044785	1086.443	0	0	0.004006	0	0	0.17117	0	0	0.086257	0	0	0	0	0	0.098197	0	0	0	0	0.198004	0.264984	0	0	0.010295	0	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Gasoline	848.5573	48169.43	48169.43	0	16977.94	0.269412	0.081996	0.401399	0.001349	0	0.000495	0.003	0.015756	0.001467	0	0.000539	0.012	0.045017	1697.118	512.7637	43.45365	0.008779	0.269455	0.043465	0.015276	0.007246	0.033229	0.041527	1.019578	0.229834	0.024222	0.200008	1.911848	0.060596	1.487766	0.251639	0.024222	0.200008	1.911848	0.044997	0.830138	15.19618	5.005077	0.016778	0.005069	0.00043
San Mateo	2026	MHDT	Aggregate	Aggregate	Diesel	4345.03	177809.3	177809.3	0	52490.37	1.079543	12.71716	1.615228	0.011982	0.022721	0	0.003	0.015982	0.012524	0.023749	0	0.012	0.045664	1138.556	2209.16	0	0.001294	0.010675	0	0.17938	0.348054	0	0.027853	0.229832	0	0	0	0	0.031709	0.261646	0	0	0	0	0.211826	0.108771	7.505293	0	0.010781	0.020919	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Electricity	76.01194	4276.512	0	4276.512	1058.544	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022717	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Natural Ga	48.05658	2179.843	2179.843	0	442.254	0.112977	6.480284	0	0.001327	0.019663	0	0.003	0.016091	0.001443	0.021385	0	0.012	0.045974	991.4871	5407.178	0	0.778786	16.68583	0	0.202121	1.102289	0	0.011127	0.238408	0	0	0	0	0.794808	17.02911	0	0	0	0	1.06	3.063718	38.15558	0	0	0	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Gasoline	250.2122	13078.36	13078.36	0	5006.245	0.228578	0.061817	0.359747	0.001067	0	0.000285	0.003	0.01568	0.00116	0	0.00031	0.012	0.044799	1687.446	365.3109	29.42229	0.006927	0.20465	0.03203	0.013867	0.005591	0.030955	0.031574	0.747709	0.159032	0.025716	0.122353	2.090543	0.046073	1.091056	0.17412	0.025716	0.122353	2.090543	0.044974	0.662703	5.783272	3.284676	0.016682	0.003611	0.000291
San Mateo	2026	OBUS	Aggregate	Aggregate	Diesel	1145.492	75611.47	75611.47	0	11233.17	0.7922	5.412165	1.482498	0.00906	0.003089	0	0.003	0.017403	0.00947	0.003228	0	0.012	0.049724	1214.431	1202.439	0	0.000896	0.014277	0	0.191334	0.189445	0	0.019283	0.307371	0	0	0	0	0.021953	0.349919	0	0	0	0	0.21794	0.09136	5.733335	0	0.0115	0.011386	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Electricity	3.59381	297.3898	0	297.3898	71.90495	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	OBUS	Aggregate	Aggregate	Natural Ga	10.41211	669.454	669.454	0	92.66776	0.14486	1.520375	0	0.001277	0.004306	0	0.003	0.016148	0.001389	0.004683	0	0.012	0.046137	977.2919	1192.33	0	0.814665	4.026517	0	0.199227	0.243064	0	0.01164	0.057531	0	0	0	0	0.831426	4.109356	0	0	0	0	1.06	3.321327	8.269436	0	0	0	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Gasoline	75.66977	3792.283	3792.283	0	302.6791	0.689408	0.850076	0.614008	0.001104	0	0.000723	0.002	0.015721	0.001201	0	0.000787	0.008	0.044917	775.7798	2481.854	58.67483	0.015917	2.447247	0.082067	0.033238	0.080267	0.056021	0.077973	10.62297	0.474628	0.118813	0.369995	1.975658	0.113778	15.50102	0.519658	0.118813	0.369995	1.975658	0.045	1.98957	82.12826	11.72979	0.007669	0.024536	0.00058
San Mateo	2026	SBUS	Aggregate	Aggregate	Diesel	168.4764	3737.054	3737.054	0	2439.538	4.092097	21.8241	0.494851	0.019631	0.01977	0	0.003	0.015721	0.020519	0.020664	0	0.012	0.044917	1133.73	2214.261	0	0.002862	0.008051	0	0.17862	0.348858	0	0.06162	0.173331	0	0	0	0	0.07015	0.197325	0	0	0	0	0.149335	0.189386	4.685291	0	0.010736	0.020968	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Electricity	3.281397	127.7057	0	127.7057	29.50964	0	0	0	0	0	0	0.002326	0.00786	0	0	0	0.009303	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	SBUS	Aggregate	Aggregate	Natural Ga	6.807777	168.2676	168.2676	0	98.5766	0.49789	5.22911	0	0.003378	0.012354	0	0.003	0.015721	0.003674	0.013436	0	0.012	0.044917	1228.474	4102.954	0	3.247338	14.74074	0	0.250432	0.836414	0	0.046398	0.210616	0	0	0	0	3.314147	15.044	0	0	0	0	1.06	10.75802	22.99417	0	0	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Gasoline	61.80696	4202.678	4202.678	0	247.2278	0.033837	0	0.38239	0.001186	0	0.000163	0.002	0.002073	0.032333	0.00129	0	0.000177	0.00829	0.092379	954.5156	0	39.0065	0.001796	0	0.036113	0.004527	0	0.057552	0.005058	0	0.130834	0.029473	0.090867	0.345962	0.007381	0	0.143246	0.029473	0.090867	0.345962	0.045	0.558823	0	6.549286	0.009436	0	0.000386
San Mateo	2026	UBUS	Aggregate	Aggregate	Diesel	278.8478	21575.87	21575.87	0	1115.391	0.37554	0	0	0.006827	0	0	0.008	0.0385	0.007135	0	0	0.032386	0.11	1223.487	0	0	0.035145	0	0	0.192761	0	0	0.067715	0	0	0	0	0	0.077089	0	0	0	0	0.22	0.07719	0	0	0.011593	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Electricity	37.55556	3889.774	0	3889.774	150.2222	0	0	0	0	0	0	0.007	0.01925	0	0	0	0.029483	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2026	UBUS	Aggregate	Aggregate	Natural Ga	65.76966	4554.21	4554.21	0	263.0787	0.055441	0	0	0.000272	0	0	0.007743	0.0385	0.000285	0	0	0.030972	0.11	1262.837	0	0	4.101249	0	0	0.257438	0	0	0.058599	0	0	0	0	0	4.185626	0	0	0	0	0.97	46.51887	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2027
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLE	PM10_STR	PM10_PM	PM10_PM	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2027	HHDT	Aggregate	Aggregate	Gasoline	4.22201	465.9735	465.9735	0	84.47398	3.784401	0	0.001809	0.00137	0	0.000612	0.005	0.031101	0.00149	0	0.000666	0.02	0.088859	2187.915	0	50.77401	0.10848	0	9.38E-05	0.147815	0	9.4E-05	0.529357	0	0.000508	0.02999	0.222639	2.054582	0.772437	0	0.000556	0.02999	0.222639	2.054582	0.045	33.09537	0	4.725369	0.021613	0	0.000502
San Mateo	2027	HHDT	Aggregate	Aggregate	Diesel	1346.151	1193744.9	1193744.9	0	15003.58	2.407204	45.79156	3.064838	0.024107	0.029271	0	0.008607	0.030209	0.025197	0.030595	0	0.034429	0.086312	1721.1	7957.443	0	0.001113	0.159723	0	0.27116	1.253698	0	0.023958	3.438793	0	0	0	0	0.027275	3.914804	0	0	0	0	0.203961	0.103951	48.72467	0	0.016298	0.073352	0
San Mateo	2027	HHDT	Aggregate	Aggregate	Electricity	27.72379	2533.074	0	2533.074	269.7516	0	0	0	0	0	0	0	0.008486	0.017473	0	0	0.033946	0.049922	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	HHDT	Aggregate	Aggregate	Natural Ga	199.6437	12874.54	12874.54	0	1300.878	1.084345	7.803952	0	0.001553	0.012198	0	0.009	0.061541	0.001689	0.013266	0	0.036	0.175831	1433.526	8133.569	0	2.341828	20.00939	0	0.292234	1.658081	0	0.049129	0.313051	0	0	0	0	2.407859	20.45199	0	0	0	0	0.706678	14.49829	60.40274	0	0	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Gasoline	238471.3	6787745	6787745	0	1118595	0.029557	0	0.217198	0.001019	0	0.001761	0.002	0.002348	0.001108	0	0.001916	0.008	0.00671	260.24	0	65.45509	0.001542	0	0.056785	0.00365	0	0.02841	0.00568	0	0.260517	0.07439	0.198496	1.18951	0.038288	0	0.285234	0.07439	0.198496	1.18951	0.038281	0.547784	0	2.718673	0.002573	0	0.000647
San Mateo	2027	LDA	Aggregate	Aggregate	Diesel	577.8306	11859.15	11859.15	0	2430.953	0.125063	0	0	0.008723	0	0	0.002	0.002417	0.009117	0	0	0.008	0.006905	225.6727	0	0	0.000794	0	0	0.035555	0	0	0.01709	0	0	0	0	0	0.019456	0	0	0	0	0	0.0031	0.267761	0	0	0.002138	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Electricity	21755.83	763478.8	0	763478.8	106722.5	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDA	Aggregate	Aggregate	Plug-in Hyb	8813.935	285623.3	131294.8	154328.5	36445.62	0.002953	0	0.117199	0.000473	0	0.001738	0.002	0.001338	0.000514	0	0.00189	0.008	0.003824	124.0113	0	63.10234	0.000372	0	0.041171	0.000483	0	0.019149	0.001241	0	0.176635	0.03859	0.038322	0.416371	0.001811	0	0.193393	0.03859	0.038322	0.416371	0.018683	0.185073	0	1.37819	0.001226	0	0.000624
San Mateo	2027	LDT1	Aggregate	Aggregate	Gasoline	26419.18	713999.1	713999.1	0	121334.5	0.069103	0	0.27581	0.001241	0	0.002022	0.002	0.002818	0.001349	0	0.002199	0.008	0.008051	303.9903	0	77.82677	0.003215	0	0.071337	0.005799	0	0.031466	0.01376	0	0.349477	0.105239	0.292408	1.687165	0.020078	0	0.382633	0.105239	0.292408	1.687165	0.03886	0.838518	0	3.597733	0.003005	0	0.000769
San Mateo	2027	LDT1	Aggregate	Aggregate	Diesel	1.374283	18.5258	18.5258	0	4.138205	0.988299	0	0	0.1471	0	0	0.002	0.003155	0.153751	0	0	0.008	0.009016	380.9834	0	0	0.011093	0	0	0.060024	0	0	0.238825	0	0	0	0	0	0.271887	0	0	0	0	0	0.0031	1.735378	0	0	0.00361	0	0
San Mateo	2027	LDT1	Aggregate	Aggregate	Electricity	175.6332	6297.196	0	6297.196	865.6909	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004373	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDT1	Aggregate	Aggregate	Plug-in Hyb	134.7957	4749.74	2001.346	2748.394	557.3801	0.002707	0	0.117199	0.000303	0	0.001221	0.002	0.001352	0.00033	0	0.001328	0.008	0.003862	113.6736	0	68.8472	0.000341	0	0.041159	0.000442	0	0.019137	0.001138	0	0.176635	0.023077	0.019848	0.265427	0.00166	0	0.193393	0.023077	0.019848	0.265427	0.017697	0.169645	0	1.37819	0.001124	0	0.000681
San Mateo	2027	LDT2	Aggregate	Aggregate	Gasoline	179414.4	5337772	5337772	0	859058.8	0.036713	0	0.236885	0.001002	0	0.001674	0.002	0.002741	0.00109	0	0.00182	0.008	0.00783	316.0459	0	79.2393	0.001725	0	0.059485	0.003982	0	0.030367	0.006284	0	0.264449	0.051332	0.135343	0.845955	0.00917	0	0.289538	0.051332	0.135343	0.845955	0.040019	0.572376	0	2.798095	0.003124	0	0.000783
San Mateo	2027	LDT2	Aggregate	Aggregate	Diesel	689.4223	20263.35	20263.35	0	3297.619	0.031701	0	0	0.003958	0	0	0.002	0.002756	0.004137	0	0	0.008	0.007875	293.9769	0	0	0.000547	0	0	0.046316	0	0	0.011786	0	0	0	0	0	0.013417	0	0	0	0	0	0.0031	0.115725	0	0	0.002786	0	0
San Mateo	2027	LDT2	Aggregate	Aggregate	Electricity	2621.122	69186.62	0	69186.62	13210.51	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LDT2	Aggregate	Aggregate	Plug-in Hyb	2686.495	89530.08	39333.03	50197.05	11108.66	0.002822	0	0.117199	0.000367	0	0.001415	0.002	0.001346	0.000399	0	0.001539	0.008	0.003845	118.5212	0	75.57262	0.000355	0	0.041086	0.000459	0	0.01907	0.001186	0	0.176635	0.025013	0.022284	0.283634	0.001731	0	0.193393	0.025013	0.022284	0.283634	0.018444	0.176879	0	1.37819	0.001172	0	0.000747
San Mateo	2027	LHDT1	Aggregate	Aggregate	Gasoline	12519.56	410499.8	410499.8	0	186522.8	0.072401	0.030667	0.505801	0.001305	0	0.000184	0.002	0.0273	0.001419	0	0.0002	0.008	0.078	802.6261	113.4583	26.05478	0.003836	0.098555	0.025023	0.004246	0.002719	0.043775	0.018096	0.351746	0.119942	0.027725	0.156123	1.578557	0.026406	0.513267	0.133122	0.027725	0.156123	1.578557	0.044987	0.808003	3.769346	3.38625	0.007935	0.001122	0.000258
San Mateo	2027	LHDT1	Aggregate	Aggregate	Diesel	6121.922	212564.8	212564.8	0	77006.08	0.667178	1.348518	0	0.019684	0.026527	0	0.003	0.0273	0.020574	0.027726	0	0.012	0.078	615.5765	122.1868	0	0.005114	0.005098	0	0.096984	0.019251	0	0.110092	0.10976	0	0	0	0	0.125333	0.124954	0	0	0	0	0.203121	0.261855	0.909745	0	0.005833	0.001158	0
San Mateo	2027	LHDT1	Aggregate	Aggregate	Electricity	519.4144	25488.91	0	25488.91	7271.182	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	LHDT2	Aggregate	Aggregate	Gasoline	1431.729	45337.82	45337.82	0	21330.63	0.077643	0.029036	0.498496	0.001227	0	0.000155	0.002	0.03185	0.001334	0	0.000168	0.008	0.091	905.6598	131.3222	24.61878	0.002978	0.092887	0.023985	0.004985	0.002508	0.041598	0.012914	0.333181	0.114904	0.028288	0.158472	1.660759	0.018844	0.486177	0.125806	0.028288	0.158472	1.660759	0.045	0.687204	3.773249	3.317151	0.008953	0.001298	0.000243
San Mateo	2027	LHDT2	Aggregate	Aggregate	Diesel	2777.037	94986.53	94986.53	0	34931.64	0.539543	1.299818	0	0.019303	0.02677	0	0.003	0.03185	0.020176	0.02798	0	0.012	0.091	722.452	195.305	0	0.005137	0.005098	0	0.113823	0.03077	0	0.110593	0.10976	0	0	0	0	0.125902	0.124954	0	0	0	0	0.208358	0.246416	0.909745	0	0.006846	0.001851	0
San Mateo	2027	LHDT2	Aggregate	Aggregate	Electricity	131.984	6178.283	0	6178.283	1750.724	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MCY	Aggregate	Aggregate	Gasoline	15361.78	81910.47	81910.47	0	30723.56	0.487065	0	0.103341	0.001915	0	0.003454	0.001	0.0042	0.002051	0	0.003688	0.004	0.012	185.7732	0	42.22847	0.134785	0	0.155421	0.035689	0	0.006376	0.837827	0	1.124359	3.543525	3.694561	2.980616	1.026866	0	1.223091	3.543525	3.694561	2.980616	0.009015	10.14745	0	7.620964	0.001837	0	0.000417
San Mateo	2027	MDV	Aggregate	Aggregate	Gasoline	100853.9	3072334	3072334	0	481493.9	0.040639	0	0.264467	0.000989	0	0.001695	0.002	0.002761	0.001075	0	0.001844	0.008	0.007889	381.641	0	96.08948	0.001858	0	0.065023	0.004199	0	0.031612	0.007009	0	0.302374	0.055687	0.152422	0.944599	0.010227	0	0.331061	0.055687	0.152422	0.944599	0.040108	0.585727	0	2.900745	0.003773	0	0.00095
San Mateo	2027	MDV	Aggregate	Aggregate	Diesel	1306.722	38182.61	38182.61	0	6183.555	0.025409	0	0	0.002915	0	0	0.002	0.002822	0.003047	0	0	0.008	0.008064	386.2665	0	0	0.000339	0	0	0.060856	0	0	0.007306	0	0	0	0	0	0.008318	0	0	0	0	0	0.0031	0.158269	0	0	0.00366	0	0
San Mateo	2027	MDV	Aggregate	Aggregate	Electricity	2770.892	73029.24	0	73029.24	13959.05	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.004368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MDV	Aggregate	Aggregate	Plug-in Hyb	1580.566	54464.83	23853.74	30611.09	6535.639	0.002814	0	0.117199	0.000387	0	0.001503	0.002	0.001347	0.000421	0	0.001634	0.008	0.003848	118.1538	0	92.13035	0.000355	0	0.041243	0.000462	0	0.019216	0.001183	0	0.176635	0.027198	0.0246	0.30315	0.001726	0	0.193393	0.027198	0.0246	0.30315	0.018395	0.176331	0	1.37819	0.001168	0	0.000911
San Mateo	2027	MH	Aggregate	Aggregate	Gasoline	889.7275	8482.343	8482.343	0	89.00834	0.205598	0	0.394341	0.001477	0	0.000374	0.003	0.015756	0.001606	0	0.000407	0.012	0.045017	1945.602	0	30.91944	0.007677	0	0.034481	0.016471	0	0.044506	0.029111	0	0.136554	6.497034	0.156813	2.414317	0.042478	0	0.149509	6.497034	0.156813	2.414317	0.044981	0.592155	0	3.084243	0.019234	0	0.000306
San Mateo	2027	MH	Aggregate	Aggregate	Diesel	438.9117	4153.858	4153.858	0	43.89117	2.832054	0	0	0.037464	0	0	0.004	0.015675	0.039158	0	0	0.016	0.044785	1086.701	0	0	0.003935	0	0	0.17121	0	0	0.084726	0	0	0	0	0	0.096455	0	0	0	0	0	0.20065	0.258294	0	0	0.010297	0	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Gasoline	867.5241	48390.56	48390.56	0	17357.42	0.227578	0.078989	0.386341	0.001347	0	0.000485	0.003	0.015756	0.001465	0	0.000528	0.012	0.045017	1680.333	507.7545	42.67241	0.007475	0.271014	0.042102	0.013626	0.007061	0.032711	0.034686	1.021219	0.219918	0.022149	0.184846	1.785685	0.050614	1.490161	0.240782	0.022149	0.184846	1.785685	0.045	0.678531	15.21525	4.76187	0.016612	0.00502	0.000422
San Mateo	2027	MHDT	Aggregate	Aggregate	Diesel	4381.456	17745.11	17745.1	0	52965.25	0.98012	12.36142	1.609464	0.01032	0.018608	0	0.003	0.015983	0.010787	0.019449	0	0.012	0.045664	1131.943	2189.732	0	0.001114	0.010178	0	0.178338	0.344993	0	0.023977	0.219127	0	0	0	0	0.027296	0.24946	0	0	0	0	0.213081	0.098415	7.494036	0	0.010719	0.020735	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Electricity	127.7802	7032.616	0	7032.616	1769.648	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	MHDT	Aggregate	Aggregate	Natural Ga	51.5504	2296.644	2296.644	0	479.4474	0.107496	6.432876	0	0.001352	0.019879	0	0.003	0.016088	0.001471	0.021621	0	0.012	0.045965	986.2486	5381.374	0	0.780237	16.43266	0	0.201053	1.097028	0	0.011148	0.23479	0	0	0	0	0.796289	16.77073	0	0	0	0	1.06	3.061376	38.67694	0	0	0	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Gasoline	248.2101	12473.77	12473.77	0	4966.188	0.211311	0.060192	0.357193	0.00109	0	0.00029	0.003	0.01568	0.001186	0	0.000315	0.012	0.044799	1671.441	362.8494	29.18588	0.006456	0.203928	0.031666	0.013066	0.005413	0.030606	0.029254	0.747798	0.15748	0.025953	0.127029	2.17	0.042687	1.091184	0.172421	0.025953	0.127029	2.17	0.044975	0.611503	5.783803	3.243094	0.016524	0.003587	0.000289
San Mateo	2027	OBUS	Aggregate	Aggregate	Diesel	1179.467	75909.96	75909.96	0	11575.44	0.775196	5.241419	1.466802	0.008873	0.002989	0	0.003	0.017435	0.009274	0.003124	0	0.012	0.049814	1200.115	1193.83	0	0.000878	0.014362	0	0.189079	0.188088	0	0.018903	0.309216	0	0	0	0	0.021519	0.352019	0	0	0	0	0.218013	0.090292	5.765682	0	0.011364	0.011305	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Electricity	5.720233	456.3866	0	456.3866	114.4504	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	OBUS	Aggregate	Aggregate	Natural Ga	11.58861	747.5342	747.5342	0	103.1386	0.129807	1.513364	0	0.001349	0.004473	0	0.003	0.016148	0.001467	0.004865	0	0.012	0.046137	963.6185	1186.95	0	0.822922	3.939956	0	0.19644	0.241968	0	0.011758	0.056294	0	0	0	0	0.839853	4.021014	0	0	0	0	1.06	3.343572	8.646482	0	0	0	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Gasoline	79.46692	3883.503	3883.503	0	317.9877	0.632481	0.822307	0.600742	0.001079	0	0.000721	0.002	0.015721	0.001174	0	0.000784	0.008	0.044917	769.995	2465.835	57.55214	0.014081	2.448145	0.080367	0.03084	0.078539	0.055535	0.068887	10.63221	0.464416	0.112849	0.357376	1.946706	0.100519	15.51596	0.508477	0.112849	0.357376	1.946706	0.045	1.780147	82.19044	11.21377	0.007612	0.024377	0.000569
San Mateo	2027	SBUS	Aggregate	Aggregate	Diesel	167.5641	3706.878	3706.878	0	2426.328	3.793477	21.05041	0.5128	0.018391	0.017915	0	0.003	0.015721	0.019223	0.018725	0	0.012	0.044917	1128.583	2201.776	0	0.002731	0.008003	0	0.177809	0.346891	0	0.058797	0.172299	0	0	0	0	0.066936	0.196149	0	0	0	0	0.15435	0.182463	4.828329	0	0.010687	0.02085	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Electricity	5.310741	202.8314	0	202.8314	47.87691	0	0	0	0	0	0	0.002	0.002333	0.00786	0	0	0	0.009332	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	SBUS	Aggregate	Aggregate	Natural Ga	7.053679	172.5017	172.5017	0	102.1373	0.481743	5.219695	0	0.003378	0.012579	0	0.003	0.015721	0.003674	0.01368	0	0.012	0.044917	1220.305	4108.986	0	3.202788	14.62449	0	0.248767	0.837644	0	0.045762	0.208955	0	0	0	0	3.26868	14.92537	0	0	0	0	1.06	10.54837	23.50051	0	0	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Gasoline	61.98533	4214.564	4214.564	0	247.9413	0.036041	0	0.380804	0.001186	0	0.000163	0.002	0.002072	0.032332	0.00129	0	0.000177	0.00829	0.092377	954.3343	0	38.82137	0.001768	0	0.036766	0.004675	0	0.057249	0.004986	0	0.133306	0.032636	0.102703	0.407958	0.007275	0	0.145953	0.032636	0.102703	0.407958	0.045	0.565023	0	6.43097	0.009435	0	0.000384
San Mateo	2027	UBUS	Aggregate	Aggregate	Diesel	279.2472	21607.25	21607.25	0	1116.989	0.375529	0	0.006826	0	0	0	0.002	0.008096	0.0385	0.007135	0	0	0.032385	0.11	1223.405	0	0	0.007145	0	0	0.192748	0	0	0.067714	0	0	0	0	0.077087	0	0	0	0	0	0.22	0.077188	0	0	0.011592	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Electricity	38.11938	3934.273	0	3934.273	152.4775	0	0	0	0	0	0	0.002	0.007377	0.01925	0	0	0	0.029507	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2027	UBUS	Aggregate	Aggregate	Natural Ga	65.93105	4566.887	4566.887	0	263.7242	0.055445	0	0	0.000272	0	0	0.007744	0.0385	0.000285	0	0	0	0.030974	0.11	1262.884	0	0	4.101438	0	0	0.257447	0	0	0.058601	0	0	0	0	4.185818	0	0	0	0	0	0.97	46.52216	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_DIA	PM2.5_PMT	PM2.5_PMP	PM10_RUI	PM10_IDLE	PM10_STR	PM10_PMT	PM10_PMP	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2030	HHDT	Aggregate	Aggregate	Gasoline	3.582613	348.8502	348.8502	0	71.68092	3.309536	0	0.000636	0.001281	0	0.000408	0.005	0.031258	0.001393	0	0.000444	0.02	0.08931	2124.112	0	48.3003	0.102341	0	7.44E-05	0.139473	0	4.21E-05	0.479172	0	0.000403	0.0158	0.095238	1.146877	0.699207	0	0.000441	0.0158	0.095238	1.146877	0.045	32.18037	0	4.037713	0.020999	0	0.000477
San Mateo	2030	HHDT	Aggregate	Aggregate	Diesel	1338.439	117080	117080	0	15181.71	2.116368	45.39119	3.044846	0.023283	0.023862	0	0.008615	0.030087	0.024335	0.024941	0	0.03446	0.085963	1627.718	7731.446	0	0.000972	0.162527	0	0.256448	1.218092	0	0.020928	3.499162	0	0	0	0	0.023825	3.98353	0	0	0	0	0.207747	0.090912	50.23689	0	0.015414	0.073212	0
San Mateo	2030	HHDT	Aggregate	Aggregate	Electricity	84.88807	7748.726	0	7748.726	800.5398	0	0	0	0	0	0	0.00845	0.017769	0	0	0	0	0.033801	0.050769	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	HHDT	Aggregate	Aggregate	Natural Ga	216.9868	13750.35	13750.35	0	1391.47	0.831786	6.734329	0	0.001446	0.012428	0	0.009	0.062879	0.001573	0.013516	0	0.036	0.179654	1389.59	7977.287	0	1.838591	17.41083	0	0.283277	1.626222	0	0.037223	0.267421	0	0	0	0	1.888896	17.79029	0	0	0	0	0.693529	12.98287	57.90215	0	0	0	0
San Mateo	2030	LDA	Aggregate	Aggregate	Gasoline	237797.8	6358120	6358120	0	1114767	0.025015	0	0.198441	0.00084	0	0.0015	0.002	0.002348	0.000914	0	0.001631	0.008	0.006709	250.3795	0	62.47074	0.001264	0	0.048749	0.003327	0	0.026593	0.004452	0	0.219797	0.064961	0.182842	1.100035	0.406497	0	0.24065	0.064961	0.182842	1.100035	0.039859	0.49519	0	2.387223	0.002475	0	0.000618
San Mateo	2030	LDA	Aggregate	Aggregate	Diesel	401.2092	8094.892	8094.892	0	1723.63	0.081629	0	0	0.005614	0	0	0.002	0.002417	0.005867	0	0	0.008	0.006907	217.7249	0	0	0.000572	0	0	0.034303	0	0	0.012309	0	0	0	0	0	0.014013	0	0	0	0	0	0.0031	0.228322	0	0	0.002063	0	0
San Mateo	2030	LDA	Aggregate	Aggregate	Electricity	25244.08	809588.1	0	809588.1	122638.4	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.004381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LDA	Aggregate	Aggregate	Plug-in Hyb	9770.495	287561.1	127243.4	160317.7	40401	0.002843	0	0.117199	0.000375	0	0.001465	0.002	0.001348	0.000407	0	0.001593	0.008	0.00385	119.3761	0	61.72963	0.000352	0	0.040464	0.000449	0	0.018494	0.001195	0	0.176635	0.03873	0.045962	0.467089	0.001743	0	0.193393	0.03873	0.045962	0.467089	0.018225	0.17816	0	1.37819	0.00118	0	0.00061
San Mateo	2030	LDT1	Aggregate	Aggregate	Gasoline	27717.91	705667.7	705667.7	0	127669.4	0.047693	0	0.23518	0.000977	0	0.001648	0.002	0.002822	0.001063	0	0.001793	0.008	0.008064	291.8441	0	73.503	0.00227	0	0.057547	0.004614	0	0.028888	0.009274	0	0.271146	0.085215	0.246386	1.458315	0.013533	0	0.29687	0.085215	0.246386	1.458315	0.038865	0.675828	0	2.884818	0.002885	0	0.000727
San Mateo	2030	LDT1	Aggregate	Aggregate	Diesel	0.204115	6.131891	6.131891	0	1.004394	0.025448	0	0	0.003365	0	0	0.002	0.002682	0.003517	0	0	0.008	0.007662	360.704	0	0	0.000511	0	0	0.056829	0	0	0.011001	0	0	0	0	0	0.012524	0	0	0	0	0	0.0031	0.101404	0	0	0.003418	0	0
San Mateo	2030	LDT1	Aggregate	Aggregate	Electricity	315.4332	10759.94	0	10759.94	1561.79	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LDT1	Aggregate	Aggregate	Plug-in Hyb	248.8694	7950.15	3286.476	4663.674	1029.075	0.002656	0	0.117199	0.000235	0	0.000982	0.002	0.001357	0.000256	0	0.001068	0.008	0.003878	111.5238	0	67.77418	0.000329	0	0.040538	0.000421	0	0.018562	0.001116	0	0.176635	0.022993	0.019942	0.267154	0.001629	0	0.193393	0.022993	0.019942	0.267154	0.017362	0.166441	0	1.37819	0.001103	0	0.00067
San Mateo	2030	LDT2	Aggregate	Aggregate	Gasoline	206077.5	5643289	5643289	0	980667.9	0.031039	0	0.220236	0.000827	0	0.001417	0.002	0.002768	0.000899	0	0.001541	0.008	0.007907	305.2696	0	76.05021	0.001503	0	0.052526	0.003653	0	0.029181	0.005296	0	0.229711	0.045237	0.123667	0.765395	0.007728	0	0.251505	0.045237	0.123667	0.765395	0.040897	0.539909	0	2.545867	0.003018	0	0.000752
San Mateo	2030	LDT2	Aggregate	Aggregate	Diesel	779.569	21227.36	21227.36	0	3709.708	0.028723	0	0	0.003778	0	0	0.002	0.002772	0.003949	0	0	0.008	0.00792	283.3526	0	0	0.000535	0	0	0.044642	0	0	0.011525	0	0	0	0	0	0.013121	0	0	0	0	0	0.0031	0.115181	0	0	0.002685	0	0
San Mateo	2030	LDT2	Aggregate	Aggregate	Electricity	4330.718	103349.1	0	103349.1	21553.59	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LDT2	Aggregate	Aggregate	Plug-in Hyb	3821.263	114216.7	48686.66	65530.03	15800.92	0.002739	0	0.117199	0.000291	0	0.001179	0.002	0.001354	0.000317	0	0.001283	0.008	0.003869	114.9986	0	74.21213	0.000338	0	0.040354	0.00043	0	0.018393	0.001151	0	0.176635	0.026073	0.02498	0.30357	0.001668	0	0.193393	0.026073	0.02498	0.30357	0.017899	0.171627	0	1.37819	0.001137	0	0.000734
San Mateo	2030	LHDT1	Aggregate	Aggregate	Gasoline	13418.94	401266.7	401266.7	0	199922.2	0.04859	0.028514	0.462341	0.001251	0	0.000149	0.002	0.0273	0.001361	0	0.000162	0.008	0.078	782.2571	111.312	25.41512	0.002474	0.092233	0.022399	0.003012	0.002564	0.040565	0.010703	0.327199	0.105404	0.022577	0.12944	1.313798	0.015618	0.477448	0.115404	0.022577	0.12944	1.313798	0.045	0.67997	3.773798	3.355298	0.007733	0.0011	0.000251
San Mateo	2030	LHDT1	Aggregate	Aggregate	Diesel	6950.283	217964.5	217964.5	0	87425.82	0.484943	1.179571	0	0.017739	0.02636	0	0.003	0.0273	0.018541	0.027552	0	0.012	0.078	610.5039	119.3947	0	0.004593	0.005098	0	0.096185	0.018811	0	0.098884	0.10976	0	0	0	0	0.112573	0.124954	0	0	0	0	0.209503	0.232836	0.909745	0	0.005785	0.001131	0
San Mateo	2030	LHDT1	Aggregate	Aggregate	Electricity	1651.837	70758.49	0	70758.49	23140.54	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	LHDT2	Aggregate	Aggregate	Gasoline	1516.427	44034.41	44034.41	0	22592.5	0.0535	0.026469	0.446387	0.001188	0	0.000128	0.002	0.03185	0.001292	0	0.000139	0.008	0.091	883.1295	128.7905	24.14624	0.002097	0.08544	0.021117	0.003676	0.002338	0.038045	0.00861	0.303836	0.099505	0.023317	0.135292	1.428649	0.012564	0.443356	0.108945	0.023317	0.135292	1.428649	0.045	0.63201	3.776933	3.316614	0.008731	0.001273	0.000239
San Mateo	2030	LHDT2	Aggregate	Aggregate	Diesel	3226.044	98642.37	98642.37	0	40579.57	0.436422	1.156649	0	0.01874	0.026765	0	0.003	0.03185	0.019587	0.027975	0	0.012	0.091	713.7283	191.5832	0	0.004866	0.005098	0	0.112448	0.030184	0	0.104751	0.10976	0	0	0	0	0.119253	0.124954	0	0	0	0	0.212304	0.238694	0.909745	0	0.006763	0.001815	0
San Mateo	2030	LHDT2	Aggregate	Aggregate	Electricity	416.7471	17085.75	0	17085.75	5526.66	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	MCY	Aggregate	Aggregate	Gasoline	17265.42	85331.57	85331.57	0	34530.84	0.471636	0	0.087961	0.00193	0	0.003402	0.001	0.0042	0.002069	0	0.003639	0.004	0.012	185.2558	0	39.68002	0.129549	0	0.143907	0.035104	0	0.005584	0.790266	0	1.025021	3.535952	3.670486	2.694632	0.977152	0	1.115488	3.535952	3.670486	2.694632	0.00908	9.714966	0	7.581403	0.001831	0	0.000392
San Mateo	2030	MDV	Aggregate	Aggregate	Gasoline	115764.2	3248131	3248131	0	549832.1	0.032414	0	0.238074	0.000811	0	0.001423	0.002	0.002792	0.000882	0	0.001547	0.008	0.007976	368.7759	0	92.22249	0.00155	0	0.05581	0.003744	0	0.030164	0.005553	0	0.251972	0.048156	0.134906	0.832269	0.008103	0	0.275878	0.048156	0.134906	0.832269	0.040906	0.545181	0	2.607134	0.003646	0	0.000912
San Mateo	2030	MDV	Aggregate	Aggregate	Diesel	1415.877	38111.74	38111.74	0	6658.508	0.017624	0	0	0.002054	0	0	0.002	0.002838	0.002147	0	0	0.008	0.008109	372.2787	0	0	0.000277	0	0	0.058653	0	0	0.005968	0	0	0	0	0	0.006794	0	0	0	0	0	0.0031	0.147116	0	0	0.003528	0	0
San Mateo	2030	MDV	Aggregate	Aggregate	Electricity	4329.635	102706.8	0	102706.8	21508.26	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	MDV	Aggregate	Aggregate	Plug-in Hyb	2286.849	70894.89	30074.66	40820.23	9456.121	0.002725	0	0.117199	0.000297	0	0.001215	0.002	0.001355	0.000323	0	0.001322	0.008	0.003872	114.4453	0	90.22943	0.000338	0	0.040515	0.000432	0	0.018541	0.001145	0	0.176635	0.026805	0.026275	0.314563	0.001671	0	0.193393	0.026805	0.026275	0.314563	0.017817	0.170801	0	1.37819	0.001131	0	0.000892
San Mateo	2030	MH	Aggregate	Aggregate	Gasoline	975.2695	8905.399	8905.399	0	97.56596	0.146497	0	0.389106	0.001397	0	0.00035	0.003	0.015756	0.001519	0	0.00038	0.012	0.045017	1945.035	0	30.49184	0.005338	0	0.03291	0.013993	0	0.045078	0.017368	0	0.125455	4.324204	0.104731	1.656784	0.025343	0	0.137357	4.324204	0.104731	1.656784	0.045	0.266588	0	2.838247	0.019229	0	0.000301
San Mateo	2030	MH	Aggregate	Aggregate	Diesel	518.1906	4498.521	4498.521	0	51.81906	2.677361	0	0	0.030184	0	0	0.004	0.015675	0.031549	0	0	0.016	0.044785	1087.256	0	0	0.003786	0	0	0.171298	0	0	0.081505	0	0	0	0	0	0.092788	0	0	0	0	0	0.206555	0.243761	0	0	0.010302	0	0
San Mateo	2030	MHDT	Aggregate	Aggregate	Gasoline	896.2067	46600.57	46600.57	0	17931.3	0.14535	0.071332	0.336727	0.001349	0	0.000468	0.003	0.015756	0.001468	0	0.000509	0.012	0.045017	1641.475	495.3697	40.83701	0.005139	0.272865	0.039358	0.010032	0.006541	0.029695	0.022413	1.024632	0.19997	0.016844	0.142325	1.402001	0.032705	1.49514	0.218942	0.016844	0.142325	1.402001	0.045	0.405969	15.25491	4.210824	0.016228	0.004897	0.000404
San Mateo	2030	MHDT	Aggregate	Aggregate	Diesel	4347.362	170380.4	170380.4	0	52605.86	0.755775	11.60663	1.523653	0.006958	0.010527	0	0.003	0.015983	0.007273	0.011003	0	0.012	0.045667	1112.069	2136.504	0	0.000749	0.00921	0	0.175207	0.336607	0	0.016126	0.198289	0	0	0	0	0.018358	0.225736	0	0	0	0	0.215702	0.077124	7.484208	0	0.010531	0.020231	0
San Mateo	2030	MHDT	Aggregate	Aggregate	Electricity	446.3324	23740.44	0	23740.44	6143.241	0	0	0	0	0	0	0.003	0.007953	0	0	0	0.012	0.022724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	MHDT	Aggregate	Aggregate	Natural Ga	59.81429	2526.343	2526.343	0	572.8236	0.0963	6.310343	0	0.001402	0.020216	0	0.003	0.016078	0.001525	0.021987	0	0.012	0.049338	974.2403	5301.669	0	0.781312	15.85967	0	0.198605	1.08078	0	0.011163	0.226603	0	0	0	0	0.797386	16.18596	0	0	0	0	1.06	3.055339	39.52768	0	0	0	0
San Mateo	2030	OBUS	Aggregate	Aggregate	Gasoline	235.2431	10564.99	10564.99	0	4706.745	0.160976	0.055683	0.334188	0.001132	0	0.000289	0.003	0.01568	0.001231	0	0.000315	0.012	0.044799	1631.402	356.5246	28.55452	0.004957	0.201951	0.030859	0.010543	0.00494	0.028192	0.021402	0.748646	0.154359	0.024573	0.126962	2.196095	0.03123	1.092423	0.169003	0.024573	0.126962	2.196095	0.045	0.436972	5.788883	3.119712	0.016128	0.003525	0.000282
San Mateo	2030	OBUS	Aggregate	Aggregate	Diesel	1265.064	76747.17	76747.17	0	12416.27	0.731147	4.662626	1.324481	0.008334	0.002706	0	0.003	0.017521	0.008711	0.002828	0	0.012	0.050059	1157.144	1158.301	0	0.000821	0.014331	0	0.182309	0.182491	0	0.017683	0.308549	0	0	0	0	0.020131	0.351259	0	0	0	0	0.218276	0.087625	5.772448	0	0.010957	0.010968	0
San Mateo	2030	OBUS	Aggregate	Aggregate	Electricity	18.67716	1366.971	0	1366.971	373.6926	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	OBUS	Aggregate	Aggregate	Natural Ga	14.94448	957.8955	957.8955	0	133.0059	0.101418	1.499098	0	0.001484	0.004813	0	0.003	0.016148	0.001614	0.005235	0	0.012	0.046137	931.1349	1169.497	0	0.838494	3.763815	0	0.189818	0.23841	0	0.01198	0.053777	0	0	0	0	0.855745	3.84125	0	0	0	0	1.06	3.385525	9.413723	0	0	0	0
San Mateo	2030	SBUS	Aggregate	Aggregate	Gasoline	87.98822	4038.39	4038.39	0	351.9529	0.489617	0.750616	0.559502	0.001063	0	0.000722	0.002	0.015721	0.001156	0	0.000786	0.008	0.044917	757.0149	2429.667	55.27111	0.010391	2.44431	0.075405	0.024791	0.073975	0.052746	0.050694	10.64152	0.434086	0.098112	0.31801	1.752705	0.073972	15.52808	0.47527	0.098112	0.31801	1.752705	0.045	1.308566	82.24088	10.22191	0.007484	0.02402	0.000546
San Mateo	2030	SBUS	Aggregate	Aggregate	Diesel	160.7253	3531.519	3531.519	0	2327.302	2.868955	18.37325	0.553036	0.014701	0.012669	0	0.003	0.015721	0.015365	0.013242	0	0.012	0.044917	1113.173	2158.09	0	0.002281	0.007956	0	0.175381	0.340008	0	0.049109	0.1713	0	0	0	0	0.055907	0.195012	0	0	0	0	0.169646	0.15856	5.305748	0	0.010541	0.020436	0
San Mateo	2030	SBUS	Aggregate	Aggregate	Electricity	17.84997	651.998	0	651.998	163.1263	0	0	0	0	0	0	0.003	0.00236	0.00786	0	0	0	0.009438	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	SBUS	Aggregate	Aggregate	Natural Ga	7.671522	180.9535	180.9535	0	111.0836	0.443878	5.198476	0	0.003378	0.013085	0	0.003	0.015721	0.003674	0.014231	0	0.012	0.044917	1201.138	4122.528	0	3.098317	14.36251	0	0.24486	0.840404	0	0.044269	0.205212	0	0	0	0	3.16206	14.658	0	0	0	0	1.06	10.05674	24.64166	0	0	0	0
San Mateo	2030	UBUS	Aggregate	Aggregate	Gasoline	62.5174	4249.774	4249.774	0	250.0696	0.035638	0	0.310547	0.001201	0	0.000164	0.002	0.002072	0.032329	0.001307	0	0.000179	0.008288	0.09237	932.2834	0	37.52663	0.001497	0	0.032416	0.004454	0	0.04913	0.004138	0	0.115554	0.024606	0.097267	0.356985	0.006038	0	0.126517	0.024606	0.097267	0.356985	0.045	0.559001	0	5.953718	0.009217	0	0.000371
San Mateo	2030	UBUS	Aggregate	Aggregate	Diesel	238.4518	18140.33	18140.33	0	953.8071	0.376197	0	0	0.006839	0	0	0.002	0.008109	0.0385	0.007148	0	0	0.032436	0.11	1228.547	0	0	0.003149	0	0	0.193558	0	0	0.067807	0	0	0	0	0.077193	0	0	0	0	0	0.22	0.077324	0	0	0.011641	0	0
San Mateo	2030	UBUS	Aggregate	Aggregate	Electricity	72.67394	6853.165	0	6853.165	290.6957	0	0	0	0	0	0	0.002	0.007651	0.01925	0	0	0	0.030604	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2030	UBUS	Aggregate	Aggregate	Natural Ga	75.54888	5381.015	5381.015	0	302.1955	0.055771	0	0	0.000273	0	0	0.002	0.007786	0.0385	0.000286	0	0	0.031145	0.11	1266.418	0	0	4.115508	0	0	0.258168	0	0	0.058802	0	0	0	0	4.200177	0	0	0	0	0	0.97	46.76788	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2028
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_DIA	PM2.5_TIR	PM2.5_BRA	PM10_RUN	PM10_IDL	PM10_STR	PM10_DIA	PM10_TIR	PM10_BRA	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2028	HHDT	Aggregate	Aggregate	Gasoline	4.087369	426.9851	426.9851	0	81.78009	3.785923	0	0.000743	0.001359	0	0.000569	0.005	0.031153	0.001478	0	0.000618	0.02	0.089009	2169.605	0	49.72279	0.109696	0	8.65E-05	0.148497	0	4.84E-05	0.532974	0	0.000469	0.02665	0.192885	1.828464	0.777714	0	0.000513	0.02665	0.192885	1.828464	0.045	33.60705	0	4.299787	0.021449	0	0.000492
San Mateo	2028	HHDT	Aggregate	Aggregate	Diesel	1348.7	118863.6	118863.6	0	15118.87	2.305759	45.59696	3.062001	0.02389	0.027666	0	0.008609	0.030151	0.02497	0.028917	0	0.034435	0.086144	1688.482	7871.283	0	0.001068	0.160574	0	0.266021	1.240124	0	0.022983	3.457113	0	0	0	0	0.026165	3.93566	0	0	0	0	0.20529	0.099669	49.19936	0	0.015989	0.074536	0
San Mateo	2028	HHDT	Aggregate	Aggregate	Electricity	42.61913	3900.691	0	3900.691	410.6363	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008472	0.017636	0	0	0	0	0	0	0	0.033886	0.05039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	HHDT	Aggregate	Aggregate	Natural Ga	207.2611	13277.54	13277.54	0	1340.296	0.986115	7.372316	0	0.001507	0.012221	0	0.009	0.062091	0.001639	0.013292	0	0.036	0.177403	1416.611	8063.993	0	2.149289	18.9597	0	0.288785	1.643898	0	0.04445	0.294554	0	0	0	0	2.209162	19.37671	0	0	0	0	0.701215	13.92351	59.3483	0	0	0	0
San Mateo	2028	LDA	Aggregate	Aggregate	Gasoline	238224	6625096	6625096	0	1117181	0.027731	0	0.210074	0.000951	0	0.001665	0.002	0.002348	0.000194	0	0.00181	0.008	0.00671	256.6146	0	64.37049	0.001433	0	0.053849	0.003522	0	0.027728	0.005198	0	0.245617	0.071362	0.19449	1.165638	0.007584	0	0.268919	0.071362	0.19449	1.165638	0.038871	0.527215	0	2.594942	0.002537	0	0.000636
San Mateo	2028	LDA	Aggregate	Aggregate	Diesel	518.2623	10422.73	10422.73	0	2185.907	0.108554	0	0	0.007604	0	0	0.002	0.002418	0.007948	0	0	0.008	0.00691	223.1469	0	0	0.000725	0	0	0.035157	0	0	0.015608	0	0	0	0	0	0.017769	0	0	0	0	0.0031	0.255789	0	0	0.002114	0	0
San Mateo	2028	LDA	Aggregate	Aggregate	Electricity	22943.23	778703.3	0	778703.3	112146.2	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LDA	Aggregate	Aggregate	Plug-in Hyb	9174.453	287067.5	130150.4	156917.1	37936.36	0.002913	0	0.117199	0.000434	0	0.00163	0.002	0.001342	0.000472	0	0.001773	0.008	0.000833	122.3124	0	62.60546	0.000364	0	0.040915	0.00047	0	0.018911	0.001224	0	0.176635	0.039127	0.042399	0.443788	0.001786	0	0.193393	0.039127	0.042399	0.443788	0.018519	0.182539	0	1.37819	0.001209	0	0.000619
San Mateo	2028	LDT1	Aggregate	Aggregate	Gasoline	26871.73	710860.9	710860.9	0	123556	0.061142	0	0.260378	0.001145	0	0.001889	0.002	0.002819	0.001246	0	0.002054	0.008	0.008053	299.4853	0	76.24412	0.002858	0	0.066199	0.005353	0	0.03047	0.012073	0	0.320302	0.098602	0.279171	1.625538	0.017617	0	0.350691	0.098602	0.279171	1.625538	0.039234	0.777188	0	3.333143	0.002961	0	0.000754
San Mateo	2028	LDT1	Aggregate	Aggregate	Diesel	1.279991	17.08643	17.08643	0	3.850863	0.926773	0	0	0.137922	0	0	0.002	0.003128	0.144159	0	0	0.008	0.008938	379.2497	0	0	0.010417	0	0	0.059751	0	0	0.224274	0	0	0	0	0	0.255321	0	0	0	0	0.0031	1.631356	0	0	0.003594	0	0
San Mateo	2028	LDT1	Aggregate	Aggregate	Electricity	215.382	7602.43	0	7602.43	1064.315	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LDT1	Aggregate	Aggregate	Plug-in Hyb	168.7717	5738.6	2397.775	3340.825	697.8708	0.002684	0	0.117199	0.000274	0	0.00112	0.002	0.001354	0.000298	0	0.001218	0.008	0.003869	112.7228	0	68.38361	0.000336	0	0.040926	0.000434	0	0.018921	0.001128	0	0.176635	0.0229	0.019715	0.264869	0.001646	0	0.193393	0.0229	0.019715	0.264869	0.017549	0.168228	0	1.37819	0.001114	0	0.000676
San Mateo	2028	LDT2	Aggregate	Aggregate	Gasoline	188791.4	5454076	5454076	0	902311	0.034414	0	0.229703	0.000938	0	0.001582	0.002	0.002749	0.00102	0	0.001721	0.008	0.007856	311.9092	0	78.02059	0.001635	0	0.056817	0.003851	0	0.029851	0.005886	0	0.25108	0.049035	0.130934	0.815973	0.008588	0	0.274901	0.049035	0.130934	0.815973	0.040367	0.558186	0	2.697318	0.003084	0	0.000771
San Mateo	2028	LDT2	Aggregate	Aggregate	Diesel	721.4435	20620.51	20620.51	0	3444.651	0.030404	0	0	0.003874	0	0	0.002	0.002761	0.00405	0	0	0.008	0.00789	289.9832	0	0	0.000543	0	0	0.045687	0	0	0.011695	0	0	0	0	0	0.013314	0	0	0	0	0.0031	0.115462	0	0	0.002748	0	0
San Mateo	2028	LDT2	Aggregate	Aggregate	Electricity	3148.148	80104.27	0	80104.27	15796.57	0	0	0	0	0	0	0.002	0.001529	0	0	0	0.008	0.00437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LDT2	Aggregate	Aggregate	Plug-in Hyb	3055.991	97890.29	42500.25	55390.04	12636.52	0.002789	0	0.117199	0.000337	0	0.001324	0.002	0.001349	0.000367	0	0.001439	0.008	0.003854	117.1281	0	75.04093	0.000348	0	0.040816	0.000448	0	0.01882	0.001172	0	0.176635	0.025087	0.022531	0.285181	0.001711	0	0.193393	0.025087	0.022531	0.285181	0.018229	0.174802	0	1.37819	0.001158	0	0.000742
San Mateo	2028	LHDT1	Aggregate	Aggregate	Gasoline	12894.54	409468.1	409468.1	0	192109.4	0.064108	0.029866	0.488744	0.00129	0	0.000174	0.002	0.0273	0.001403	0	0.000189	0.008	0.078	794.8073	112.6645	25.85055	0.003419	0.096188	0.024141	0.003805	0.002663	0.042539	0.0159	0.342597	0.115396	0.026106	0.148763	1.503764	0.023201	0.499917	0.126344	0.026106	0.148763	1.503764	0.045	0.777673	3.770584	3.391678	0.007857	0.001114	0.000256
San Mateo	2028	LHDT1	Aggregate	Aggregate	Diesel	6434.479	215842.1	215842.1	0	80937.65	0.593324	1.283254	0	0.018835	0.026477	0	0.003	0.0273	0.019687	0.027674	0	0.012	0.078	613.5743	121.1087	0	0.004903	0.005098	0	0.096669	0.019081	0	0.105551	0.10976	0	0	0	0	0.120162	0.124954	0	0	0	0	0.020569	0.24918	0.909745	0	0.005814	0.001148	0
San Mateo	2028	LHDT1	Aggregate	Aggregate	Electricity	815.9233	38136.82	0	38136.82	11425.03	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	LHDT2	Aggregate	Aggregate	Gasoline	1466.531	45093.53	45093.53	0	21849.12	0.067968	0.028072	0.478763	0.001212	0	0.000145	0.002	0.03185	0.001318	0	0.000157	0.008	0.091	896.8671	130.3704	24.43935	0.002634	0.090113	0.022894	0.004463	0.002446	0.040267	0.011246	0.322167	0.109059	0.026654	0.152607	1.608504	0.016409	0.470106	0.119406	0.026654	0.152607	1.608504	0.045	0.664739	3.774704	3.316521	0.008866	0.001289	0.000242
San Mateo	2028	LHDT2	Aggregate	Aggregate	Diesel	2946.348	96950.8	96950.8	0	37061.35	0.496841	1.243506	0	0.018964	0.026767	0	0.003	0.03185	0.019821	0.027977	0	0.012	0.091	718.9999	193.8475	0	0.00502	0.005098	0	0.113279	0.030541	0	0.108083	0.10976	0	0	0	0	0.123045	0.124954	0	0	0	0	0.209959	0.2419	0.909745	0	0.006813	0.001837	0
San Mateo	2028	LHDT2	Aggregate	Aggregate	Electricity	206.8476	9233.104	0	9233.104	2743.645	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	MCY	Aggregate	Aggregate	Gasoline	16024.84	83191.06	83191.06	0	32049.68	0.480774	0	0.097717	0.001923	0	0.003447	0.001	0.0042	0.00206	0	0.003683	0.004	0.012	185.5578	0	41.2827	0.132675	0	0.151107	0.035446	0	0.006084	0.818771	0	1.08739	3.541021	3.687565	2.884103	1.006867	0	1.183043	3.541021	3.687565	2.884103	0.00904	9.971326	0	7.601536	0.001834	0	0.000408
San Mateo	2028	MDV	Aggregate	Aggregate	Gasoline	106046.8	3139229	3139229	0	505616.6	0.037084	0	0.252753	0.000922	0	0.001593	0.002	0.002771	0.001003	0	0.001732	0.008	0.007918	376.6742	0	94.59274	0.00172	0	0.061312	0.004005	0	0.03096	0.006353	0	0.281783	0.052632	0.145505	0.901798	0.00927	0	0.308517	0.052632	0.145505	0.901798	0.040421	0.566677	0	2.776662	0.003724	0	0.000935
San Mateo	2028	MDV	Aggregate	Aggregate	Diesel	1344.624	38138.7	38138.7	0	6350.78	0.022126	0	0	0.002553	0	0	0.002	0.002828	0.002669	0	0	0.008	0.00808	381.079	0	0	0.000316	0	0	0.060039	0	0	0.006813	0	0	0	0	0	0.007757	0	0	0	0	0.0031	0.154195	0	0	0.003611	0	0
San Mateo	2028	MDV	Aggregate	Aggregate	Electricity	3273.507	83057.65	0	83057.65	16411.37	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	MDV	Aggregate	Aggregate	Plug-in Hyb	1812.403	60147.57	26000.4	34147.16	7494.288	0.002777	0	0.117199	0.00035	0	0.001388	0.002	0.00135	0.000381	0	0.00151	0.008	0.003858	116.6195	0	91.35862	0.000348	0	0.040976	0.00045	0	0.018968	0.001167	0	0.176635	0.027415	0.02651	0.316449	0.001703	0	0.193393	0.027415	0.02651	0.316449	0.018156	0.174043	0	1.37819	0.001153	0	0.000903
San Mateo	2028	MH	Aggregate	Aggregate	Gasoline	918.1328	8640.917	8640.917	0	91.85001	0.182853	0	0.391887	0.001446	0	0.000365	0.003	0.015756	0.001573	0	0.000397	0.012	0.045017	1945.394	0	30.76138	0.006797	0	0.033875	0.015497	0	0.044709	0.024735	0	0.132426	5.693158	0.137911	2.141844	0.036093	0	0.14499	5.693158	0.137911	2.141844	0.045	0.473286	0	2.993366	0.019232	0	0.000304
San Mateo	2028	MH	Aggregate	Aggregate	Diesel	465.6535	4277.963	4277.963	0	46.56535	2.773275	0	0	0.034738	0	0	0.004	0.015675	0.036308	0	0	0.016	0.044785	1086.92	0	0	0.003879	0	0	0.171245	0	0	0.083504	0	0	0	0	0	0.095063	0	0	0	0	0.202893	0.252824	0	0	0.010299	0	0
San Mateo	2028	MHDT	Aggregate	Aggregate	Gasoline	882.2879	48208.29	48208.29	0	17652.82	0.192737	0.075927	0.365526	0.001346	0	0.000477	0.003	0.015756	0.001464	0	0.000519	0.012	0.045017	1665.814	503.224	41.97811	0.00648	0.272074	0.040965	0.012105	0.006866	0.031489	0.029453	1.02262	0.211628	0.020138	0.169219	1.647752	0.042978	1.492204	0.231706	0.020138	0.169219	1.647752	0.045	0.560554	15.23151	4.548122	0.016468	0.004975	0.000415
San Mateo	2028	MHDT	Aggregate	Aggregate	Diesel	4396.245	176136.6	176136.6	0	53168.12	0.894905	12.06559	1.58431	0.008976	0.015354	0	0.003	0.015983	0.009382	0.016048	0	0.012	0.045665	1125.346	2171.217	0	0.000968	0.009787	0	0.177299	0.342076	0	0.020831	0.210721	0	0	0	0	0.023715	0.239889	0	0	0	0	0.214104	0.08991	7.487192	0	0.010656	0.02056	0
San Mateo	2028	MHDT	Aggregate	Aggregate	Electricity	205.6395	11169.03	0	11169.03	2839.827	0	0	0	0	0	0	0.003	0.007952	0	0	0	0.012	0.022719	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	MHDT	Aggregate	Aggregate	Natural Ga	54.70168	2394.418	2394.418	0	514.2228	0.103085	6.38744	0	0.001372	0.020029	0	0.003	0.016084	0.001492	0.021784	0	0.012	0.045955	981.6838	5353.703	0	0.780893	16.21102	0	0.200123	1.091387	0	0.011157	0.231624	0	0	0	0	0.796958	16.54454	0	0	0	0	1.06	3.059145	39.04826	0	0	0	0
San Mateo	2028	OBUS	Aggregate	Aggregate	Gasoline	244.3586	11852.4	11852.4	0	4889.127	0.189256	0.058492	0.348522	0.001102	0	0.000286	0.003	0.01568	0.001198	0	0.000311	0.012	0.044799	1656.69	360.4769	28.94764	0.005671	0.203559	0.031483	0.012019	0.005247	0.029789	0.024998	0.748329	0.156944	0.025167	0.126217	2.177423	0.036477	1.091959	0.171834	0.025167	0.126217	2.177423	0.045	0.520195	5.786979	3.194706	0.016378	0.003564	0.000286
San Mateo	2028	OBUS	Aggregate	Aggregate	Diesel	1211.393	76199.48	76199.48	0	11894.78	0.759172	5.051633	1.425614	0.008693	0.002895	0	0.003	0.017466	0.009086	0.003026	0	0.012	0.049902	1185.134	1184.015	0	0.000861	0.014413	0	0.186718	0.186542	0	0.018529	0.310316	0	0	0	0	0.021094	0.353271	0	0	0	0	0.21809	0.089377	5.786939	0	0.011223	0.011212	0
San Mateo	2028	OBUS	Aggregate	Aggregate	Electricity	8.935831	691.3658	0	691.3658	178.7881	0	0	0	0	0	0	0.003	0.00794	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	OBUS	Aggregate	Aggregate	Natural Ga	12.72738	821.4822	821.4822	0	113.2737	0.117916	1.507582	0	0.001405	0.004611	0	0.003	0.016148	0.001529	0.005015	0	0.012	0.046137	950.7451	1180.472	0	0.829445	3.868569	0	0.193816	0.240647	0	0.011851	0.055274	0	0	0	0	0.846509	3.948158	0	0	0	0	1.06	3.361144	8.957434	0	0	0	0
San Mateo	2028	SBUS	Aggregate	Aggregate	Gasoline	82.76405	3950.797	3950.797	0	331.0562	0.573197	0.792827	0.582796	0.001058	0	0.000719	0.002	0.015721	0.001151	0	0.000782	0.008	0.044917	764.9791	2451.955	56.61559	0.012554	2.448346	0.078437	0.028355	0.076641	0.054315	0.061351	10.64152	0.452518	0.104317	0.332084	1.837104	0.089523	15.52808	0.495451	0.104317	0.332084	1.837104	0.045	1.593965	82.24088	10.79588	0.007563	0.02424	0.00056
San Mateo	2028	SBUS	Aggregate	Aggregate	Diesel	166.0168	3662.699	3662.699	0	2403.923	3.486175	20.21871	0.524341	0.017155	0.016119	0	0.003	0.015721	0.01793	0.016848	0	0.012	0.044917	1123.427	2188.308	0	0.002589	0.007973	0	0.176996	0.344769	0	0.055749	0.17165	0	0	0	0	0.063466	0.195411	0	0	0	0	0.159444	0.174936	4.978986	0	0.010638	0.020722	0
San Mateo	2028	SBUS	Aggregate	Aggregate	Electricity	8.410812	315.9164	0	315.9164	76.16352	0	0	0	0	0	0	0.002	0.002342	0.00786	0	0	0	0.009369	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	SBUS	Aggregate	Aggregate	Natural Ga	7.283353	176.1298	176.1298	0	105.463	0.467367	5.211463	0	0.003378	0.012775	0	0.003	0.015721	0.003674	0.013894	0	0.012	0.044917	1213.033	4114.256	0	3.163125	14.52286	0	0.247285	0.838718	0	0.045195	0.207503	0	0	0	0	3.228201	14.82164	0	0	0	0	1.06	10.36172	23.94323	0	0	0	0
San Mateo	2028	UBUS	Aggregate	Aggregate	Gasoline	62.16369	4226.45	4226.45	0	248.6548	0.033873	0	0.3307	0.001202	0	0.000164	0.002	0.002072	0.032331	0.001307	0	0.000179	0.00829	0.092375	932.6347	0	38.1862	0.001598	0	0.032638	0.004398	0	0.051649	0.004432	0	0.116715	0.023934	0.090544	0.316913	0.006466	0	0.127788	0.023934	0.090544	0.316913	0.045	0.558751	0	6.359155	0.00922	0	0.000378
San Mateo	2028	UBUS	Aggregate	Aggregate	Diesel	260.7992	19902.79	19902.79	0	1043.197	0.374953	0	0	0.006816	0	0	0.002	0.008085	0.0385	0.007124	0	0	0.032342	0.11	1245.48	0	0	0.002141	0	0	0.196226	0	0	0.067634	0	0	0	0	0.076996	0	0	0	0	0	0.22	0.077071	0	0	0.011802	0	0
San Mateo	2028	UBUS	Aggregate	Aggregate	Electricity	53.31881	5326.696	0	5326.696	213.2752	0	0	0	0	0	0	0.002	0.007594	0.01925	0	0	0	0.030377	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2028	UBUS	Aggregate	Aggregate	Natural Ga	70.30426	4967.469	4967.469	0	281.217	0.055732	0	0	0.000273	0	0	0.002	0.007781	0.0385	0.000286	0	0	0.031125	0.11	1265.998	0	0	4.113837	0	0	0.258082	0	0	0.058779	0	0	0	0	4.198472	0	0	0	0	0	0.97	46.7387	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2029
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
San Mateo	2029	HHDT	Aggregate	Aggregate	Gasoline	3.809191	386.0787	386.0787	0	76.2143	3.6408	0	0.000651	0.00131	0	0.000471	0.005	0.031192	0.001424	0	0.000512	0.02	0.08912	2146.462	0	49.07267	0.105106	0	8.16E-05	0.14591	0	4.39E-05	0.495946	0	0.000442	0.020157	0.133855	1.416786	0.723683	0	0.000484	0.020157	0.133855	1.416786	0.045	32.72931	0	4.233092	0.02122	0	0.000485
San Mateo	2029	HHDT	Aggregate	Aggregate	Diesel	1347.069	1181087	1181087	0	15180.79	2.216843	45.45292	3.049063	0.02371	0.026328	0	0.008612	0.030119	0.024782	0.027518	0	0.034446	0.086055	1657.712	7791.34	0	0.001029	0.161467	0	0.261173	1.227529	0	0.022151	3.47633	0	0	0	0	0.025217	3.957537	0	0	0	0	0.206457	0.055888	49.65756	0	0.015698	0.073779	0
San Mateo	2029	HHDT	Aggregate	Aggregate	Electricity	61.38548	5625.427	0	5625.427	586.7168	0	0	0	0	0	0	0.008456	0.017685	0	0	0	0.033823	0.050527	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	HHDT	Aggregate	Aggregate	Natural Ga	213.1041	13573.41	13573.41	0	1372.044	0.903052	7.039119	0	0.001471	0.012322	0	0.009	0.062508	0.001599	0.013401	0	0.036	0.178595	1402.289	8018.171	0	1.987704	18.15289	0	0.285866	1.634557	0	0.04052	0.280116	0	0	0	0	0.042406	18.55	0	0	0	0	0.697123	13.43818	58.5813	0	0	0	0
San Mateo	2029	LDA	Aggregate	Aggregate	Gasoline	238011	6483192	6483192	0	1115947	0.02624	0	0.203926	0.000892	0	0.00158	0.002	0.002348	0.000971	0	0.001718	0.008	0.006709	253.3347	0	63.37986	0.001341	0	0.051198	0.003416	0	0.027128	0.004794	0	0.232262	0.068066	0.187788	1.127557	0.066995	0	0.254298	0.068066	0.187788	1.127557	0.039399	0.50981	0	2.4859	0.002504	0	0.000627
San Mateo	2029	LDA	Aggregate	Aggregate	Diesel	456.827	9170.063	9170.063	0	1942.931	0.094096	0	0	0.006546	0	0	0.002	0.002419	0.006842	0	0	0.008	0.00691	220.4912	0	0	0.000644	0	0	0.034738	0	0	0.013863	0	0	0	0	0	0.015782	0	0	0	0	0	0.0031	0.241685	0	0	0.002089	0	0
San Mateo	2029	LDA	Aggregate	Aggregate	Electricity	24100.92	793781.1	0	793781.1	117419.6	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.00438	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDA	Aggregate	Aggregate	Plug-in Hyb	9494.131	287716	128798.3	158917.6	39258.23	0.002876	0	0.117199	0.000402	0	0.001542	0.002	0.001345	0.000437	0	0.001677	0.008	0.003842	120.7694	0	62.15103	0.000358	0	0.040679	0.000459	0	0.018693	0.001209	0	0.176635	0.039313	0.045242	0.462918	0.018366	0.180238	0	0.193393	0.039313	0.045242	0.462918	0.018366	0.180238	0	1.37819	0.001194	0	0.000614
San Mateo	2029	LDT1	Aggregate	Aggregate	Gasoline	27294.21	708091.6	708091.6	0	125650.3	0.053512	0	0.246458	0.001055	0	0.00176	0.002	0.00282	0.001147	0	0.001914	0.008	0.008057	295.424	0	74.77875	0.002526	0	0.061513	0.004938	0	0.029607	0.010492	0	0.293538	0.09105	0.26062	1.534288	0.01531	0	0.321387	0.09105	0.26062	1.534288	0.039565	0.719479	0	3.085477	0.002921	0	0.000739
San Mateo	2029	LDT1	Aggregate	Aggregate	Diesel	0.938739	13.36993	13.36993	0	2.92998	0.773552	0	0	0.115054	0	0	0.002	0.003055	0.120256	0	0	0.008	0.008728	375.8287	0	0	0.008733	0	0	0.059212	0	0	0.188024	0	0	0	0	0	0.214053	0	0	0	0	0	0.0031	1.371554	0	0	0.003561	0	0
San Mateo	2029	LDT1	Aggregate	Aggregate	Electricity	261.7498	9083.851	0	9083.851	1295.214	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDT1	Aggregate	Aggregate	Plug-in Hyb	206.752	6804.689	2825.811	3978.878	854.9193	0.002668	0	0.117199	0.000252	0	0.001042	0.002	0.001356	0.000274	0	0.001133	0.008	0.003874	112.0329	0	68.03811	0.000332	0	0.040721	0.000427	0	0.018731	0.001121	0	0.176635	0.022851	0.019652	0.264662	0.017442	0.167199	0	0.193393	0.022851	0.019652	0.264662	0.017442	0.167199	0	1.37819	0.001108	0	0.000673
San Mateo	2029	LDT2	Aggregate	Aggregate	Gasoline	197692.3	5555720	5555720	0	942893.2	0.032543	0	0.224267	0.000879	0	0.001496	0.002	0.002759	0.000956	0	0.001627	0.008	0.007882	308.3532	0	76.96688	0.001562	0	0.054515	0.003742	0	0.029465	0.005558	0	0.239589	0.046971	0.126032	0.782819	0.00811	0	0.26232	0.046971	0.126032	0.782819	0.040657	0.547513	0	2.613961	0.003048	0	0.000761
San Mateo	2029	LDT2	Aggregate	Aggregate	Diesel	751.2734	20941.98	20941.98	0	3581.796	0.029195	0	0	0.00378	0	0	0.002	0.002767	0.003951	0	0	0.008	0.007905	286.4383	0	0	0.000536	0	0	0.045128	0	0	0.011536	0	0	0	0	0	0.013133	0	0	0	0	0	0.0031	0.114787	0	0	0.002714	0	0
San Mateo	2029	LDT2	Aggregate	Aggregate	Electricity	3716.563	91448.71	0	91448.71	18570.34	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LDT2	Aggregate	Aggregate	Plug-in Hyb	3434.135	106095.8	45607.13	60488.72	14200.15	0.002762	0	0.117199	0.000312	0	0.001245	0.002	0.001352	0.000334	0	0.001355	0.008	0.003862	115.9699	0	74.59486	0.000343	0	0.040573	0.000439	0	0.018595	0.001161	0	0.176635	0.025779	0.024022	0.296104	0.018049	0.173075	0	0.193393	0.025779	0.024022	0.296104	0.018049	0.173075	0	1.37819	0.001146	0	0.000737
San Mateo	2029	LHDT1	Aggregate	Aggregate	Gasoline	13178.85	406150.2	406150.2	0	196345.3	0.055124	0.029142	0.474869	0.001266	0	0.000159	0.002	0.0273	0.001376	0	0.000172	0.008	0.078	787.9509	111.9378	25.61413	0.002876	0.094114	0.023196	0.003349	0.002612	0.04152	0.012934	0.334359	0.109946	0.024026	0.136906	1.388424	0.018873	0.487896	0.120377	0.024026	0.136906	1.388424	0.045	0.716939	3.772559	3.366197	0.00779	0.001107	0.000253
San Mateo	2029	LHDT1	Aggregate	Aggregate	Diesel	6712.758	217621.3	217621.3	0	84438.05	0.534313	1.227788	0	0.01821	0.026431	0	0.003	0.0273	0.019033	0.027626	0	0.012	0.078	611.9152	120.1924	0	0.004733	0.005098	0	0.096407	0.018936	0	0.101897	0.10976	0	0	0	0	0.116003	0.124954	0	0	0	0	0.207752	0.239818	0.909745	0	0.005798	0.001139	0
San Mateo	2029	LHDT1	Aggregate	Aggregate	Electricity	1193.542	53319.24	0	53319.24	16716.82	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	LHDT2	Aggregate	Aggregate	Gasoline	1494.739	44651.31	44651.31	0	22269.38	0.060004	0.027223	0.461562	0.001198	0	0.000136	0.002	0.03185	0.001303	0	0.000148	0.008	0.091	889.4609	129.5331	24.28423	0.002349	0.08765	0.021946	0.004031	0.00239	0.039095	0.009864	0.31246	0.103977	0.024689	0.141893	1.497411	0.014394	0.45594	0.113842	0.024689	0.141893	1.497411	0.045	0.647973	3.77594	3.316566	0.008793	0.001281	0.00024
San Mateo	2029	LHDT2	Aggregate	Aggregate	Diesel	3096.292	98145.23	98145.23	0	38947.46	0.463336	1.196448	0	0.018788	0.026765	0	0.003	0.03185	0.019638	0.027976	0	0.012	0.091	716.1361	192.6224	0	0.004932	0.005098	0	0.112828	0.030348	0	0.106184	0.10976	0	0	0	0	0.120883	0.124954	0	0	0	0	0.211254	0.239496	0.909745	0	0.006786	0.001825	0
San Mateo	2029	LHDT2	Aggregate	Aggregate	Electricity	301.803	12890.22	0	12890.22	4002.814	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	MCY	Aggregate	Aggregate	Gasoline	16656.23	84327.52	84327.52	0	33312.46	0.475678	0	0.092562	0.001927	0	0.003424	0.001	0.0042	0.002065	0	0.003661	0.004	0.012	185.3883	0	40.42468	0.130952	0	0.147168	0.035253	0	0.005819	0.803065	0	1.053141	3.538799	3.681462	2.798314	0.990467	0	1.145945	3.538799	3.681462	2.798314	0.009061	9.829117	0	7.589064	0.001833	0	0.0004
San Mateo	2029	MDV	Aggregate	Aggregate	Gasoline	111014.4	3197374	3197374	0	528366.3	0.034398	0	0.244243	0.000863	0	0.001503	0.002	0.002781	0.000939	0	0.001634	0.008	0.007947	372.4292	0	93.31931	0.001621	0	0.058298	0.003857	0	0.030492	0.005884	0	0.265357	0.050275	0.139464	0.862214	0.008586	0	0.290532	0.050275	0.139464	0.862214	0.040684	0.553206	0	2.681723	0.003682	0	0.000923
San Mateo	2029	MDV	Aggregate	Aggregate	Diesel	1382.277	38140.56	38140.56	0	6514.002	0.019715	0	0	0.002294	0	0	0.002	0.002834	0.002397	0	0	0.008	0.008096	376.4636	0	0	0.000296	0	0	0.059312	0	0	0.006372	0	0	0	0	0	0.007254	0	0	0	0	0	0.0031	0.150538	0	0	0.003567	0	0
San Mateo	2029	MDV	Aggregate	Aggregate	Electricity	3792.346	92906.98	0	92906.98	18923.54	0	0	0	0	0	0	0.002	0.001531	0	0	0	0.008	0.004374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	MDV	Aggregate	Aggregate	Plug-in Hyb	2048.731	65630.13	28078.34	37551.79	8471.504	0.002749	0	0.117199	0.000321	0	0.001294	0.002	0.001353	0.000349	0	0.001407	0.008	0.003865	115.4194	0	90.74374	0.000342	0	0.040734	0.00044	0	0.018744	0.001155	0	0.176635	0.027008	0.026366	0.315186	0.001686	0	0.193393	0.027008	0.026366	0.315186	0.017969	0.172254	0	1.37819	0.001141	0	0.000897
San Mateo	2029	MH	Aggregate	Aggregate	Gasoline	945.7628	8775.425	8775.425	0	94.61411	0.162702	0	0.390234	0.001418	0	0.000356	0.003	0.015756	0.001542	0	0.000388	0.012	0.045017	1945.191	0	30.6242	0.005973	0	0.033413	0.014657	0	0.044914	0.020552	0	0.129132	4.947336	0.119606	1.873931	0.029989	0	0.141383	4.947336	0.119606	1.873931	0.045	0.356271	0	2.913882	0.01923	0	0.000303
San Mateo	2029	MH	Aggregate	Aggregate	Diesel	491.9002	4391.864	4391.864	0	49.18002	2.720781	0	0	0.032231	0	0	0.004	0.015675	0.033688	0	0	0.016	0.044785	1087.093	0	0	0.003824	0	0	0.173272	0	0	0.082336	0	0	0	0	0	0.093734	0	0	0	0	0	0.204869	0.247668	0	0	0.010301	0	0
San Mateo	2029	MHDT	Aggregate	Aggregate	Gasoline	891.858	47612.33	47612.33	0	17844.29	0.164485	0.073363	0.348878	0.001346	0	0.00047	0.003	0.015756	0.001464	0	0.000511	0.012	0.045017	1652.935	499.0834	41.3534	0.005683	0.272739	0.040004	0.01086	0.006693	0.030483	0.025234	1.023798	0.204569	0.018253	0.153524	1.505548	0.036821	1.493923	0.223977	0.018253	0.153524	1.505548	0.045	0.466497	15.24521	4.357774	0.016341	0.004934	0.000409
San Mateo	2029	MHDT	Aggregate	Aggregate	Diesel	4384.783	173759.4	173759.4	0	53047.55	0.819487	11.81578	1.552476	0.007865	0.012697	0	0.003	0.015983	0.00822	0.013271	0	0.012	0.045665	1118.745	2153.493	0	0.000847	0.00947	0	0.176259	0.339284	0	0.018241	0.203878	0	0	0	0	0.020766	0.2321	0	0	0	0	0.214973	0.082868	7.484588	0	0.010594	0.020392	0
San Mateo	2029	MHDT	Aggregate	Aggregate	Electricity	312.3324	16768.42	0	16768.42	4303.818	0	0	0	0	0	0	0.003	0.007953	0	0	0	0.012	0.022722	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	MHDT	Aggregate	Aggregate	Natural Ga	57.50627	2472.806	2472.806	0	545.9031	0.09947	6.346762	0	0.001388	0.020133	0	0.003	0.016081	0.00151	0.021897	0	0.012	0.045946	977.6713	5326.58	0	0.781143	16.02377	0	0.199305	1.085858	0	0.011161	0.228948	0	0	0	0	0.797213	16.35343	0	0	0	0	1.06	3.057046	39.31271	0	0	0	0
San Mateo	2029	OBUS	Aggregate	Aggregate	Gasoline	240.6761	11222.07	11222.07	0	4815.448	0.175186	0.056963	0.340865	0.00112	0	0.00029	0.003	0.01568	0.001218	0	0.000315	0.012	0.044799	1643.604	358.4629	28.75726	0.005361	0.202685	0.031215	0.011244	0.005082	0.028906	0.023536	0.748381	0.156108	0.025093	0.127691	2.199896	0.034344	1.092036	0.170919	0.025093	0.127691	2.199896	0.045	0.487648	5.787296	3.161678	0.016249	0.003544	0.000284
San Mateo	2029	OBUS	Aggregate	Aggregate	Diesel	1239.914	76476.57	76476.57	0	12176.3	0.745423	4.854045	1.373543	0.008508	0.0028	0	0.003	0.017495	0.008892	0.002927	0	0.012	0.049984	1170.234	1172.723	0	0.000842	0.014416	0	0.184371	0.184763	0	0.018119	0.310363	0	0	0	0	0.020627	0.353324	0	0	0	0	0.218178	0.088522	5.792853	0	0.011081	0.011105	0
San Mateo	2029	OBUS	Aggregate	Aggregate	Electricity	13.26988	997.9386	0	997.9386	265.5038	0	0	0	0	0	0	0.003	0.00794	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	OBUS	Aggregate	Aggregate	Natural Ga	13.88454	894.1709	894.1709	0	123.5724	0.108713	1.502935	0	0.001449	0.004722	0	0.003	0.016148	0.001576	0.005135	0	0.012	0.046137	939.9416	1174.524	0	0.834493	3.811194	0	0.191613	0.239434	0	0.011923	0.054454	0	0	0	0	0.851661	3.889603	0	0	0	0	1.06	3.374745	9.207349	0	0	0	0
San Mateo	2029	SBUS	Aggregate	Aggregate	Gasoline	85.79519	4011.661	4011.661	0	343.1808	0.529841	0.769401	0.569197	0.001062	0	0.000722	0.002	0.015721	0.001155	0	0.000785	0.008	0.044917	760.9849	2440.711	55.96647	0.011563	2.445754	0.07681	0.026561	0.07506	0.053342	0.056478	10.64152	0.442656	0.101137	0.324575	1.791736	0.082412	15.52808	0.484652	0.101137	0.324575	1.791736	0.045	1.463603	82.24088	10.52589	0.007523	0.024129	0.000553
San Mateo	2029	SBUS	Aggregate	Aggregate	Diesel	163.7264	3605.133	3605.133	0	2370.759	3.187035	19.33704	0.537357	0.015962	0.014391	0	0.003	0.015721	0.016684	0.015041	0	0.012	0.044917	1118.41	2173.987	0	0.002444	0.007958	0	0.176206	0.342513	0	0.052621	0.17133	0	0	0	0	0.059906	0.195046	0	0	0	0	0.164435	0.167221	5.136152	0	0.010591	0.020586	0
San Mateo	2029	SBUS	Aggregate	Aggregate	Electricity	12.56211	465.1312	0	465.1312	114.1625	0	0	0	0	0	0	0.002	0.00235	0.00786	0	0	0	0.009401	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	SBUS	Aggregate	Aggregate	Natural Ga	7.486654	178.8835	178.8835	0	108.4067	0.454932	5.204524	0	0.003378	0.01294	0	0.003	0.015721	0.003674	0.014074	0	0.012	0.044917	1206.738	4118.684	0	3.128816	14.43719	0	0.246001	0.839621	0	0.044705	0.206279	0	0	0	0	3.193186	14.73421	0	0	0	0	1.06	10.20027	24.31637	0	0	0	0
San Mateo	2029	UBUS	Aggregate	Aggregate	Gasoline	62.34205	4238.336	4238.336	0	249.3682	0.034971	0	0.320633	0.001201	0	0.000164	0.002	0.002072	0.032331	0.001307	0	0.000179	0.008289	0.092373	932.5076	0	37.85642	0.001555	0	0.032586	0.004451	0	0.050422	0.004308	0	0.116323	0.023827	0.090543	0.31766	0.006287	0	0.127359	0.023827	0.090543	0.31766	0.045	0.560067	0	6.154879	0.009219	0	0.000374
San Mateo	2029	UBUS	Aggregate	Aggregate	Diesel	238.4518	18140.33	18140.33	0	953.8071	0.376197	0	0	0.006839	0	0	0.002	0.008109	0.0385	0.007148	0	0	0.032436	0.11	1228.547	0	0	0.003149	0	0	0.193558	0	0	0.067807	0	0	0	0	0.077193	0	0	0	0	0	0.22	0.077324	0	0	0.011641	0	0
San Mateo	2029	UBUS	Aggregate	Aggregate	Electricity	71.54628	6764.167	0	6764.167	286.1851	0	0	0	0	0	0	0.002	0.007648	0.01925	0	0	0	0.030591	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	2029	UBUS	Aggregate	Aggregate	Natural Ga	75.54888	5381.015	5381.015	0	302.1955	0.055771	0	0	0.000273	0	0	0.007786	0.0385	0.000286	0	0	0	0.031145	0.11	1266.418	0	0	4.115508	0	0	0.258168	0	0	0.058802	0	0	0	0	4.200177	0	0	0	0	0	0.97	46.76788	0	0	0	0	0

Attachment 4: Project Construction and Operational Emissions and Health Risk Calculations

Construction Health Risk Assessment and Calculations

Serramonte Del Rey, Daly City, CA

Land Use	Year	Unmitigated DPM	DPM EMFAC2021	Unmitigated Emissions	Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Unmitigated Emissions
Phase 1	2023	0.0466	0.0012	0.0478	0.0857	0.0012	0.0869
Parcel B	2024	0.0621	0.0019	0.0640	0.0003	0.0020	0.0023
Phase 2	2025-2026	0.0891	0.0035	0.0926	0.1148	0.0044	0.1192
Parcels C & D	2027	0.0274	0.0014	0.0288	0.0000	0.0018	0.0018
Phase 3	2028	0.0604	0.0039	0.0643	0.0889	0.0051	0.0940
Parcels E & F	2029	0.0263	0.0022	0.0285	0.0000	0.0028	0.0028

	Year	Mitigated DPM	DPM EMFAC2021	Mitigated Emissions	Mitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Mitigated Emissions
Phase 1	2023	0.0041	0.0012	0.0053	0.0386	0.0012	0.0398
Parcel B	2024	0.0123	0.0019	0.0142	0.0003	0.0020	0.0023
Phase 2	2025-2026	0.0117	0.0035	0.0152	0.0517	0.0044	0.0561
Parcels C & D	2027	0.0041	0.0014	0.0055	0.0000	0.0018	0.0018
Phase 3	2028	0.0078	0.0039	0.0117	0.0400	0.0051	0.0451
Parcels E & F	2029	0.0039	0.0022	0.0060	0.0000	0.0028	0.0028

Serramonte Del Rey, Daly City, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation

Construction Year	Construction Area	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2023	Phase 1 Parcel B	0.048	DPM_G	95.6	0.041	5.15E-03	16,831	**3.06E-07**
2024		0.064	DPM_P1	128.0	0.055	6.89E-03	16,831	**4.10E-07**
2025-2026	Phase 2 Parcels C & D	0.093	DPM_P1	185.3	0.079	9.98E-03	16,949	**5.89E-07**
2027		0.029	DPM_DE	57.7	0.025	3.11E-03	16,949	**1.83E-07**
2028	Phase 3 Parcels E & F	0.064	DPM_P3A	128.6	0.055	6.93E-03	27,174	**2.55E-07**
2029		0.028	DPM_P3B	56.9	0.024	3.06E-03	27,174	**1.13E-07**
Total		***0.326***		***652.1***	***0.2787***	***0.0351***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	260	
hours/year =	2340	

DPM Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Construction Area	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2023	Phase 1 Parcel B	0.005	DPM_G	10.6	0.0045	5.69E-04	16,831	**3.38E-08**
2024		0.014	DPM_P1	28.4	0.0121	1.53E-03	16,831	**9.09E-08**
2025-2026	Phase 2 Parcels C & D	0.015	DPM_P1	30.4	0.0130	1.64E-03	16,949	**9.67E-08**
2027		0.005	DPM_DE	11.0	0.0047	5.92E-04	16,949	**3.49E-08**
2028	Phase 3 Parcels E & F	0.012	DPM_P3A	23.4	0.0100	1.26E-03	27,174	**4.65E-08**
2029		0.006	DPM_P3B	12.1	0.0052	6.49E-04	27,174	**2.39E-08**
Total		***0.058***		***115.9***	***0.0495***	***0.0062***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	260	
hours/year =	2340	

Serramonte Del Rey, Daly City, CA

PM2.5 Fugitive Dust Emissions for Modeling - Without Mitigation

Construction Year	Construction Area	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2023	Phase 1 Parcel B	FUG_G	0.087	173.9	0.0743	9.36E-03	16,831	**5.56E-07**
2024		FUG_P1	0.002	4.6	0.0020	2.46E-04	16,831	**1.46E-08**
2025-2026	Phase 2 Parcels C & D	FUG_P1	0.119	238.3	0.1018	1.28E-02	16,949	**7.57E-07**
2027		FUG_DE	0.002	3.6	0.0015	1.95E-04	16,949	**1.15E-08**
2028	Phase 3 Parcels E & F	FUG_P3A	0.094	188.0	0.0803	1.01E-02	27,174	**3.73E-07**
2029		FUG_P3B	0.003	5.7	0.0024	3.05E-04	27,174	**1.12E-08**
Total			***0.307***	***614.0***	***0.2624***	***0.0331***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	260	
hours/year =	2340	

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Construction Year	Construction Area	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2023	Phase 1 Parcel B	FUG_G	0.040	79.7	0.0340	4.29E-03	16,831	**2.55E-07**
2024		FUG_P1	0.002	4.6	0.0020	2.46E-04	16,831	**1.46E-08**
2025-2026	Phase 2 Parcels C & D	FUG_P1	0.056	112.1	0.0479	6.04E-03	16,949	**3.56E-07**
2027		FUG_DE	0.002	3.6	0.0015	1.95E-04	16,949	**1.15E-08**
2028	Phase 3 Parcels E & F	FUG_P3A	0.045	90.2	0.0385	4.86E-03	27,174	**1.79E-07**
2029		FUG_P3B	0.003	5.7	0.0024	3.05E-04	27,174	**1.12E-08**
Total			***0.148***	***295.8***	***0.1264***	***0.0159***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	260	
hours/year =	2340	

Serramonte Del Rey, Daly City, CA - Construction Health Impact Summary

Maximum Impacts at Cancer Risk MEI Residential Location - Without Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk* (per million): Infant/Child	Cancer Risk* (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration* ($\mu g/m^3$)
2023	0.0460	0.1018	8.18	0.13	0.01	0.15
2024	0.0617	0.0027	10.13	0.18	0.01	0.06
2025-2026	0.0109	0.0311	0.28	0.03	0.002	0.05
2027	0.0034	0.0005	0.09	0.01	0.001	0.01
2028	0.0162	0.0747	0.42	0.05	0.003	0.10
2029	0.0072	0.0022	0.19	0.02	0.001	0.01
Total	-	-	**19.28**	**0.42**	-	-
Maximum	0.0617	0.1018	**-**	**-**	**0.01**	**0.15**

* Maximum cancer risk and maximum PM2.5 concentration occur at different receptors.

Maximum Impacts at Cancer Risk MEI Residential Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk* (per million): Infant/Child	Cancer Risk* (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration* ($\mu g/m^3$)
2023	0.0051	0.0467	0.90	0.01	0.0010	0.05
2024	0.0137	0.0027	2.25	0.04	0.003	0.02
2025-2026	0.0018	0.0146	0.05	0.01	0.0004	0.02
2027	0.0007	0.0005	0.02	0.002	0.0001	0.002
2028	0.0030	0.0359	0.08	0.01	0.001	0.04
2029	0.0015	0.0022	0.04	0.004	0.0003	0.005
Total	-	-	**3.33**	**0.07**	-	-
Maximum	0.0137	0.0467	**-**	**-**	**0.003**	**0.05**

* Maximum cancer risk and maximum PM2.5 concentration occur at different receptors.
- Tier 4 Interim Engine and BMPs Mitigation

Maximum Impacts at PM2.5 MEI at Summit Shasta High School - Without Mitigation

Construction Year	Unmitigated Emissions: Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Unmitigated Emissions: Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Child Cancer Risk* (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration* ($\mu g/m^3$)
2023	0.0047	0.0101	0.29	0.001	0.02
2024	0.0063	0.0003	0.39	0.001	0.01
2025-2026	0.0868	0.2018	5.43	0.02	0.29
2027	0.0270	0.0031	1.69	0.01	0.03
2028	0.0459	0.0920	2.87	0.01	0.14
2029	0.0203	0.0028	1.27	0.004	0.02
Total	-	-	**11.96**	-	-
Maximum	0.0868	0.2018	**-**	**0.02**	**0.29**

* Maximum cancer risk and maximum PM2.5 concentration occur at different receptors.

Maximum Impacts at PM2.5 MEI at Summit Shasta High School - With Mitigation

Construction Year	Unmitigated Emissions: Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Unmitigated Emissions: Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Child Cancer Risk* (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration* ($\mu g/m^3$)
2023	0.0005	0.0046	0.03	0.0001	0.01
2024	0.0014	0.0003	0.09	0.0003	0.00
2025-2026	0.0143	0.0949	0.89	0.003	0.11
2027	0.0051	0.0031	0.32	0.001	0.01
2028	0.0084	0.0442	0.52	0.002	0.05
2029	0.0043	0.0028	0.27	0.001	0.01
Total	-	-	**2.13**	-	-
Maximum	0.0143	0.0949	**-**	**0.003**	**0.11**

* Maximum cancer risk and maximum PM2.5 concentration occur at different receptors.
- Tier 4 Interim Engine and BMPs Mitigation

Serramonte Del Rey, Daly City, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information						
							Modeled				Maximum		
Exposure Year	Exposure Duration (years)	Age	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.0460	10	0.63	2023	0.0460	-	-			
1	1	0 - 1	2023	0.0460	10	7.56	2023	0.0460	1	0.13	0.0092	0.1018	0.1469
2	1	1 - 2	2024	0.0617	10	10.13	2024	0.0617	1	0.18	0.0123	0.0027	0.0643
3	1	2 - 3	2025-2026	0.0109	3	0.28	2025-2026	0.0109	1	0.03	0.0022	0.0311	0.0516
4	1	3 - 4	2027	0.0034	3	0.09	2027	0.0034	1	0.01	0.0007	0.0005	0.0069
5	1	4 - 5	2028	0.0162	3	0.42	2028	0.0162	1	0.05	0.0032	0.0747	0.1032
6	1	5 - 6	2029	0.0072	3	0.19	2029	0.0072	1	0.02	0.0014	0.0022	0.0148
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**19.28**				**0.42**			

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					Maximum	
							Modeled						
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Infant/Child Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Adult Cancer Risk	Hazard	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	Index	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2023	0.0444	10	0.60	2023	0.0444	-	-			
1	1	0 - 1	2023	0.0444	10	7.30	2023	0.0444	1	0.13	0.0089	0.0963	0.1403
2	1	1 - 2	2024	0.0595	10	9.78	2024	0.0595	1	0.17	0.0119	0.0025	0.0620
3	1	2 - 3	2025-2026	0.0113	3	0.29	2025-2026	0.0113	1	0.03	0.0023	0.0257	0.0440
4	1	3 - 4	2027	0.0035	3	0.09	2027	0.0035	1	0.01	0.0007	0.0004	0.0061
5	1	4 - 5	2028	0.0166	3	0.43	2028	0.0166	1	0.05	0.0033	0.0573	0.0879
6	1	5 - 6	2029	0.0074	3	0.19	2029	0.0074	1	0.02	0.0015	0.0017	0.0153
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**18.68**				**0.41**			

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information						
							Modeled				Maximum		
Exposure Year	Exposure Duration (years)	Age	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.0423	10	0.57	2023	0.0423	-	-			
1	1	0 - 1	2023	0.0423	10	6.94	2023	0.0423	1	0.12	0.0085	0.0915	0.1336
2	1	1 - 2	2024	0.0566	10	9.30	2024	0.0566	1	0.16	0.0113	0.0024	0.0590
3	1	2 - 3	2025-2026	0.0116	3	0.30	2025-2026	0.0116	1	0.03	0.0023	0.0245	0.0419
4	1	3 - 4	2027	0.0036	3	0.09	2027	0.0036	1	0.01	0.0007	0.0004	0.0058
5	1	4 - 5	2028	0.0170	3	0.44	2028	0.0170	1	0.05	0.0034	0.0339	0.0620
6	1	5 - 6	2029	0.0075	3	0.19	2029	0.0075	1	0.02	0.0015	0.0010	0.0135
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**17.84**				**0.40**			

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Summit Shasta High School (+14 years old) - 1.5 meters - Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	240
A =	1	1	1
EF =	250	250	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)
1	1	14 - 15	2023	0.0047	3	0.29
2	1	15 - 16	2024	0.0063	3	0.39
3	1	16 - 17	2025-2026	0.0868	3	5.43
4	1	17 - 18	2027	0.0270	3	1.69
5	1	18 - 19	2028	0.0459	3	2.87
6	1	19 - 20	2029	0.0203	3	1.27
7	1			0.0000	3	0.00
8	1			0.0000	3	0.00
9	1			0.0000	3	0.00
Total Increased Cancer Risk						**11.96**

* Children assumed to be 13 years of age or older with 6 years of Construction Exposure

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.0009	0.0101	0.0152
0.0013	0.0003	0.0071
0.0174	0.2018	0.2885
0.0054	0.0031	0.0300
0.0092	0.0920	0.1362
0.0041	0.0028	0.0228

Serramonte Del Rey, Daly City, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information						
							Modeled				Maximum		
Exposure Year	Exposure Duration (years)	Age	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.0051	10	0.07	2023	0.0051	-	-			
1	1	0 - 1	2023	0.0051	10	0.83	2023	0.0051	1	0.01	0.0010	0.0467	0.0516
2	1	1 - 2	2024	0.0137	10	2.25	2024	0.0137	1	0.04	0.0027	0.0027	0.0163
3	1	2 - 3	2025-2026	0.0018	3	0.05	2025-2026	0.0018	1	0.01	0.0004	0.0146	0.0180
4	1	3 - 4	2027	0.0007	3	0.02	2027	0.0007	1	0.00	0.0001	0.0005	0.0017
5	1	4 - 5	2028	0.0030	3	0.08	2028	0.0030	1	0.01	0.0006	0.0359	0.0411
6	1	5 - 6	2029	0.0015	3	0.04	2029	0.0015	1	0.00	0.0003	0.0022	0.0049
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**3.33**				**0.07**			

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Summit Shasta High School (+14 years old) - 1.5 meters - Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	240
A =	1	1	1
EF =	250	250	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)
1	1	14 - 15	2023	0.0005	3	0.03
2	1	15 - 16	2024	0.0014	3	0.09
3	1	16 - 17	2025-2026	0.0143	3	0.89
4	1	17 - 18	2027	0.0051	3	0.32
5	1	18 - 19	2028	0.0084	3	0.52
6	1	19 - 20	2029	0.0043	3	0.27
7	1			0.0000	3	0.00
8	1			0.0000	3	0.00
9	1			0.0000	3	0.00
Total Increased Cancer Risk						**2.13**

Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0.0001	0.0046	0.0052
0.0003	0.0003	0.0018
0.0029	0.0949	0.1091
0.0010	0.0031	0.0082
0.0017	0.0442	0.0522
0.0009	0.0028	0.0069

* Children assumed to be 13 years of age or older with 6 years of Construction Exposure

CT-EMFAC2017 Emissions Factors for Project Traffic - 2030

File Name: Rev Project Traffic San Mateo (SF) - 2030 - Annual.EM
CT-EMFAC2017 Versic 1.0.2.27401
Run Date: 6/2/2022 11:26
Area: San Mateo (SF)
Analysis Year: 2030
Season: Annual

Vehicle Category	VMT Fraction Across Categor	Diesel VMT F Within Categ	Gas VMT Fraction Within Category
Truck 1	0.017	0.522	0.478
Truck 2	0.014	0.871	0.111
Non-Truck	0.969	0.017	0.942

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correcti CARB P = 60 days N = 365 days

Road Length: 1 miles
Volume: 8,433 vehicles per hour
Number of Hours: 1 hours

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.19%
10 mph	0.61%
15 mph	1.07%
20 mph	2.46%
25 mph	6.08%
30 mph	22.68%
35 mph	8.69%
40 mph	3.46%
45 mph	5.90%
50 mph	5.37%
55 mph	6.05%
60 mph	27.03%
65 mph	10.36%
70 mph	0.03%
75 mph	0.00%

Summary of Emissions and Consumption

Pollutant Name	Running Exhaus (grams)	Running Lo (grams)	Tire Wear (grams)	Brake Wea (grams)	Road Dust (grams)	Total (grams)	Total (US tons)
PM2.5	9.4	-	17.2	141.9	127.4	296	< 0.001
TOG	289.4	227.1	-	-	-	516.5	< 0.001
Diesel PM	2.3	-	-	-	-	2.3	< 0.001
DEOG	7	-	-	-	-	7	< 0.001

END

Project Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA

On-Site Project Traffic Emissions and Modeling Emission Rates

Area Source	Activity	Release Height (m)	Emissions (grams/day)	Emissions (g/s)	Modeled Area (m^2)	Emission Rate $g/s/m^2$
DPM	OnSite Roadways	3.4	2.3	2.66E-05	91,376	2.91E-10
PM2.5	OnSite Roadways	1.3	9.4	1.09E-04	91,376	1.19E-09
TOG Exhaust	OnSite Roadways	1.3	282.4	3.27E-03	91,376	3.58E-08
TOG Evaporative	OnSite Roadways	1.3	227.1	2.63E-03	91,376	2.88E-08
Fugitive PM2.5	OnSite Roadways	1.3	286.5	3.32E-03	91,376	3.63E-08
Total			***807.7***			

Serramonte Del Rey, Daly City, CA - Project Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project Cancer Risk and PM2.5 MEI Receptors (1.5m receptor height)

Emission Year	2025
Receptor Information	Unmitigated Project MEI receptors
Number of Receptors	2
Receptor Height	1.5 meters
Receptor Distances	At Unmitigated Project MEI locations
Meteorological Conditions	
BAAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project Res MEI Cancer Risk Maximum Concentrations - Cancer Risk MEI Location

Meteorological	Concentration (µg/m3)		
Data Years	DPM	Exhaust TOG	Evaporative TOG
2010, 2012, 2013	0.0007	0.0910	0.0732

Project Res MEI PM2.5 Maximum Concentrations - Cancer Risk MEI Location

Meteorological	Concentration (µg/m3)		
Data Years	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2010, 2012, 2013	0.0953	0.0923	0.0030

Project School MEI Cancer Risk Maximum Concentrations - PM2.5 MEI Location

Meteorological	PM2.5 Concentration (µg/m3)		
Data Years	DPM	Exhaust TOG	Evaporative TOG
2010, 2012, 2013	0.0006	0.1078	0.0868

Project School MEI PM2.5 Maximum Concentrations - PM2.5 MEI Location

Meteorological	PM2.5 Concentration (µg/m3)		
Data Years	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2010, 2012, 2013	0.1129	0.1094	0.0036

Serramonte Del Rey, Daly City, CA - Project Traffic Cancer Risk
Impacts at Unmitigated Project MEIs - 1.5 meter receptor heights
28 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10		3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
2	1	1 - 2	2024	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
3	1	2 - 3	2025	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
4	1	3 - 4	2026	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
5	1	4 - 5	2027	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
6	1	5 - 6	2028	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
7	1	6 - 7	2029	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
8	1	7 - 8	2030	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
9	1	8 - 9	2031	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
10	1	9 - 10	2032	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
11	1	10 - 11	2033	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
12	1	11 - 12	2034	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
13	1	12 - 13	2035	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
14	1	13 - 14	2036	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
15	1	14 - 15	2037	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
16	1	15 - 16	2038	3	0.0007	0.0910	0.0732	0.017	0.013	0.0006	0.03
17	1	16-17	2039	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
18	1	17-18	2040	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
19	1	18-19	2041	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
20	1	19-20	2042	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
21	1	20-21	2043	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
22	1	21-22	2044	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
23	1	22-23	2045	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
24	1	23-24	2046	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
25	1	24-25	2047	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
26	1	25-26	2048	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
27	1	26-27	2049	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
28	1	27-28	2050	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
29	1	28-29	2051	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
30	1	29-30	2052	1	0.0007	0.0910	0.0732	0.002	0.001	0.0001	0.00
Total Increased Cancer Risk								0.26	0.209	0.010	**0.48**

Construct	Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
	0.0001	0.09	0.10

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Project Traffic Cancer Risk
Maximum Child Cancer Risk
Child Exposures (1.5 meter receptor heights)
Impacts at Summit Shasta High School (+14 years old), 7-Year Child Exposure - 1.5 meter

Cancer Risk Calculation Method

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = School Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (ScHR/8 hrs)
SHR = Hours of emission source operation
SDay = Modeled number of days per week of source operaion
ScHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant	Child
Age -->	0 - <2	2 - <16
Parameter		
ASF	10	3
8-Hr BR* =	1200	520
ScHR** =	9.00	9.00
SHR =	24	24
SDay =	7	7
A =	1	1
EF =	250	250
AT =	70	70
SAF =	1.13	1.13

* 95th percentile 8-hr breathing rates for moderate intensity activities
** ScHR based on 10 hours school day

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information: Age Sensitivity Factor	Annual TAC Conc (ug/m3): DPM	Exhaust TOG	Evaporative TOG	Cancer Risk (per million): DPM	Exhaust TOG	Evaporative TOG	Total	Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
1	2023	1	14 - 15	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
2	2024	1	15 - 16	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
3	2025	1	16 - 17	3	0.0006	0.1078	0.0868	0.0117	0.0116	0.0006	0.0239	0.0001	0.11	0.11
4	2026	1	17 - 18	3	0.0006	0.1078	0.0868	0.0117	0.0116	0.0006	0.0239			
5	2027	1		3	0.0006	0.1078	0.0868	0.0117	0.0116	0.0006	0.02			
6	2028	1		3	0.0006	0.1078	0.0868	0.0117	0.0116	0.0006	0.02			
7	2029	1		3	0.0006	0.1078	0.0868	0.027	0.027	0.001	0.06			
8	2030	1		3	0.0006	0.1078	0.0868	0.027	0.027	0.001	0.06			
9	2031	1		3	0.0006	0.1078	0.0868	0.027	0.027	0.001	0.06			
Total Increased Cancer Risk								0.1279	0.1271	0.0060	**0.26**			

Project Generators Health Risk Assessment and Calculations

Serramonte Del Rey, Daly City, CA

Standby Emergency Generator Impacts

Off-site Sensitive Receptors

MEI Locations = 1.5 meter receptor height

DPM Emission Rates		
	DPM Emissions per Generator	
	Max Daily	Annual
Source Type	(lb/day)	(lb/year)
Four, 750-kW, 1,005-hp Generator	0.133	48.60
CalEEMod DPM Emissions	0.0243	tons/year

Modeling Information		
Model	AERMOD	
Source	Diesel Generator Engine	
Source Type	Point	
Meteorological Data	2010, 2012, 2013 Fort Funston Meterological Data	
Point Source Stack Parameters		
Generator Engine Size (hp)	1005	
Stack Height (ft)	12.00	1st Level Exhaust Release
Stack Diameter (ft)**	0.60	
Exhaust Gas Flowrate (CFM)*	2527.73	
Stack Exit Velocity (ft/sec)**	149.00	
Exhaust Temperature (˚F)**	872.00	
Emissions Rate (lb/hr)	0.0055	0.0014 Each Gen

* AERMOD default

**BAAQMD default generator parameters

Serramonte Del Rey, Daly City, CA - Project Generator Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations
Impacts at Construction Cancer Risk Residential MEI Receptor, 28-Year Exposure - 1.5m Receptor Height

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Generators Operation Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.00000	10	0.000		
1	1	0 - 1	2023	0.00000	10	0.000		
2	1	1 - 2	2024	0.00000	10	0.000		
3	1	2 - 3	2025	0.00341	3	0.088	0.001	0.003
4	1	3 - 4	2026	0.00341	3	0.088		
5	1	4 - 5	2027	0.00341	3	0.088		
6	1	5 - 6	2028	0.00341	3	0.088		
7	1	6 - 7	2029	0.00341	3	0.088		
8	1	7 - 8	2030	0.00341	3	0.088		
9	1	8 - 9	2031	0.00341	3	0.088		
10	1	9 - 10	2032	0.00341	3	0.088		
11	1	10 - 11	2033	0.00341	3	0.088		
12	1	11 - 12	2034	0.00341	3	0.088		
13	1	12 - 13	2035	0.00341	3	0.088		
14	1	13 - 14	2036	0.00341	3	0.088		
15	1	14 - 15	2037	0.00341	3	0.088		
16	1	15 - 16	2038	0.00341	3	0.088		
17	1	16-17	2039	0.00341	1	0.010		
18	1	17-18	2040	0.00341	1	0.010		
19	1	18-19	2041	0.00341	1	0.010		
20	1	19-20	2042	0.00341	1	0.010		
21	1	20-21	2043	0.00341	1	0.010		
22	1	21-22	2044	0.00341	1	0.010		
23	1	22-23	2045	0.00341	1	0.010		
24	1	23-24	2046	0.00341	1	0.010		
25	1	24-25	2047	0.00341	1	0.010		
26	1	25-26	2048	0.00341	1	0.010		
27	1	26-27	2049	0.00341	1	0.010		
28	1	27-28	2050	0.00341	1	0.010		
29	1	28-29	2051	0.00341	1	0.010		
30	1	29-30	2052	0.00341	1	0.010		
Total Increased Cancer Risk						**1.37**		

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Project Generator Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations
Impacts at Summit Shasta High School (+14 years old), 7-Year Child Exposure - 1.5 meter

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = Student Adjustment Factor (unitless)
= (24 hrs/24 hrs) x (7 days/7 days) x (10/8) = 1.25
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	240
A =	1	1	1
EF =	250	250	250
AT =	70	70	70
SAF =	1.25	1.25	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Project Generators Operation Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)
1	1	14 - 15	2023	0.00000	3	0.00
2	1	15 - 16	2024	0.00000	3	0.00
3	1	16 - 17	2025	0.00240	3	0.05
4	1	17 - 18	2026	0.00034	3	0.01
5	1		2027	0.00034	3	0.01
6	1		2028	0.00034	3	0.01
7	1		2029	0.00034	3	0.01
8	1		2030	0.00034	3	0.01
9	1		2031	0.00034	3	0.01
Total Increased Cancer Risk						**0.09**

* Children assumed to be 14 years of age or older with 7 years of exposure

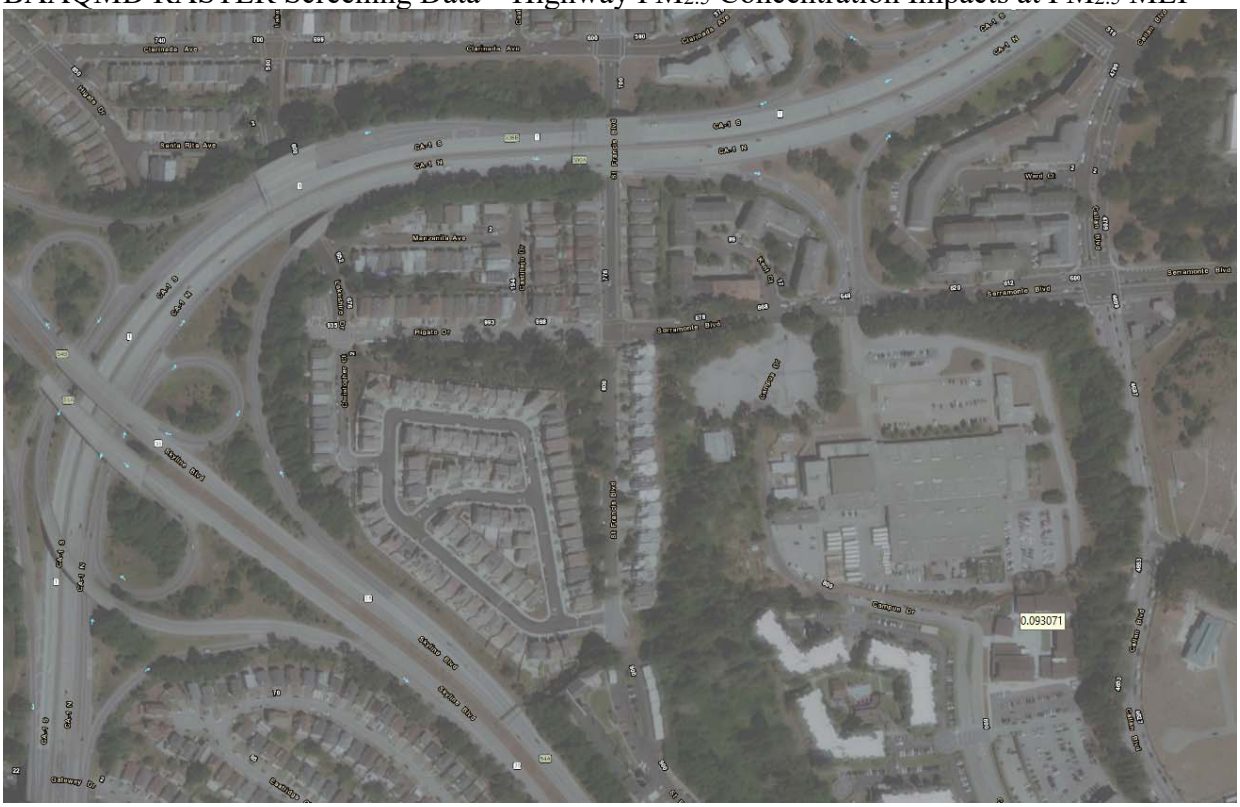
Maximum	
Hazard Index	**Total PM2.5**
0.0005	0.002

Attachment 5: Community Risk Modeling Information and Calculations

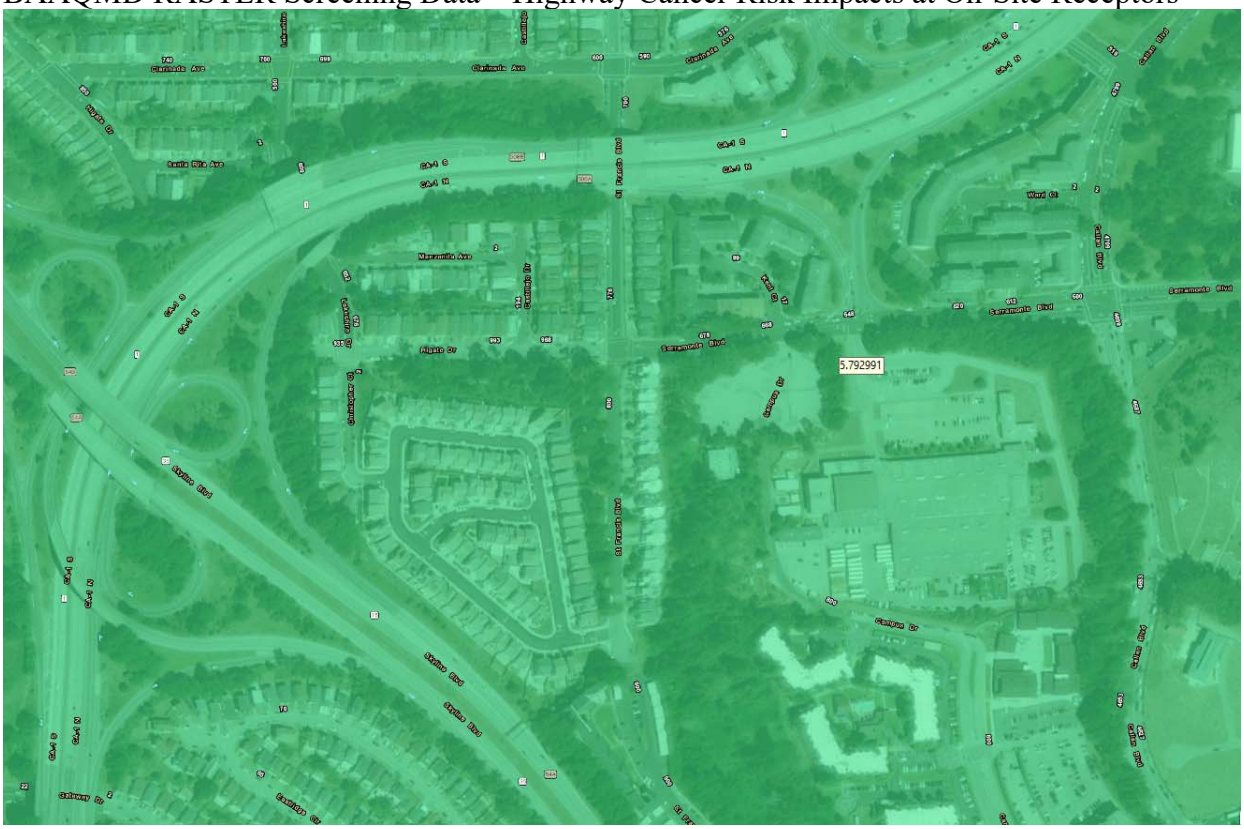
BAAQMD RASTER Screening Data – Highway Cancer Risk Impacts at Cancer Risk MEI



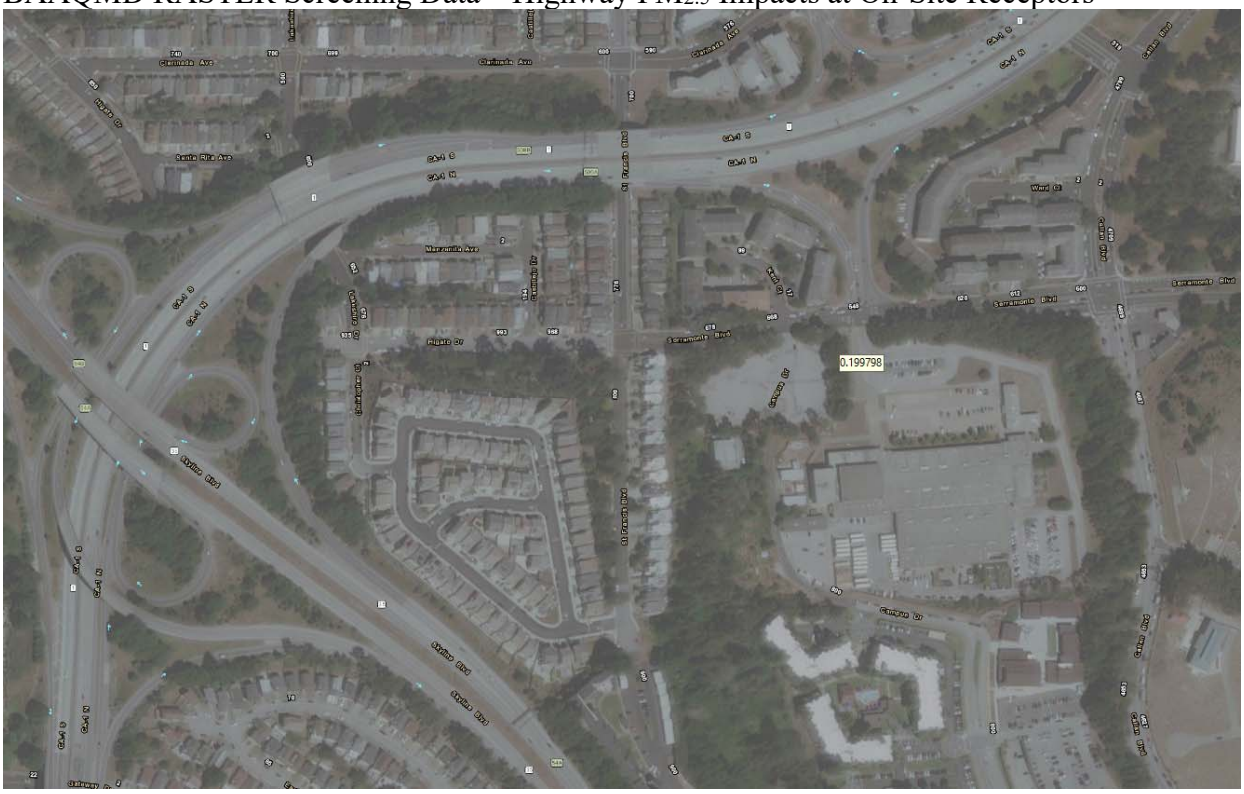
BAAQMD RASTER Screening Data – Highway $PM_{2.5}$ Concentration Impacts at $PM_{2.5}$ MEI



BAAQMD RASTER Screening Data – Highway Cancer Risk Impacts at On-Site Receptors



BAAQMD RASTER Screening Data – Highway $PM_{2.5}$ Impacts at On-Site Receptors



CT-EMFAC2017 Emissions Factors for Mateo County 2023

File Name: Cumul Roads 2023 - San Mateo (SF) - 2023 - Annual.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 2/3/2022 9:42
Area: San Mateo (SF)
Analysis Year: 2023
Season: Annual

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.017	0.482	0.518
Truck 2	0.014	0.87	0.113
Non-Truck	0.969	0.017	0.96

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correction: CARB P = 60 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph
PM2.5	0.008953	0.00577	0.0039	0.002777	0.002092	0.001668	0.001407	0.001256
TOG	0.230055	0.150169	0.101137	0.071679	0.054124	0.043117	0.036109	0.031777
Diesel PM	0.000664	0.000547	0.000427	0.000342	0.000291	0.000264	0.000253	0.000256

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.192095

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002046

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.016805

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.014874

END

Callan Boulevard Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	43.7	3.4	35	13,950	11,526	124,061	1.906E-09	1.406E-09	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00025			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and DPM Emissions - DPM_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.81%	532	2.01E-05	9	6.66%	930	3.51E-05	17	6.50%	907	3.43E-05
2	3.15%	440	1.66E-05	10	8.16%	1138	4.30E-05	18	3.85%	536	2.03E-05
3	2.32%	324	1.22E-05	11	6.33%	883	3.34E-05	19	2.35%	328	1.24E-05
4	1.00%	139	5.25E-06	12	7.66%	1069	4.04E-05	20	1.19%	166	6.29E-06
5	1.00%	139	5.25E-06	13	6.83%	953	3.60E-05	21	3.02%	421	1.59E-05
6	2.16%	301	1.14E-05	14	6.66%	930	3.51E-05	22	5.01%	698	2.64E-05
7	4.67%	652	2.46E-05	15	6.00%	837	3.16E-05	23	3.32%	463	1.75E-05
8	3.35%	467	1.77E-05	16	4.34%	606	2.29E-05	24	0.66%	93	3.50E-06
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM 1
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	1.060E-08	7.817E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001407			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and PM2.5 Emissions - PM25_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	3.29E-05	9	7.12%	993	2.09E-04	17	7.43%	1037	2.18E-04
2	0.41%	58	1.21E-05	10	4.37%	610	1.28E-04	18	8.24%	1149	2.42E-04
3	0.37%	52	1.10E-05	11	4.65%	649	1.36E-04	19	5.72%	798	1.68E-04
4	0.17%	24	5.00E-06	12	5.89%	821	1.73E-04	20	4.30%	600	1.26E-04
5	0.46%	64	1.35E-05	13	6.17%	860	1.81E-04	21	3.25%	453	9.53E-05
6	0.85%	118	2.49E-05	14	6.05%	844	1.77E-04	22	3.31%	462	9.72E-05
7	3.73%	521	1.09E-04	15	7.06%	985	2.07E-04	23	2.48%	346	7.28E-05
8	7.77%	1084	2.28E-04	16	7.19%	1003	2.11E-04	24	1.87%	261	5.50E-05
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	2.721E-07	2.006E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.03611			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	8.43E-04	9	7.12%	993	5.36E-03	17	7.43%	1037	5.59E-03
2	0.41%	58	3.11E-04	10	4.37%	610	3.29E-03	18	8.24%	1149	6.20E-03
3	0.37%	52	2.82E-04	11	4.65%	649	3.50E-03	19	5.72%	798	4.31E-03
4	0.17%	24	1.28E-04	12	5.89%	821	4.43E-03	20	4.30%	600	3.24E-03
5	0.46%	64	3.46E-04	13	6.17%	860	4.64E-03	21	3.25%	453	2.45E-03
6	0.85%	118	6.38E-04	14	6.05%	844	4.56E-03	22	3.31%	462	2.49E-03
7	3.73%	521	2.81E-03	15	7.06%	985	5.31E-03	23	2.48%	346	1.87E-03
8	7.77%	1084	5.85E-03	16	7.19%	1003	5.41E-03	24	1.87%	261	1.41E-03
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	2.566E-07	1.892E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.19210			
Emissions per Vehicle per Mile (g/VMT)	0.03406			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	7.95E-04	9	7.12%	993	5.05E-03	17	7.43%	1037	5.28E-03
2	0.41%	58	2.93E-04	10	4.37%	610	3.11E-03	18	8.24%	1149	5.85E-03
3	0.37%	52	2.66E-04	11	4.65%	649	3.30E-03	19	5.72%	798	4.06E-03
4	0.17%	24	1.21E-04	12	5.89%	821	4.18E-03	20	4.30%	600	3.05E-03
5	0.46%	64	3.27E-04	13	6.17%	860	4.38E-03	21	3.25%	453	2.31E-03
6	0.85%	118	6.02E-04	14	6.05%	844	4.30E-03	22	3.31%	462	2.35E-03
7	3.73%	521	2.65E-03	15	7.06%	985	5.01E-03	23	2.48%	346	1.76E-03
8	7.77%	1084	5.52E-03	16	7.19%	1003	5.10E-03	24	1.87%	261	1.33E-03
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	2.541E-07	1.874E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01487			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03373			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	7.87E-04	9	7.12%	993	5.00E-03	17	7.43%	1037	5.22E-03
2	0.41%	58	2.90E-04	10	4.37%	610	3.07E-03	18	8.24%	1149	5.79E-03
3	0.37%	52	2.63E-04	11	4.65%	649	3.27E-03	19	5.72%	798	4.02E-03
4	0.17%	24	1.20E-04	12	5.89%	821	4.14E-03	20	4.30%	600	3.02E-03
5	0.46%	64	3.23E-04	13	6.17%	860	4.34E-03	21	3.25%	453	2.28E-03
6	0.85%	118	5.96E-04	14	6.05%	844	4.25E-03	22	3.31%	462	2.33E-03
7	3.73%	521	2.62E-03	15	7.06%	985	4.96E-03	23	2.48%	346	1.75E-03
8	7.77%	1084	5.46E-03	16	7.19%	1003	5.05E-03	24	1.87%	261	1.32E-03
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Callan Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project MEI Receptors, Cancer Risk and PM2.5 MEIs 1.5m receptor heights (1st floor)

Emission Year	2023
Receptor Information	Project MEI Receptors
Number of Receptors	2
Receptor Height	1st Floor, 1.5 meters
Receptor Distances	At Cancer Risk amd PM2.5 MEI locations
Meteorological Conditions	
BAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project Cancer Risk MEI, Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2010, 2012, 2013	0.0002	0.0305	0.0288

Project PM2.5 Concentration MEI, PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2010, 2012, 2013	0.0189	0.0182	0.0008

Serramonte Del Rey, Daly City, CA - Callan Blvd Cancer Risk & PM2.5
Impacts at Project MEIs - 1.5 meter receptor heights (1st floor)
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2023	10	0.0002	0.0305	0.0288	0.003	0.002	0.0001	0.01
1	1	0 - 1	2023	10	0.0002	0.0305	0.0288	0.033	0.029	0.0016	0.06
2	1	1 - 2	2024	10	0.0002	0.0305	0.0288	0.033	0.029	0.0016	0.06
3	1	2 - 3	2025	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
4	1	3 - 4	2026	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
5	1	4 - 5	2027	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
6	1	5 - 6	2028	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
7	1	6 - 7	2029	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
8	1	7 - 8	2030	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
9	1	8 - 9	2031	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
10	1	9 - 10	2032	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
11	1	10 - 11	2033	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
12	1	11 - 12	2034	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
13	1	12 - 13	2035	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
14	1	13 - 14	2036	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
15	1	14 - 15	2037	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
16	1	15 - 16	2038	3	0.0002	0.0305	0.0288	0.005	0.005	0.0003	0.01
17	1	16-17	2039	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
18	1	17-18	2040	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
19	1	18-19	2041	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
20	1	19-20	2042	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
21	1	20-21	2043	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
22	1	21-22	2044	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
23	1	22-23	2045	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
24	1	23-24	2046	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
25	1	24-25	2047	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
26	1	25-26	2048	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
27	1	26-27	2049	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
28	1	27-28	2050	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
29	1	28-29	2051	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
30	1	29-30	2052	1	0.0002	0.0305	0.0288	0.001	0.001	0.0000	0.00
Total Increased Cancer Risk								0.15	0.130	0.007	**0.29**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00004	0.02	0.02

* Third trimester of pregnancy

Hickey Boulevard Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_HIC	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	67.7	3.4	35	17,950	7,668	82,541	1.583E-09	1.167E-09	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00025			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and DPM Emissions - DPM_HIC

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.81%	685	1.11E-05	9	6.66%	1196	1.94E-05	17	6.50%	1167	1.89E-05
2	3.15%	566	9.18E-06	10	8.16%	1464	2.38E-05	18	3.85%	690	1.12E-05
3	2.32%	417	6.76E-06	11	6.33%	1137	1.85E-05	19	2.35%	422	6.86E-06
4	1.00%	179	2.90E-06	12	7.66%	1375	2.23E-05	20	1.19%	214	3.47E-06
5	1.00%	179	2.90E-06	13	6.83%	1226	1.99E-05	21	3.02%	541	8.79E-06
6	2.16%	387	6.28E-06	14	6.66%	1196	1.94E-05	22	5.01%	899	1.46E-05
7	4.67%	839	1.36E-05	15	6.00%	1077	1.75E-05	23	3.32%	595	9.66E-06
8	3.35%	601	9.75E-06	16	4.34%	780	1.27E-05	24	0.66%	119	1.93E-06
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM 1
Year = **2023**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	8.804E-09	6.492E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001407			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and PM2.5 Emissions - PM25_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	1.82E-05	9	7.12%	1278	1.15E-04	17	7.43%	1334	1.20E-04
2	0.41%	74	6.69E-06	10	4.37%	785	7.09E-05	18	8.24%	1479	1.33E-04
3	0.37%	67	6.07E-06	11	4.65%	835	7.54E-05	19	5.72%	1027	9.27E-05
4	0.17%	31	2.76E-06	12	5.89%	1057	9.54E-05	20	4.30%	772	6.97E-05
5	0.46%	83	7.45E-06	13	6.17%	1107	9.99E-05	21	3.25%	583	5.27E-05
6	0.85%	152	1.37E-05	14	6.05%	1086	9.81E-05	22	3.31%	595	5.37E-05
7	3.73%	670	6.05E-05	15	7.06%	1267	1.14E-04	23	2.48%	446	4.02E-05
8	7.77%	1395	1.26E-04	16	7.19%	1291	1.17E-04	24	1.87%	336	3.04E-05
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	2.259E-07	1.666E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.03611			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	4.66E-04	9	7.12%	1278	2.96E-03	17	7.43%	1334	3.09E-03
2	0.41%	74	1.72E-04	10	4.37%	785	1.82E-03	18	8.24%	1479	3.43E-03
3	0.37%	67	1.56E-04	11	4.65%	835	1.93E-03	19	5.72%	1027	2.38E-03
4	0.17%	31	7.08E-05	12	5.89%	1057	2.45E-03	20	4.30%	772	1.79E-03
5	0.46%	83	1.91E-04	13	6.17%	1107	2.56E-03	21	3.25%	583	1.35E-03
6	0.85%	152	3.52E-04	14	6.05%	1086	2.52E-03	22	3.31%	595	1.38E-03
7	3.73%	670	1.55E-03	15	7.06%	1267	2.93E-03	23	2.48%	446	1.03E-03
8	7.77%	1395	3.23E-03	16	7.19%	1291	2.99E-03	24	1.87%	336	7.79E-04
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	2.131E-07	1.571E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.19210			
Emissions per Vehicle per Mile (g/VMT)	0.03406			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	4.39E-04	9	7.12%	1278	2.79E-03	17	7.43%	1334	2.92E-03
2	0.41%	74	1.62E-04	10	4.37%	785	1.72E-03	18	8.24%	1479	3.23E-03
3	0.37%	67	1.47E-04	11	4.65%	835	1.82E-03	19	5.72%	1027	2.24E-03
4	0.17%	31	6.68E-05	12	5.89%	1057	2.31E-03	20	4.30%	772	1.69E-03
5	0.46%	83	1.80E-04	13	6.17%	1107	2.42E-03	21	3.25%	583	1.27E-03
6	0.85%	152	3.32E-04	14	6.05%	1086	2.37E-03	22	3.31%	595	1.30E-03
7	3.73%	670	1.46E-03	15	7.06%	1267	2.77E-03	23	2.48%	446	9.74E-04
8	7.77%	1395	3.05E-03	16	7.19%	1291	2.82E-03	24	1.87%	336	7.35E-04
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	2.110E-07	1.556E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01487			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03373			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	4.35E-04	9	7.12%	1278	2.76E-03	17	7.43%	1334	2.89E-03
2	0.41%	74	1.60E-04	10	4.37%	785	1.70E-03	18	8.24%	1479	3.20E-03
3	0.37%	67	1.46E-04	11	4.65%	835	1.81E-03	19	5.72%	1027	2.22E-03
4	0.17%	31	6.62E-05	12	5.89%	1057	2.29E-03	20	4.30%	772	1.67E-03
5	0.46%	83	1.79E-04	13	6.17%	1107	2.40E-03	21	3.25%	583	1.26E-03
6	0.85%	152	3.29E-04	14	6.05%	1086	2.35E-03	22	3.31%	595	1.29E-03
7	3.73%	670	1.45E-03	15	7.06%	1267	2.74E-03	23	2.48%	446	9.64E-04
8	7.77%	1395	3.02E-03	16	7.19%	1291	2.79E-03	24	1.87%	336	7.28E-04
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Hickey Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project MEI Receptors, Cancer Risk and PM2.5 MEIs 1.5m receptor heights (1st floor)

Emission Year	2023
Receptor Information	Project MEI Receptors
Number of Receptors	2
Receptor Height	1st Floor, 1.5 meters
Receptor Distances	At Cancer Risk amd PM2.5 MEI locations
Meteorological Conditions	
BAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project Cancer Risk MEI, Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2010, 2012, 2013	0.00002	0.0019	0.0018

Project PM2.5 Concentration MEI, PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2010, 2012, 2013	0.0059	0.0057	0.0002

Serramonte Del Rey, Daly City, CA - Hickey Blvd Cancer Risk & PM2.5 Impacts at Project MEIs - 1.5 meter receptor heights (1st floor) 30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2023	10	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
1	1	0 - 1	2023	10	0.0000	0.0019	0.0018	0.003	0.002	0.0001	0.01
2	1	1 - 2	2024	10	0.0000	0.0019	0.0018	0.003	0.002	0.0001	0.01
3	1	2 - 3	2025	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
4	1	3 - 4	2026	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
5	1	4 - 5	2027	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
6	1	5 - 6	2028	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
7	1	6 - 7	2029	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
8	1	7 - 8	2030	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
9	1	8 - 9	2031	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
10	1	9 - 10	2032	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
11	1	10 - 11	2033	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
12	1	11 - 12	2034	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
13	1	12 - 13	2035	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
14	1	13 - 14	2036	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
15	1	14 - 15	2037	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
16	1	15 - 16	2038	3	0.0000	0.0019	0.0018	0.001	0.000	0.0000	0.00
17	1	16-17	2039	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
18	1	17-18	2040	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
19	1	18-19	2041	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
20	1	19-20	2042	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
21	1	20-21	2043	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
22	1	21-22	2044	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
23	1	22-23	2045	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
24	1	23-24	2046	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
25	1	24-25	2047	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
26	1	25-26	2048	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
27	1	26-27	2049	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
28	1	27-28	2050	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
29	1	28-29	2051	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
30	1	29-30	2052	1	0.0000	0.0019	0.0018	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.01	0.008	0.000	**0.02**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.000004	0.01	0.01

* Third trimester of pregnancy

Serramonte Boulevard Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	67.7	3.4	25	11,565	20,104	216,401	1.173E-09	8.650E-10	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.00029			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and DPM Emissions - DPM_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.81%	441	2.16E-05	9	6.66%	771	3.77E-05	17	6.50%	752	3.68E-05
2	3.15%	364	1.78E-05	10	8.16%	943	4.62E-05	18	3.85%	445	2.18E-05
3	2.32%	269	1.31E-05	11	6.33%	732	3.58E-05	19	2.35%	272	1.33E-05
4	1.00%	115	5.63E-06	12	7.66%	886	4.34E-05	20	1.19%	138	6.75E-06
5	1.00%	115	5.63E-06	13	6.83%	790	3.87E-05	21	3.02%	349	1.71E-05
6	2.16%	249	1.22E-05	14	6.66%	771	3.77E-05	22	5.01%	579	2.83E-05
7	4.67%	541	2.65E-05	15	6.00%	694	3.40E-05	23	3.32%	384	1.88E-05
8	3.35%	387	1.90E-05	16	4.34%	502	2.46E-05	24	0.66%	77	3.76E-06
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM 1
Year = **2023**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	8.434E-09	6.219E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.002092			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and PM2.5 Emissions - PM25_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	130	4.56E-05	9	7.12%	823	2.90E-04	17	7.43%	860	3.02E-04
2	0.41%	48	1.68E-05	10	4.37%	506	1.78E-04	18	8.24%	953	3.35E-04
3	0.37%	43	1.53E-05	11	4.65%	538	1.89E-04	19	5.72%	662	2.33E-04
4	0.17%	20	6.93E-06	12	5.89%	681	2.40E-04	20	4.30%	498	1.75E-04
5	0.46%	53	1.87E-05	13	6.17%	713	2.51E-04	21	3.25%	376	1.32E-04
6	0.85%	98	3.45E-05	14	6.05%	700	2.46E-04	22	3.31%	383	1.35E-04
7	3.73%	432	1.52E-04	15	7.06%	816	2.87E-04	23	2.48%	287	1.01E-04
8	7.77%	899	3.16E-04	16	7.19%	832	2.93E-04	24	1.87%	217	7.63E-05
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	2.182E-07	1.609E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.05412			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	130	1.18E-03	9	7.12%	823	7.49E-03	17	7.43%	860	7.83E-03
2	0.41%	48	4.35E-04	10	4.37%	506	4.61E-03	18	8.24%	953	8.67E-03
3	0.37%	43	3.95E-04	11	4.65%	538	4.90E-03	19	5.72%	662	6.02E-03
4	0.17%	20	1.79E-04	12	5.89%	681	6.20E-03	20	4.30%	498	4.53E-03
5	0.46%	53	4.84E-04	13	6.17%	713	6.49E-03	21	3.25%	376	3.42E-03
6	0.85%	98	8.92E-04	14	6.05%	700	6.37E-03	22	3.31%	383	3.49E-03
7	3.73%	432	3.93E-03	15	7.06%	816	7.43E-03	23	2.48%	287	2.61E-03
8	7.77%	899	8.18E-03	16	7.19%	832	7.57E-03	24	1.87%	217	1.97E-03
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	1.922E-07	1.417E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle per Hour (g/hour)	1.19210			
Emissions per Vehicle per Mile (g/VMT)	0.04768			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	130	1.04E-03	9	7.12%	823	6.60E-03	17	7.43%	860	6.89E-03
2	0.41%	48	3.83E-04	10	4.37%	506	4.06E-03	18	8.24%	953	7.64E-03
3	0.37%	43	3.48E-04	11	4.65%	538	4.31E-03	19	5.72%	662	5.31E-03
4	0.17%	20	1.58E-04	12	5.89%	681	5.46E-03	20	4.30%	498	3.99E-03
5	0.46%	53	4.27E-04	13	6.17%	713	5.72E-03	21	3.25%	376	3.01E-03
6	0.85%	98	7.86E-04	14	6.05%	700	5.61E-03	22	3.31%	383	3.07E-03
7	3.73%	432	3.46E-03	15	7.06%	816	6.55E-03	23	2.48%	287	2.30E-03
8	7.77%	899	7.21E-03	16	7.19%	832	6.67E-03	24	1.87%	217	1.74E-03
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	1.360E-07	1.003E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01487			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03373			

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	130	7.35E-04	9	7.12%	823	4.67E-03	17	7.43%	860	4.88E-03
2	0.41%	48	2.71E-04	10	4.37%	506	2.87E-03	18	8.24%	953	5.40E-03
3	0.37%	43	2.46E-04	11	4.65%	538	3.05E-03	19	5.72%	662	3.75E-03
4	0.17%	20	1.12E-04	12	5.89%	681	3.86E-03	20	4.30%	498	2.82E-03
5	0.46%	53	3.02E-04	13	6.17%	713	4.05E-03	21	3.25%	376	2.13E-03
6	0.85%	98	5.56E-04	14	6.05%	700	3.97E-03	22	3.31%	383	2.17E-03
7	3.73%	432	2.45E-03	15	7.06%	816	4.63E-03	23	2.48%	287	1.63E-03
8	7.77%	899	5.10E-03	16	7.19%	832	4.72E-03	24	1.87%	217	1.23E-03
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Serramonte Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project MEI Receptors, Cancer Risk and PM2.5 MEIs 1.5m receptor heights (1st floor)

Emission Year	2023
Receptor Information	Project MEI Receptors
Number of Receptors	2
Receptor Height	1st Floor, 1.5 meters
Receptor Distances	At Cancer Risk amd PM2.5 MEI locations
Meteorological Conditions	
BAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project Cancer Risk MEI, Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2010, 2012, 2013	0.0011	0.2757	0.2429

Project PM2.5 Concentration MEI, PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2010, 2012, 2013	0.0089	0.0084	0.0005

Serramonte Del Rey, Daly City, CA - Serramonte Blvd Cancer Risk & PM2.5
Impacts at Project MEIs - 1.5 meter receptor heights (1st floor)
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2023	10	0.0011	0.2757	0.2429	0.014	0.021	0.0011	0.04
1	1	0 - 1	2023	10	0.0011	0.2757	0.2429	0.172	0.259	0.0134	0.44
2	1	1 - 2	2024	10	0.0011	0.2757	0.2429	0.172	0.259	0.0134	0.44
3	1	2 - 3	2025	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
4	1	3 - 4	2026	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
5	1	4 - 5	2027	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
6	1	5 - 6	2028	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
7	1	6 - 7	2029	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
8	1	7 - 8	2030	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
9	1	8 - 9	2031	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
10	1	9 - 10	2032	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
11	1	10 - 11	2033	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
12	1	11 - 12	2034	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
13	1	12 - 13	2035	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
14	1	13 - 14	2036	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
15	1	14 - 15	2037	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
16	1	15 - 16	2038	3	0.0011	0.2757	0.2429	0.027	0.041	0.0021	0.07
17	1	16-17	2039	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
18	1	17-18	2040	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
19	1	18-19	2041	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
20	1	19-20	2042	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
21	1	20-21	2043	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
22	1	21-22	2044	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
23	1	22-23	2045	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
24	1	23-24	2046	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
25	1	24-25	2047	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
26	1	25-26	2048	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
27	1	26-27	2049	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
28	1	27-28	2050	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
29	1	28-29	2051	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
30	1	29-30	2052	1	0.0011	0.2757	0.2429	0.003	0.005	0.0002	0.01
Total Increased Cancer Risk								0.78	1.172	0.061	**2.01**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0002	0.01	0.01

* Third trimester of pregnancy

CT-EMFAC2017 Emissions Factors for San Mateo County 2025

File Name: Cumul Roads 2025 - San Mateo (SF) - 2025 - Annual.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 2/3/2022 11:00
Area: San Mateo (SF)
Analysis Year: 2025
Season: Annual

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.017	0.498	0.502
Truck 2	0.014	0.87	0.112
Non-Truck	0.969	0.017	0.953

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correction: CARB P = 60 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph
PM2.5	0.008224	0.005299	0.003582	0.002551	0.001922	0.001533	0.001296	0.00116
TOG	0.217244	0.142178	0.095962	0.0682	0.051713	0.041378	0.034786	0.030699
Diesel PM	0.000567	0.000476	0.000377	0.000305	0.000261	0.000239	0.000232	0.000238

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.112044

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002045

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.016812

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.01496

END

Callan Boulevard Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	43.7	3.4	35	13,950	11,526	124,061	1.748E-09	1.289E-09	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00023			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and DPM Emissions - DPM_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.77%	526	1.82E-05	9	6.75%	941	3.26E-05	17	6.42%	895	3.10E-05
2	3.11%	435	1.51E-05	10	8.22%	1147	3.98E-05	18	3.96%	552	1.91E-05
3	2.46%	343	1.19E-05	11	6.25%	873	3.02E-05	19	2.32%	324	1.12E-05
4	0.98%	137	4.76E-06	12	7.57%	1055	3.66E-05	20	1.17%	164	5.67E-06
5	0.98%	137	4.76E-06	13	7.07%	987	3.42E-05	21	2.79%	389	1.35E-05
6	2.13%	297	1.03E-05	14	6.58%	918	3.18E-05	22	4.92%	686	2.38E-05
7	4.59%	640	2.22E-05	15	6.09%	850	2.95E-05	23	3.44%	480	1.66E-05
8	3.30%	461	1.60E-05	16	4.29%	598	2.07E-05	24	0.82%	114	3.96E-06
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM 1
Year = **2025**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	9.765E-09	7.200E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001296			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM25_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	3.02E-05	9	7.12%	993	1.92E-04	17	7.43%	1036	2.01E-04
2	0.41%	57	1.11E-05	10	4.38%	611	1.18E-04	18	8.23%	1148	2.22E-04
3	0.37%	52	1.01E-05	11	4.65%	648	1.26E-04	19	5.73%	799	1.55E-04
4	0.17%	24	4.70E-06	12	5.89%	821	1.59E-04	20	4.30%	600	1.16E-04
5	0.46%	64	1.24E-05	13	6.17%	861	1.67E-04	21	3.26%	454	8.80E-05
6	0.85%	118	2.28E-05	14	6.05%	844	1.63E-04	22	3.31%	462	8.95E-05
7	3.73%	521	1.01E-04	15	7.06%	985	1.91E-04	23	2.49%	347	6.71E-05
8	7.76%	1083	2.10E-04	16	7.18%	1002	1.94E-04	24	1.87%	261	5.06E-05
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	2.621E-07	1.933E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.03479			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	8.11E-04	9	7.12%	993	5.16E-03	17	7.43%	1036	5.39E-03
2	0.41%	57	2.97E-04	10	4.38%	611	3.17E-03	18	8.23%	1148	5.97E-03
3	0.37%	52	2.70E-04	11	4.65%	648	3.37E-03	19	5.73%	799	4.15E-03
4	0.17%	24	1.26E-04	12	5.89%	821	4.27E-03	20	4.30%	600	3.12E-03
5	0.46%	64	3.33E-04	13	6.17%	861	4.48E-03	21	3.26%	454	2.36E-03
6	0.85%	118	6.13E-04	14	6.05%	844	4.39E-03	22	3.31%	462	2.40E-03
7	3.73%	521	2.71E-03	15	7.06%	985	5.12E-03	23	2.49%	347	1.80E-03
8	7.76%	1083	5.63E-03	16	7.18%	1002	5.21E-03	24	1.87%	261	1.36E-03
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	2.394E-07	1.765E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.11204			
Emissions per Vehicle per Mile (g/VMT)	0.03177			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	7.41E-04	9	7.12%	993	4.72E-03	17	7.43%	1036	4.92E-03
2	0.41%	57	2.72E-04	10	4.38%	611	2.90E-03	18	8.23%	1148	5.45E-03
3	0.37%	52	2.47E-04	11	4.65%	648	3.08E-03	19	5.73%	799	3.79E-03
4	0.17%	24	1.15E-04	12	5.89%	821	3.90E-03	20	4.30%	600	2.85E-03
5	0.46%	64	3.05E-04	13	6.17%	861	4.09E-03	21	3.26%	454	2.16E-03
6	0.85%	118	5.60E-04	14	6.05%	844	4.01E-03	22	3.31%	462	2.19E-03
7	3.73%	521	2.47E-03	15	7.06%	985	4.67E-03	23	2.49%	347	1.65E-03
8	7.76%	1083	5.14E-03	16	7.18%	1002	4.75E-03	24	1.87%	261	1.24E-03
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Callan Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_CAL	Callan Blvd	NB-SB	2	865.6	0.54	13.3	44	1.3	35	13,950	11,526	124,061	2.548E-07	1.879E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01496			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03382			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	156	7.88E-04	9	7.12%	993	5.02E-03	17	7.43%	1036	5.24E-03
2	0.41%	57	2.89E-04	10	4.38%	611	3.09E-03	18	8.23%	1148	5.80E-03
3	0.37%	52	2.63E-04	11	4.65%	648	3.28E-03	19	5.73%	799	4.04E-03
4	0.17%	24	1.23E-04	12	5.89%	821	4.15E-03	20	4.30%	600	3.03E-03
5	0.46%	64	3.24E-04	13	6.17%	861	4.35E-03	21	3.26%	454	2.30E-03
6	0.85%	118	5.96E-04	14	6.05%	844	4.26E-03	22	3.31%	462	2.34E-03
7	3.73%	521	2.63E-03	15	7.06%	985	4.98E-03	23	2.49%	347	1.75E-03
8	7.76%	1083	5.47E-03	16	7.18%	1002	5.06E-03	24	1.87%	261	1.32E-03
								Total		13,950	

Serramonte Del Rey, Daly City, CA - Callan Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st & 2nd Levels of Residential Receptors
- 1.5m (1st Fl) & 4.5m (2nd Fl) receptor heights

Emission Year	2025
Receptor Information	Maximum On-Site Receptor
Number of Receptors	541
Receptor Height	1st & 2nd Level of Residential Receptors
Receptor Distances	7 meter grid spacing

Meteorological Conditions	
BAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2010, 2012, 2013	0.0002	0.0275	0.0251	1st Level of Res Receps
2010, 2012, 2013	0.0001	0.0177	0.0161	2nd Level of Res Receps

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2010, 2012, 2013	0.0278	0.0267	0.0010	1st Level of Res Receps
2010, 2012, 2013	0.0178	0.0172	0.0007	2nd Level of Res Receps

Serramonte Del Rey, Daly City, CA - Callan Blvd Traffic Cancer Risk & PM2.5 Impacts at On-Site Residential Receptors - 1.5 meter (1st Fl) receptor heights 30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2026	10	0.0002	0.0275	0.0251	0.002	0.002	0.0001	0.00
1	1	0 - 1	2026	10	0.0002	0.0275	0.0251	0.025	0.026	0.0014	0.05
2	1	1 - 2	2027	10	0.0002	0.0275	0.0251	0.025	0.026	0.0014	0.05
3	1	2 - 3	2028	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
4	1	3 - 4	2029	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
5	1	4 - 5	2030	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
6	1	5 - 6	2031	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
7	1	6 - 7	2032	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
8	1	7 - 8	2033	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
9	1	8 - 9	2034	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
10	1	9 - 10	2035	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
11	1	10 - 11	2036	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
12	1	11 - 12	2037	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
13	1	12 - 13	2038	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
14	1	13 - 14	2039	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
15	1	14 - 15	2040	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
16	1	15 - 16	2041	3	0.0002	0.0275	0.0251	0.004	0.004	0.0002	0.01
17	1	16-17	2042	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0002	0.0275	0.0251	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.11	0.117	0.006	**0.23**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.000	0.03	0.03

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Callan Blvd Traffic Cancer Risk & PM2.5 Impacts at On-Site Residential Receptors - 4.5 meter (2nd Fl) receptor heights 30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0001	0.0177	0.0161	0.002	0.001	0.0001	0.00
1	1	0 - 1	2026	10	0.0001	0.0177	0.0161	0.020	0.017	0.0009	0.04
2	1	1 - 2	2027	10	0.0001	0.0177	0.0161	0.020	0.017	0.0009	0.04
3	1	2 - 3	2028	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
4	1	3 - 4	2029	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
5	1	4 - 5	2030	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
6	1	5 - 6	2031	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
7	1	6 - 7	2032	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
8	1	7 - 8	2033	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
9	1	8 - 9	2034	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
10	1	9 - 10	2035	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
11	1	10 - 11	2036	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
12	1	11 - 12	2037	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
13	1	12 - 13	2038	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
14	1	13 - 14	2039	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
15	1	14 - 15	2040	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
16	1	15 - 16	2041	3	0.0001	0.0177	0.0161	0.003	0.003	0.0001	0.01
17	1	16-17	2042	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0001	0.0177	0.0161	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.09	0.075	0.004	**0.17**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0000	0.02	0.02

* Third trimester of pregnancy

Hickey Boulevard Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_HIC	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	67.7	3.4	35	17,950	7,668	82,541	1.452E-09	1.070E-09	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00023			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and DPM Emissions - DPM_HIC

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.77%	677	1.01E-05	9	6.75%	1211	1.80E-05	17	6.42%	1152	1.71E-05
2	3.11%	559	8.32E-06	10	8.22%	1476	2.20E-05	18	3.96%	711	1.06E-05
3	2.46%	441	6.57E-06	11	6.25%	1123	1.67E-05	19	2.32%	416	6.20E-06
4	0.98%	177	2.63E-06	12	7.57%	1358	2.02E-05	20	1.17%	211	3.13E-06
5	0.98%	177	2.63E-06	13	7.07%	1270	1.89E-05	21	2.79%	500	7.45E-06
6	2.13%	383	5.69E-06	14	6.58%	1182	1.76E-05	22	4.92%	883	1.31E-05
7	4.59%	824	1.23E-05	15	6.09%	1093	1.63E-05	23	3.44%	618	9.20E-06
8	3.30%	593	8.83E-06	16	4.29%	770	1.15E-05	24	0.82%	147	2.19E-06
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM 1
Year = **2025**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	8.110E-09	5.979E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001296			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM25_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	1.67E-05	9	7.12%	1278	1.06E-04	17	7.43%	1333	1.11E-04
2	0.41%	74	6.12E-06	10	4.38%	786	6.54E-05	18	8.23%	1478	1.23E-04
3	0.37%	67	5.57E-06	11	4.65%	834	6.94E-05	19	5.73%	1028	8.55E-05
4	0.17%	31	2.60E-06	12	5.89%	1057	8.79E-05	20	4.30%	773	6.42E-05
5	0.46%	83	6.86E-06	13	6.17%	1108	9.21E-05	21	3.26%	585	4.86E-05
6	0.85%	152	1.26E-05	14	6.05%	1086	9.03E-05	22	3.31%	595	4.95E-05
7	3.73%	670	5.57E-05	15	7.06%	1267	1.05E-04	23	2.49%	446	3.71E-05
8	7.76%	1394	1.16E-04	16	7.18%	1289	1.07E-04	24	1.87%	336	2.79E-05
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	2.177E-07	1.605E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.03479			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	4.48E-04	9	7.12%	1278	2.85E-03	17	7.43%	1333	2.98E-03
2	0.41%	74	1.64E-04	10	4.38%	786	1.75E-03	18	8.23%	1478	3.30E-03
3	0.37%	67	1.49E-04	11	4.65%	834	1.86E-03	19	5.73%	1028	2.30E-03
4	0.17%	31	6.97E-05	12	5.89%	1057	2.36E-03	20	4.30%	773	1.72E-03
5	0.46%	83	1.84E-04	13	6.17%	1108	2.47E-03	21	3.26%	585	1.30E-03
6	0.85%	152	3.39E-04	14	6.05%	1086	2.42E-03	22	3.31%	595	1.33E-03
7	3.73%	670	1.50E-03	15	7.06%	1267	2.83E-03	23	2.49%	446	9.96E-04
8	7.76%	1394	3.11E-03	16	7.18%	1289	2.88E-03	24	1.87%	336	7.50E-04
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	1.988E-07	1.466E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.11204			
Emissions per Vehicle per Mile (g/VMT)	0.03177			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	4.09E-04	9	7.12%	1278	2.61E-03	17	7.43%	1333	2.72E-03
2	0.41%	74	1.50E-04	10	4.38%	786	1.60E-03	18	8.23%	1478	3.01E-03
3	0.37%	67	1.36E-04	11	4.65%	834	1.70E-03	19	5.73%	1028	2.10E-03
4	0.17%	31	6.37E-05	12	5.89%	1057	2.15E-03	20	4.30%	773	1.58E-03
5	0.46%	83	1.68E-04	13	6.17%	1108	2.26E-03	21	3.26%	585	1.19E-03
6	0.85%	152	3.09E-04	14	6.05%	1086	2.21E-03	22	3.31%	595	1.21E-03
7	3.73%	670	1.37E-03	15	7.06%	1267	2.58E-03	23	2.49%	446	9.10E-04
8	7.76%	1394	2.84E-03	16	7.18%	1289	2.63E-03	24	1.87%	336	6.85E-04
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Hickey Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2025**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_CAL	Hickey Blvd	EB-WB	4	371.7	0.23	20.6	68	1.3	35	17,950	7,668	82,541	2.116E-07	1.560E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01496			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03382			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_CAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	201	4.36E-04	9	7.12%	1278	2.77E-03	17	7.43%	1333	2.89E-03
2	0.41%	74	1.60E-04	10	4.38%	786	1.71E-03	18	8.23%	1478	3.21E-03
3	0.37%	67	1.45E-04	11	4.65%	834	1.81E-03	19	5.73%	1028	2.23E-03
4	0.17%	31	6.78E-05	12	5.89%	1057	2.29E-03	20	4.30%	773	1.68E-03
5	0.46%	83	1.79E-04	13	6.17%	1108	2.40E-03	21	3.26%	585	1.27E-03
6	0.85%	152	3.29E-04	14	6.05%	1086	2.36E-03	22	3.31%	595	1.29E-03
7	3.73%	670	1.45E-03	15	7.06%	1267	2.75E-03	23	2.49%	446	9.68E-04
8	7.76%	1394	3.02E-03	16	7.18%	1289	2.80E-03	24	1.87%	336	7.29E-04
								Total		17,950	

Serramonte Del Rey, Daly City, CA - Hickey Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st & 2nd Levels of Residential Receptors
- 1.5m (1st Fl) & 4.5m (2nd Fl) receptor heights

Emission Year	2025
Receptor Information	Maximum On-Site Receptor
Number of Receptors	541
Receptor Height	1st & 2nd Level of Residential Receptors
Receptor Distances	7 meter grid spacing
Meteorological Conditions	
BAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2010, 2012, 2013	0.0001	0.0063	0.0057	1st Level of Res Receps
2010, 2012, 2013	0.0000	0.0056	0.0051	2nd Level of Res Receps

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2010, 2012, 2013	0.0063	0.0061	0.0002	1st Level of Res Receps
2010, 2012, 2013	0.0057	0.0055	0.0002	2nd Level of Res Receps

Serramonte Del Rey, Daly City, CA - Hickey Blvd Traffic Cancer Risk & PM2.5
Impacts at On-Site Residential Receptors - 1.5 meter (1st Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0001	0.0063	0.0057	0.001	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0001	0.0063	0.0057	0.008	0.006	0.0003	0.01
2	1	1 - 2	2027	10	0.0001	0.0063	0.0057	0.008	0.006	0.0003	0.01
3	1	2 - 3	2028	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
4	1	3 - 4	2029	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
5	1	4 - 5	2030	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
6	1	5 - 6	2031	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
7	1	6 - 7	2032	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
8	1	7 - 8	2033	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
9	1	8 - 9	2034	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
10	1	9 - 10	2035	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
11	1	10 - 11	2036	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
12	1	11 - 12	2037	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
13	1	12 - 13	2038	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
14	1	13 - 14	2039	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
15	1	14 - 15	2040	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
16	1	15 - 16	2041	3	0.0001	0.0063	0.0057	0.001	0.001	0.0000	0.00
17	1	16-17	2042	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0001	0.0063	0.0057	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.04	0.027	0.001	**0.07**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.000	0.01	0.01

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Hickey Blvd Traffic Cancer Risk & PM2.5 Impacts at On-Site Residential Receptors - 4.5 meter (2nd Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0000	0.0056	0.0051	0.001	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0000	0.0056	0.0051	0.007	0.005	0.0003	0.01
2	1	1 - 2	2027	10	0.0000	0.0056	0.0051	0.007	0.005	0.0003	0.01
3	1	2 - 3	2028	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
4	1	3 - 4	2029	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
5	1	4 - 5	2030	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
6	1	5 - 6	2031	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
7	1	6 - 7	2032	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
8	1	7 - 8	2033	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
9	1	8 - 9	2034	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
10	1	9 - 10	2035	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
11	1	10 - 11	2036	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
12	1	11 - 12	2037	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
13	1	12 - 13	2038	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
14	1	13 - 14	2039	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
15	1	14 - 15	2040	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
16	1	15 - 16	2041	3	0.0000	0.0056	0.0051	0.001	0.001	0.0000	0.00
17	1	16-17	2042	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0056	0.0051	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.03	0.024	0.001	**0.05**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0000	0.01	0.01

* Third trimester of pregnancy

Serramonte Boulevard Traffic Emissions and Health Risk Calculations

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	67.7	3.4	25	11,565	20,104	216,401	1.052E-09	7.758E-10	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.00026			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and DPM Emissions - DPM_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.77%	436	1.91E-05	9	6.75%	780	3.43E-05	17	6.42%	742	3.26E-05
2	3.11%	360	1.58E-05	10	8.22%	951	4.17E-05	18	3.96%	458	2.01E-05
3	2.46%	284	1.25E-05	11	6.25%	723	3.18E-05	19	2.32%	268	1.18E-05
4	0.98%	114	4.99E-06	12	7.57%	875	3.84E-05	20	1.17%	136	5.95E-06
5	0.98%	114	4.99E-06	13	7.07%	818	3.59E-05	21	2.79%	322	1.41E-05
6	2.13%	246	1.08E-05	14	6.58%	761	3.34E-05	22	4.92%	569	2.50E-05
7	4.59%	531	2.33E-05	15	6.09%	704	3.09E-05	23	3.44%	398	1.75E-05
8	3.30%	382	1.68E-05	16	4.29%	496	2.18E-05	24	0.82%	95	4.16E-06
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM 1
Year = **2025**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	7.749E-09	5.713E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.001922			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM25_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	129	4.18E-05	9	7.12%	824	2.66E-04	17	7.43%	859	2.78E-04
2	0.41%	47	1.53E-05	10	4.38%	506	1.64E-04	18	8.23%	952	3.08E-04
3	0.37%	43	1.39E-05	11	4.65%	538	1.74E-04	19	5.73%	663	2.14E-04
4	0.17%	20	6.51E-06	12	5.89%	681	2.20E-04	20	4.30%	498	1.61E-04
5	0.46%	53	1.72E-05	13	6.17%	714	2.31E-04	21	3.26%	377	1.22E-04
6	0.85%	98	3.16E-05	14	6.05%	700	2.26E-04	22	3.31%	383	1.24E-04
7	3.73%	432	1.40E-04	15	7.06%	816	2.64E-04	23	2.49%	287	9.29E-05
8	7.76%	898	2.90E-04	16	7.18%	830	2.68E-04	24	1.87%	217	7.00E-05
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	2.085E-07	1.537E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.05171			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	129	1.13E-03	9	7.12%	824	7.16E-03	17	7.43%	859	7.47E-03
2	0.41%	47	4.13E-04	10	4.38%	506	4.41E-03	18	8.23%	952	8.28E-03
3	0.37%	43	3.75E-04	11	4.65%	538	4.68E-03	19	5.73%	663	5.76E-03
4	0.17%	20	1.75E-04	12	5.89%	681	5.92E-03	20	4.30%	498	4.33E-03
5	0.46%	53	4.63E-04	13	6.17%	714	6.21E-03	21	3.26%	377	3.28E-03
6	0.85%	98	8.50E-04	14	6.05%	700	6.08E-03	22	3.31%	383	3.33E-03
7	3.73%	432	3.76E-03	15	7.06%	816	7.10E-03	23	2.49%	287	2.50E-03
8	7.76%	898	7.81E-03	16	7.18%	830	7.22E-03	24	1.87%	217	1.88E-03
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2025

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	1.793E-07	1.322E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle per Hour (g/hour)	1.11204			
Emissions per Vehicle per Mile (g/VMT)	0.04448			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	129	9.68E-04	9	7.12%	824	6.16E-03	17	7.43%	859	6.43E-03
2	0.41%	47	3.55E-04	10	4.38%	506	3.79E-03	18	8.23%	952	7.12E-03
3	0.37%	43	3.23E-04	11	4.65%	538	4.02E-03	19	5.73%	663	4.96E-03
4	0.17%	20	1.51E-04	12	5.89%	681	5.09E-03	20	4.30%	498	3.72E-03
5	0.46%	53	3.98E-04	13	6.17%	714	5.34E-03	21	3.26%	377	2.82E-03
6	0.85%	98	7.31E-04	14	6.05%	700	5.23E-03	22	3.31%	383	2.87E-03
7	3.73%	432	3.23E-03	15	7.06%	816	6.11E-03	23	2.49%	287	2.15E-03
8	7.76%	898	6.72E-03	16	7.18%	830	6.21E-03	24	1.87%	217	1.62E-03
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Offsite MEIs Roadway Modeling
Cumulative Operation - Serramonte Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2025**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_SER	Serramonte Blvd	EB-WB	4	974.5	0.61	20.6	68	1.3	25	11,565	20,104	216,401	1.363E-07	1.005E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01496			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03382			

Emisson Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_SER

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	129	7.36E-04	9	7.12%	824	4.68E-03	17	7.43%	859	4.89E-03
2	0.41%	47	2.70E-04	10	4.38%	506	2.88E-03	18	8.23%	952	5.42E-03
3	0.37%	43	2.45E-04	11	4.65%	538	3.06E-03	19	5.73%	663	3.77E-03
4	0.17%	20	1.14E-04	12	5.89%	681	3.87E-03	20	4.30%	498	2.83E-03
5	0.46%	53	3.03E-04	13	6.17%	714	4.06E-03	21	3.26%	377	2.14E-03
6	0.85%	98	5.56E-04	14	6.05%	700	3.98E-03	22	3.31%	383	2.18E-03
7	3.73%	432	2.46E-03	15	7.06%	816	4.64E-03	23	2.49%	287	1.64E-03
8	7.76%	898	5.11E-03	16	7.18%	830	4.72E-03	24	1.87%	217	1.23E-03
								Total		11,565	

Serramonte Del Rey, Daly City, CA - Serramonte Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st & 2nd Levels of Residential Receptors
- 1.5m (1st Fl) & 4.5m (2nd Fl) receptor heights

Emission Year	2025
Receptor Information	Maximum On-Site Receptor
Number of Receptors	541
Receptor Height	1st & 2nd Level of Residential Receptors
Receptor Distances	7 meter grid spacing

Meteorological Conditions

BAQMD Fort Funston Met Data	2010, 2012, 2013
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2010, 2012, 2013	0.0006	0.1467	0.1262	1st Level of Res Receps
2010, 2012, 2013	0.0005	0.1286	0.1106	2nd Level of Res Receps

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2010, 2012, 2013	0.1014	0.0959	0.0055	1st Level of Res Receps
2010, 2012, 2013	0.0888	0.0840	0.0048	2nd Level of Res Receps

Serramonte Del Rey, Daly City, CA - Serramonte Blvd Traffic Cancer Risk & PM2.5
Impacts at On-Site Residential Receptors - 1.5 meter (1st Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2026	10	0.0006	0.1467	0.1262	0.008	0.011	0.0006	0.02
1	1	0 - 1	2026	10	0.0006	0.1467	0.1262	0.094	0.138	0.0070	0.24
2	1	1 - 2	2027	10	0.0006	0.1467	0.1262	0.094	0.138	0.0070	0.24
3	1	2 - 3	2028	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
4	1	3 - 4	2029	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
5	1	4 - 5	2030	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
6	1	5 - 6	2031	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
7	1	6 - 7	2032	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
8	1	7 - 8	2033	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
9	1	8 - 9	2034	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
10	1	9 - 10	2035	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
11	1	10 - 11	2036	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
12	1	11 - 12	2037	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
13	1	12 - 13	2038	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
14	1	13 - 14	2039	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
15	1	14 - 15	2040	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
16	1	15 - 16	2041	3	0.0006	0.1467	0.1262	0.015	0.022	0.0011	0.04
17	1	16-17	2042	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
18	1	17-18	2043	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
19	1	18-19	2044	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
20	1	19-20	2045	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
21	1	20-21	2046	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
22	1	21-22	2047	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
23	1	22-23	2048	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
24	1	23-24	2049	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
25	1	24-25	2050	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
26	1	25-26	2051	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
27	1	26-27	2052	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
28	1	27-28	2053	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
29	1	28-29	2054	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
30	1	29-30	2055	1	0.0006	0.1467	0.1262	0.002	0.002	0.0001	0.00
Total Increased Cancer Risk								0.42	0.623	0.032	**1.08**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.000	0.10	0.10

* Third trimester of pregnancy

Serramonte Del Rey, Daly City, CA - Serramonte Blvd Traffic Cancer Risk & PM2.5
Impacts at On-Site Residential Receptors - 4.5 meter (2nd Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2026	10	0.0005	0.1286	0.1106	0.007	0.010	0.0005	0.02
1	1	0 - 1	2026	10	0.0005	0.1286	0.1106	0.089	0.121	0.0061	0.22
2	1	1 - 2	2027	10	0.0005	0.1286	0.1106	0.089	0.121	0.0061	0.22
3	1	2 - 3	2028	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
4	1	3 - 4	2029	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
5	1	4 - 5	2030	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
6	1	5 - 6	2031	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
7	1	6 - 7	2032	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
8	1	7 - 8	2033	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
9	1	8 - 9	2034	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
10	1	9 - 10	2035	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
11	1	10 - 11	2036	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
12	1	11 - 12	2037	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
13	1	12 - 13	2038	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
14	1	13 - 14	2039	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
15	1	14 - 15	2040	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
16	1	15 - 16	2041	3	0.0005	0.1286	0.1106	0.014	0.019	0.0010	0.03
17	1	16-17	2042	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
18	1	17-18	2043	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
19	1	18-19	2044	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
20	1	19-20	2045	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
21	1	20-21	2046	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
22	1	21-22	2047	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
23	1	22-23	2048	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
24	1	23-24	2049	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
25	1	24-25	2050	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
26	1	25-26	2051	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
27	1	26-27	2052	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
28	1	27-28	2053	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
29	1	28-29	2054	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
30	1	29-30	2055	1	0.0005	0.1286	0.1106	0.002	0.002	0.0001	0.00
Total Increased Cancer Risk								0.40	0.546	0.028	**0.98**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0001	0.08	0.09

* Third trimester of pregnancy

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**12/14/2021**
Contact Name	Casey Divine
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	cdivine@illingworthrodkin.com
Project Name	Serramonte Del Rey
Address	699 Serramonte Blvd
City	Daly City
County	San Mateo
Type (residential, commercial, mixed use, industrial, etc.)	Mixed-Use
Project Size (# of units or building square feet)	1,113du, 14-ksf retail
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A ncomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in Table B lue section only.

6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Matthew Hanson at 415-749-8733, or mhanson@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments
325	111517	KNK Petroleum Inc dba Triton Gas	4698 Callan Blvd	29.57	0.13	-		Gas Dispensing Facility		2018 Dataset

Project MEIs

Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
0.09	2.61	0.01	#VALUE!

Project Site

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
300	111517	0.10	3.09	0.01	#VALUE!

Footnotes:

1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010.
    Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

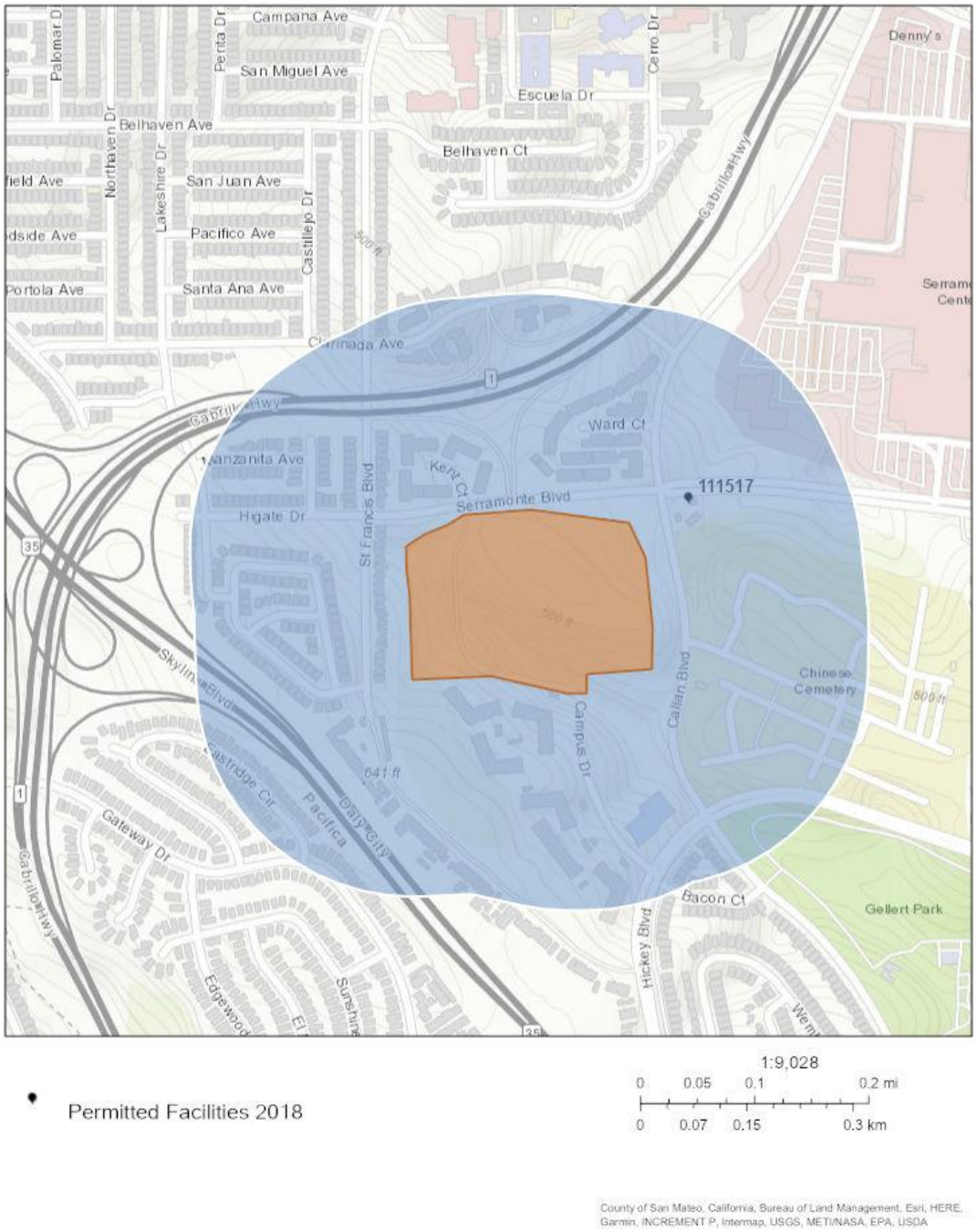
Date last updated:
03/13/2018

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 7,482,422.67 ft²

Dec 14 2021 16:02:19 Pacific Standard Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Facilities 2018	1	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	111517	KNK Petroleum Inc dba Triton Gas	4698 Callan Blvd	Daly City	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	94015	San Mateo	29.570	0.130	0.000	Gas Dispensing Facility	1

Note: The estimated risk and hazard impacts from these sources would be expected to be substantially lower when site specific Health Risk Screening Assessments are conducted.

The screening level map is not recommended for evaluating sensitive land uses such as schools, senior centers, day cares, and health facilities.

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