AIR QUALITY AND GREENHOUSE GAS ASSESSMENT

APPENDIX B

to the
Alexandria Center for Life Science Project Draft EIR

ALEXANDRIA CENTER FOR LIFE SCIENCE AIR QUALITY & GREENHOUSE GAS ASSESSMENT

San Carlos, California

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Introduction

The purpose of this report is to address air quality, health risk, and greenhouse gas (GHG) impacts associated with the proposed six life science office buildings, two parking garages, a surface parking lot, and an amenity building located at 960 Industrial Road and 915 Commercial Street in San Carlos, CA. The air quality impacts and GHG emissions from this project would be associated with construction of the new buildings, trips generated by the operation of the project, and operation of emergency generators. Air pollutant and GHG emissions associated with construction and operation of the project were predicted using appropriate computer models. In addition, the potential project health risk impacts (including 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] BAAQMD recommends using a 1,000-foot screening radius around the project site for purposes of identifying health risk from existing sources of TACs.

Project Description

The approximately 24.7-acre project site is currently occupied by various businesses and associated parking for each business. The project proposes to demolish the existing buildings to construct six life science office buildings totaling approximately 1,734,532 square-feet (sf), including an amenity building, two (2) parking garages totaling 3,373 parking spaces, and a surface parking lot with 144 parking spaces. The development of the site is proposed to occur in no less than three phases. Phase 1 could include construction of two office buildings and one parking garage. Phase 2 could include construction of two more office buildings, the amenity building, and the second parking garage. Phase 2 will also include construction of a 4,500-sf retail space. Phase 3 could include the construction of the final two office buildings and the surface parking lot, completing construction of the entire project site. Phase 1 construction is analyzed as if it began in October 2021 and was completed by December 2023. Phase 2 construction is assumed in this assessment to begin in January 2024 and be completed by July 2026. Phase 3 construction is assumed in this assessment to begin in August 2026 and be completed by February 2029. The fact that construction would begin at least three years later than assumed for analysis purposes makes the analysis conservative. Construction equipment in 2024 and beyond likely would emit fewer pollutants than assumed in the analysis because of increasingly stringent state and federal regulations controlling the allowed emissions of equipment used in construction. Similarly, vehicle emissions associated with operations also would decrease due to increasingly strict regulations that will be phased in over the next several years.

Setting

The project is located in San Mateo County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

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

Air Pollutants of Concern

High ozone concentrations are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_X). These precursor pollutants react under certain meteorological conditions to form ozone concentrations. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ambient ozone concentrations. The highest ozone concentrations in the Bay Area occur in the eastern and southern inland valleys downwind of air pollutant sources. High ozone concentrations aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant in the air basin. 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 concentrations 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

TACs are a broad class of compounds known to cause morbidity or mortality, often because they cause cancer. 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 California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects from diesel exhaust exposure 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. Health risks from TACs are estimated using the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines, which were published in February of 2015 and incorporated into BAAQMD's CEQA guidance.

See *Attachment 1* for a detailed description of the health risk modeling methodology used in this assessment.

Sensitive Receptors

Certain groups of people are 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. The closest sensitive receptors to the site are infants and children that may be living in the multi-family residences approximately 300 feet to the southwest opposite El Camino Real. Additional sensitive receptors can be found at further distances to the southwest of the project site and to the northwest. This project could introduce new sensitive receptors if the proposed amenity building contains a daycare. Although the daycare is an optional use, the analysis assumes the project includes a daycare to ensure the maximum potential impacts are analyzed and disclosed.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide ambient air quality standards (NAAQS) and emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards.

In the past twenty years, the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_X and particulate matter ($PM_{2.5}$) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_X emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[2]

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The current standards limit the amount of sulfur allowed in diesel fuel to 15 parts per million by weight (ppmw). Ultra-low sulfur diesel (ULSD), as it is referred to, is required for use by all vehicles in the U.S.

All of the above federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

[2] USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

State Regulations

The California Air Resources Board (CARB) has set statewide ambient air quality standards (CAAQS) and emission standards for on-road and off-road mobile sources that are more stringent than those adopted by the EPA. 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 regulation to reduce emissions of DPM and NO_X from on-road heavy-duty diesel fueled vehicles.[3] 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. Advanced Clean Cars and Advanced Clean Cars II (ACC II) that will require new all new cars and light trucks sold in California will be zero-emission vehicles by 2035.

CARB has also adopted and implemented regulations to reduce DPM and NO_X 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 DPM and NO_X 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 the Federal off-road equipment engine emission limits for new vehicles, has significantly reduce emissions of DPM and NO_X.

To address the issue of diesel emissions in the state, CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*.[4] In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road emission standards for new diesel engines, as well as adoption of regulations for ULSD fuel in California.

Bay Area Air Quality Management District (BAAQMD)

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the National Ambient Air Quality Standards and California Ambient Air Quality Standards. The District also has permit authority over most types of stationary equipment utilized for the proposed project. The BAAQMD is responsible for permitting and inspection of stationary sources;

[3] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[4] California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

BAAQMD's 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. Overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, 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 BAAQMD has identified six communities as impacted: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco. The project site is not within a designated CARE area and not within a BAAQMD overburdened area as identified by CalEnviroScreen.

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. *Attachment 1* includes detailed health risk modeling methodology.

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 the project include:

[5] See BAAQMD: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program , accessed 2/18/2021.
[6] See BAAQMD: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofoverburdenedcommunities-pdf.pdf?la=en , accessed 11/23/2021.
[7] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

- Regulation 2 – Permits
  - Rule 2-1: General Requirements
  - Rule 2-2: New Source Review
- Regulation 6 – Particulate Matter and Visible Emissions
  - Rule 6-3: Wood-Burning Devices
- 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

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 emissions from the diesel-fueled generator engines.

Stationary Diesel Airborne Toxic Control Measure

The BAAQMD administers the CARB's Airborne Toxic Control Measure (ACTM) for Stationary Diesel engines (section 93115, title 17 CA Code of Regulations). The project's stationary sources will be new stationary emergency stationary emergency standby diesel engines larger than 50 hp. The NOx, ROG, and particulate limits vary based on maximum engine power. All engines are limited to PM emission rates of 0.15 g/hp-hour, regardless of size. This ACTM limits engine operation 50 hours per year for routine testing and maintenance.

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.

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.

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.

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 subject to the CARB ACTM that ranges from 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.

City of San Carlos 2030 General Plan

The San Carlos 2030 General Plan's Environmental Management Element includes policies and actions to reduce exposure of the City's sensitive population to exposure of air pollution, toxic air contaminants, and GHG emissions. The following policies and actions are applicable to the proposed project:

Policies

Policy EM-6.1: Support and comply with the BAAQMD, State and federal standards and policies that improve air quality in the Bay Area.

Policy EM-6.2: Support and encourage commercial uses to adopt environmentally friendly technologies and reduce the release of pollutants.

Policy EM-6.3: Support the reduction of emissions of particulates from wood burning appliances, construction activity, automobiles, trucks and other sources.

Policy EM-6.6: BAAQMD recommended measures to reduce PM_{10} and exhaust emissions associated with construction shall be applied to new development in San Carlos.

East Side Innovation District Vision Plan

The East Side Innovation District Vision Plan covers the East Side of San Carlos bounded by Holly Street, Brittan Avenue, Old County Road, and Highway 101. The Vision Plan is not a regulatory document but is intended to be used alongside the General Plan and Municipal Code to help guide transformation of the East Side with 10 Big Moves. The following goals are applicable to the proposed project:

Goals

Goal 1: Convert Industrial Road into a functional green boulevard that provides a distinct identity, creates a sense of place, and weaves nature into the District.

Goal 2: Provide a mix of accessible connected open spaces and non-vehicular connections in the District to serve existing and future District users and the greater San Carlos community.

Goal 3: Establish environmental and resilience best practice for the District to address flooding and environmental remediation, and increase the ecological value of the area with new connections to nature for the greater community to enjoy.

Goal 6: Incorporate a mix of community-serving uses in the District that provide daily amenities, create vibrant places, and strengthen the social fabric of San Carlos.

Goal 8: Promote safe and accessible walking and bike trips to, from, and within the District for all users, while balancing the freight circulation and loading needs of Industrial commercial uses.

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.

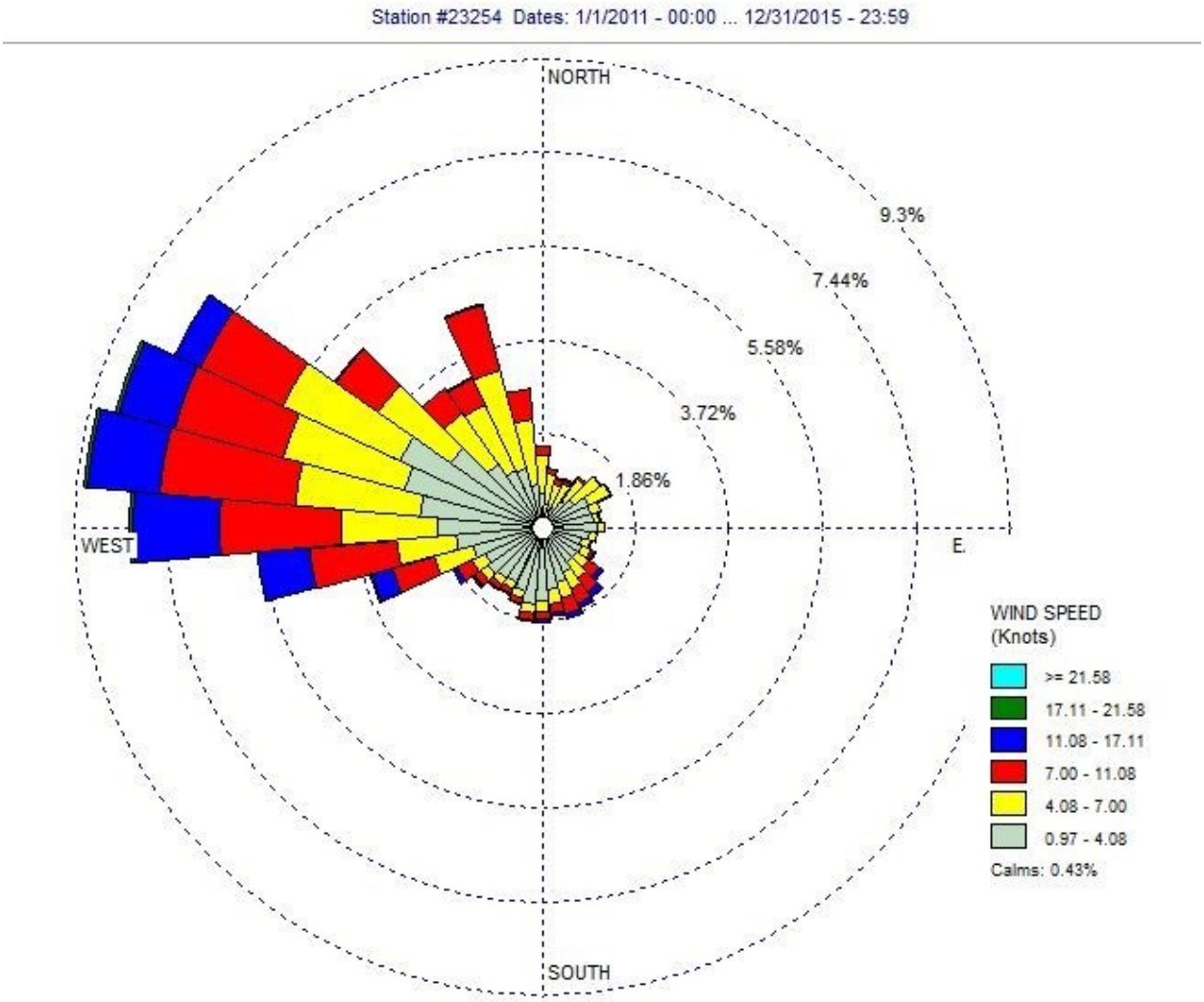
Climate and Meteorology

During the summer, mostly clear skies result in mild to warm daytime temperatures and cool nights along 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 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 1 describes the patterns and frequency of winds at the project site. Wind data were collected from 2011 through 2015.

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 peninsula, causing health standards to be exceeded further south. Santa Mateo County experiences many exceedances of the $PM_{2.5}$ and ozone standards 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 1. Windrose for San Carlos Airport



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 1 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 1. NAAQS, CAAQS, and San Francisco Bay Area Attainment Status

		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 that monitored O_3, CO, NO, NO_2, and $PM_{2.5}$ is in Redwood City, approximately 2 miles southeast of the project site. Note that this site, like most others in the Bay Area, does not monitor PM_{10}. The data shows that during the most recently available period of 2015 through 2019, the project area has exceeded the state and/or federal O_3 and $PM_{2.5}$ ambient air quality standards. Table 2 lists air quality trends in data collected for the 2015 through 2019 period 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 2 days annually in Redwood City and 3 to 15 days throughout the Bay Area. Measured 24-hour PM_{10} and $PM_{2.5}$ concentrations

are exceeded on 0 to 13 monitoring days in Redwood City and up to 18 days at any place in the Bay Area. Note that PM_{10} and $PM_{2.5}$ levels were influences by smoke from wildfires).

Table 2. Ambient Air Quality Concentrations for Redwood City from 2015-2019

Pollutant	Standard	2015	2016	2017	2018	2019
Ozone						
Max 1-hr concentration		86 ppb	75 ppb	115 ppb	67 ppb	83 ppb
No. days exceeded: CAAQS	90 ppb	0	0	2	0	0
Max 8-hr concentration		71 ppb	60 ppb	86 ppb	49 ppb	77 ppb
No. days exceeded: CAAQS	70 ppb	1	0	2	0	2
NAAQS	70 ppb	1	0	2	0	2
Carbon Monoxide						
Max 1-hr concentration		3.4 ppm	2.2 ppm	2.8 ppm	2.5 ppm	2.0 ppm
No. days exceeded: CAAQS	20 ppm	0	0	0	0	0
NAAQS	35 ppm	0	0	0	0	0
Max 8-hr concentration		1.6 ppm	1.0 ppm	1.48 ppm	1.7 ppm	1.1 ppm
No. days exceeded: CAAQS	9.0 ppm	0	0	0	0	0
NAAQS	9 ppm	0	0	0	0	0
PM_{10} - No measurements made						
$PM_{2.5}$						
Max 24-hr concentration		34.6µg/m^3	19.5µg/m^3	60.8 g/m^3	120.9µg/m^3	29.5 µg/m^3
No. days exceeded: NAAQS	35 µg/m^3	0	0	6	13	0
Annual Concentration		5.7 g/m^3	8.3 µg/m^3	9.1 µg/m^3	10.3µg/m^3	7.0µg/m^3
No. days exceeded: CAAQS	12 µg/m^3	-	-	-	-	-
NAAQS	12 µg/m^3	-	-	-	-	-
Nitrogen Dioxide						
Max 1-hr concentration		48 ppb	52 ppb	67 ppb	77 ppb	55 ppb
No. days exceeded: CAAQS	0.18 ppm	0	0	0	0	0
NAAQS	0.100 ppm	0	0	0	0	0
Annual Concentration		11 ppb	16 ppb	11 ppb	11 ppb	9 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

Significance Thresholds

The BAAQMD publishes guidelines for the CEQA analysis of air quality and greenhouse gas emissions. The purpose of BAAQMD's CEQA Guidelines is to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans in the San Francisco Bay Area Air Basin. The Guidelines include nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities. BAAQMD most recently updated the *CEQA Air Quality Guidelines* in 2022 to include the latest significance thresholds that were used in this analysis, which are summarized in Table 3. Project impacts are considered significant or cumulatively considerable contributors to significant cumulative impacts if they exceed these levels.

Table 3. 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	
Greenhouse Gas Emissions			
Land Use Projects – direct and indirect emissions	Include A OR B A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. The project will 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 that reflects the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory: Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2. OR B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).		

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. GHG = greenhouse gases.

This assessment uses the CalEEMod and EMFAC2021 models to predict construction and operational period emissions.

Ambient air quality monitoring data provided in Table 2 show CO concentrations at a fraction of the BAAQMD-recommended thresholds, which are designed to show compliance with the NAAQS and CAAQS for the air basin. BAAQMD does not recommend carbon monoxide modeling for projects that meet all of the following screening criteria:

- The project does not conflict with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans. The project's TDM plan has been designed to not conflict with congestion management programs.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. The project is predicted to generate 23,472 daily trips and a TDM plan designed for this project is expected to offset 20 percent of those trips to the project site. These trips would be spread out over several roadways during a day.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway). The project would include unenclosed parking spaces to allow for horizontal airflow through each floor. Given that the project traffic would be spread out over multiple roadways, and that the only other airflow restricting roadway feature near the project site is a single underpass on Brittan Avenue when it passes underneath Caltrain, this screening criteria is met.

A health risk assessment was prepared to address thresholds related to health risks and hazards.

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 O_3 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 O_3, $PM_{2.5}$ and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NOx), 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 on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2021 (EMFAC2021) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.[8] The CalEEMod model output along with construction inputs are included in *Attachment 2* and EMFAC2021 vehicle emissions modeling outputs are included in *Attachment 3*.

CalEEMod Modeling

Land Use Inputs

The proposed project land uses were entered into CalEEMod as described in Table 4.

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 scenario, including equipment list and schedule, were provided by the applicant for Phase 1. The applicant also provided other information such as hauling quantities. Asphalt and concrete quantities were estimated from project plans. Equipment activity for Phases 2 and 3 were based on projections of Phase 1 activity using the provided construction schedule for all phases.

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

Table 4. Summary of Project Land Use Inputs – By Construction Phase

Project Land Uses – Phase 1	Size	Units	Square Feet (sf)	Acreage
Office/Research & Development	557.51	1,000-sf	557,510	10.2
Unenclosed Parking with Elevator	1,450	Parking Space	499,350	
Publicly Accessible Open Space	2	Acre	87,120	
Project Land Uses – Phase 2*	**Size**	**Units**	**Square Feet (sf)**	**Acreage**
Office/Research & Development	489.79	1,000-sf	489,790	8.74
Amenity Building (could include a daycare)	9.44	1,000-sf	9,443	
Amenity Building (could include a community center, meeting space, or recreation) *	2.1	1,000-sf	2,100	
Unenclosed Parking with Elevator	1,779	Parking Space	504,487	
Retail	4.5	1,000-sf	4,500	
Project Land Uses – Phase 3	**Size**	**Units**	**Square Feet (sf)**	**Acreage**
Office/Research & Development	675.65	1,000-sf	676,651	6.1
Parking Lot	144	Parking Space	57,600	

Notes: The amenity building was modeled using trips from the transportation analysis and entered into CalEEMod as a daycare and a library use, which is conservative and would cover possible land uses. The indicated retail space was modeled as a convenience market and may or may not be included in the project (so it is conservative to include it in this analysis).

The CalEEMod construction information included the schedule for each phase. Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays was provided by the applicant. The construction schedule assumed that the earliest possible start date would be October 2021 for Phase 1 and would be built out over a period of approximately 27 months, or 565 construction workdays. The earliest year of full operation was assumed to be 2024. For Phase 2, the earliest possible start date would be January 2024 and would be built out over a period of approximately 31 months, or 675 construction workdays. The earliest year of full operation was assumed to be 2027. For Phase 3, the earliest possible start date would be August 2026 and would be built out over a period of approximately 31 months, or 675 construction workdays. The earliest full year of operation was assumed to be 2030.

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. Demolition was modeled to remove 104,229-sf and 127,839-sf building materials in construction Phases 2 and 3, respectively. Asphalt and cement quantities for construction and paving were estimated using Google Earth and the site plans provided by the applicant. 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 by assuming each truck could carry 8 tons per load. The number of cement deliveries were provided for the project and

converted to total one-way trips, assuming two trips per delivery. Asphalt trucks were assumed to carry 10 cubic yards per delivered load.

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. Therefore, 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. EMFAC2021 has not been updated to reflect ACC II. The vehicle mix for this study was based on CalEEMod default assumptions, 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 trips, including cement trucks, are comprised of large trucks (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 (soil import/export). Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On road emissions in San Mateo County for 2021 - 2029 were used in these calculations. Table 5a through 5c provides the traffic inputs that were combined with the EMFAC2021 emission database to compute vehicle emissions.

Table 5a. Construction Traffic Data Used for EMFAC2021 Model Runs – Phase 1

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.
Site Utilities	1,360	-	-	102,871-cy soil export. 24,714-cy soil import. CalEEMod default worker trips.
Grade Side	2,125	-	15,948	
Drill Displacement Piles	1,560	-	-	
Dewatering	12	-	-	
Shoring and Excavation	350	-	-	
Concrete/Rebar/Waterproofing	25,860	11,400	9,531	Est 4,765 cement round trips. CalEEMod default worker and vendor trips.
Structural Steel	58,185	25,650	-	
Concrete Decks	53,875	23,750	-	
Fireproofing	53,875	23,750	-	
Exterior Skin	14,190	-	-	Est 75 asphalt round trips. CalEEMod default worker trips.
Landscaping and Hardscape	2,080	-	151	
MEP	10,775	4,750	-	CalEEMod default worker and vendor trips.
Roofing	21,550	9,500	-	
Framing/Drywall	10,775	4,750	-	
Elevators	21,550	9,500	-	
Other Interior Finishes	4,300	-	-	CalEEMod default worker trips.
Startup & Commissioning	30	-	-	

Notes: [1] Based on 2021 - 2023 EMFAC2021 light-duty vehicle fleet mix for San Mateo County.
[2] Includes demolition and grading trips estimated by CalEEMod based on amount of material to be removed. Cement and asphalt trips estimated based on data provided by the applicant.

Table 5b. Construction Traffic Data Used for EMFAC2021 Model Runs – Phase 2

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.
Abatement	300	-	-	104,229-sf building demolition. 102,871-cy soil export. 24,714-cy soil import. CalEEMod default worker trips.
Demolition	1,650	-	474	
Site Utilities	1,360	-	-	
Grade Side	2,125	-	15,948	
Drill Displacement Piles	1,560	-	-	
Dewatering	12	-	-	
Shoring and Excavation	350	-	-	
Concrete/Rebar/Waterproofing	22,440	11,400	9,531	Est 4,765 cement round trips. CalEEMod default worker and vendor trips.
Structural Steel	50,490	25,650	-	
Concrete Decks	46,750	23,750	-	
Fireproofing	46,750	23,750	-	
Exterior Skin	12,375	-	-	Est 75 asphalt round trips. CalEEMod default worker trips.
Landscaping and Hardscape	2,080	-	151	
MEP	9,350	4,750	-	CalEEMod default worker and vendor trips.
Roofing	18,700	9,500	-	
Framing/Drywall	9,350	4,750	-	
Elevators	18,700	9,500	-	
Other Interior Finishes	3,750	-	-	CalEEMod default worker trips.
Startup & Commissioning	30	-	-	

Notes: [1] Based on 2024 - 2026 EMFAC2021 light-duty vehicle fleet mix for San Mateo County.
[2] Includes demolition and grading trips estimated by CalEEMod based on amount of material to be removed. Cement and asphalt trips estimated based on data provided by the applicant.

Table 5c. Construction Traffic Data Used for EMFAC2021 Model Runs – Phase 3

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.
Abatement	300	-	-	127,839-sf building demolition. 102,871-cy soil export. 24,714-cy soil import. CalEEMod default worker trips.
Demolition	1,650	-	1,526	
Site Utilities	1,360	-	-	
Grade Side	2,125	-	15,948	
Drill Displacement Piles	1,560	-	-	
Dewatering	12	-	-	
Shoring and Excavation	350	-	-	
Concrete/Rebar/Waterproofing	12,360	6,180	5,062	Est 2,531 cement round trips. CalEEMod default worker and vendor trips
Structural Steel	13,905	13,905	-	
Concrete Decks	25,750	12,875	-	
Fireproofing	25,750	12,875	-	
Exterior Skin	6,765	-	-	Est 72 asphalt round trips. CalEEMod default worker trips.
Landscaping and Hardscape	2,080	-	144	
MEP	5,150	2,575	-	CalEEMod default worker and vendor trips.
Roofing	10,300	5,150	-	
Framing/Drywall	5,150	2,575	-	
Elevators	10,300	5,150	-	
Other Interior Finishes	2,050	-	-	CalEEMod default worker trips.
Startup & Commissioning	30	-	-	

Notes: [1] Based on 2026 - 2029 EMFAC2021 light-duty vehicle fleet mix for San Mateo County.
[2] Includes demolition and grading trips estimated by CalEEMod based on amount of material to be removed. Cement and asphalt trips estimated based on data provided by the applicant.

Conclusion AIR-1.1

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active construction workdays that year. Table 6 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 6, predicted annualized daily average project construction emissions would not exceed the BAAQMD significance thresholds.

Table 6. Construction Period Emissions - Unmitigated

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
Phase 1	7.32	12.29	0.60	0.43
Phase 2	6.54	10.19	0.50	0.35
Phase 3	7.96	8.71	0.43	0.31
Average Daily Construction Emissions (pounds/day)				
Phase 1 (565 construction workdays)	25.90	43.52	2.11	1.51
Phase 2 (783 construction workdays)	16.70	26.03	1.28	0.88
Phase 3 (674 construction workdays)	23.61	25.84	1.26	0.91
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	**No**	**No**	**No**	**No**

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's standard best management practices.

Mitigation Measure AQ-1: **Basic Construction Best Management Practices**.

The project shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD "Basic Construction Best Management Practices":

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

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 miles per hour (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 excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

9. Publicly visible signs shall be posted with the telephone number and name of the 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 General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Mitigation Measure AQ-1: Basic Construction Best Management Practices

The measures above are consistent with BAAQMD-recommended basic BMPs for reducing fugitive dust contained in the BAAQMD CEQA Air Quality Guidelines. For this analysis, only the basic set of BMPs are required as the baseline fugitive dust emissions from construction are below the BAAQMD single-source threshold.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future employees, and operation of the emergency generators. 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 Inputs

CalEEMod modeling output and information used in the modeling is contained in *Attachment 2*.

Land Uses

The project land uses for all three phases were combined and input to CalEEMod as described above for the construction period modeling. Table 7 describes the land use input to CalEEMod for the full operation of the project.

Table 7. Summary of Project Land Use Inputs – Full Build

Project Land Uses – Full Build	Size	Units	Square Feet (sf)	Acreage
Office/Research & Development	1,734.53	1,000-sf	1,734,532	24.7
Unenclosed Parking with Elevator	3,373	Parking Space	1,349,200	
City Park	2	Acre	87,120	
Day-Care Center	9.44	1,000-sf	9,443	
Library*	2.1	1,000-sf	2,100	
Convenience Market (24 Hour)	4.5	1,000-sf	4,500	
Notes: * Library land use type used for project community center since CalEEMod does not have this land use.				

Model 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 CalEEMod. The earliest year of full operation could be 2030. While construction may be completed later, this analysis is conservatively high because emissions associated with build-out later than 2030 would be lower due to increasing emissions controls.

Traffic Information

CalEEMod allows the user to enter specific vehicle trip generation rates. The project's trip generation rate was adjusted in CalEEMod based on information provided by the applicant. The default trip types and lengths specified by CalEEMod were also used. Assuming a full build out of the site, the project is expected to generate 23,472 daily trips. A TDM plan was designed for this project and is expected to offset 20 percent of the trips to the project site. As a result, the total daily trips generated by the project, after including a TDM reduction, is expected to be 18,972.

These trip rates were modified based on information provided by the applicant for a smaller total project. The trip rate provided by the applicant was scaled up with the increased square footage of the project scope.[9]

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 and fleet mix were updated with the emission rates and fleet mix from EMFAC2021, which were adjusted with the CARB EMFAC off-model adjustment factors. On road emission rates from 2030 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.[10]

Advanced Clean Car II Adjustments to Mobile Emissions

Adjustments to emission rates for ROG and NOx were made based on the recently adopted Advanced Clean Car II regulation (ACC II), adopted November 2022.[11] This new regulation will increase the number of light-duty automobile and truck EVs on the road by setting zero-emission vehicle (ZEV) sales standards in California. ACC II will further reduce emissions from light-duty vehicles starting in year 2026. The effects of this regulation will be incorporated into the next version of EMFAC that is scheduled to be released in 2024. ZEV vehicles will make up a greater proportion of the vehicle fleet than currently reflected in the EMFAC2021 model. Adjustments to the emission produced by CalEEMod using EMFAC2021 emission rates were adjusted as follows:

1. Identify the light-duty vehicle fleet by model year and then technology type in EMFAC2021 for default San Mateo County conditions.
2. Adjust the percentage of ZEV light-duty vehicles in EMFAC2021 to reflect ACC II conditions for year 2026 and newer. Note ACC Phase II requires the fraction of EVs to increase from 35 percent in model year 2026 to 68 percent in 2030.
3. Recompute aggregate emission rates for light-duty vehicles with ACC II conditions and compare to default EMFAC2021 light duty emission rates.
4. Apply difference to light-duty vehicle portion of EMFAC2021 emission rates and recompute total emission rates for all vehicle types.
5. Determine percentage difference between default and ACC Phase II adjusted emission rate and apply to total mobile emissions computed by CalEEMod using the default San Mateo County conditions developed by EMFAC2021. Note that most PM_{10} and $PM_{2.5}$ emissions are from tire wear, brake wear or reentrained roadway dust, so these emissions were not adjusted.

[9] Email from Rebecca Auld, October 20, 2021.
[10] See CARB 2021: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac
[11] Advanced Clean Cars II, web: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii

This adjustment results in, overall, a 13 percent greater penetration of EV light-duty vehicles. When considering the non-light-duty emissions, there would be an 8% reduction in ROG emissions and a 5% reduction in NOx emissions over those emissions computed using CalEEMod with EMFAC2021. The calculations supporting this adjustment to mobile emissions are included in *Attachment 2*.

Energy

The project proponent has committed to buildings with no natural gas infrastructure or appliances, although future tenants could run lab equipment with "point of use" natural gas. Any point of use natural gas usage are expected to produce negligible emissions. The energy intensity factor for natural gas in CalEEMod was set to zero and all energy use has been included in the project's electricity intensity. GHG emissions modeling includes those indirect emissions from electricity consumption. The model has a default rate of 0 pounds of CO_2 per megawatt of electricity produced, which is based on Peninsula Clean Energy's 2019 emissions rate. The project applicant has committed to using energy supplied by Peninsula Clean Energy.

Project Cooling Towers

The project would include 22, two-cell, rooftop cooling towers. Buildings B1, B4, and B6 would include four cooling towers. Buildings B2, B3, and B5 would have three cooling towers. Building B7 would have one cooling tower. Particulate matter emissions from evaporative cooling can occur and are a result of evaporation of liquid water entrained in the discharge air stream and carried out of the tower as "drift" droplets that contain dissolved solids in the water. Drift droplets that evaporate can produce small particulate matter (i.e., PM_{10} and $PM_{2.5}$) emissions. These emissions are generated when the drift droplets evaporate and leave the particulate matter formed by crystallization of dissolved solids. Since these cooling towers would not use process water (typically used in refineries), ROG emissions would be negligible.

The $PM_{2.5}$ emissions from each evaporative cooling were calculated based on information provided by the project applicant, the City of San Carlos, and some conservative assumptions. Information provided by the applicant included the number of cells in each cooling tower and the water flow rate for each cooling tower. The total dissolved solids (TDS) concentration of 104 parts per million (ppm) in the recirculating water was found in the 2022 City of San Carlos Water Quality Report. Assumptions included the cycles of concentration, mist eliminator efficiency, and the hours of operation (assumed to be operating 24 hours a day 7 days per week). These assumptions were based on cooling towers for similar projects. $PM_{2.5}$ emissions were calculated based on this information and methodology used by the South Coast Air Quality Management District (SCAQMD).[12] The particulate matter emissions for the proposed cooling towers are included in *Attachment 4*.

[12] South Coast AQMD, *Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds, Appendix A*. October 2006. Web: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf

Project Generator

Buildings B1 through B6 would include diesel-fired emergency generators. Each building would come with a base life safety emergency generator and space for a tenant generator. For this analysis, it was assumed that all tenant generators were present, bringing the project total generator quantity to 12. For this analysis, it was assumed that each base generator would be 2,000-kilowatts (kW) and each tenant generator would be 1,500kW based on information provided by the project applicant.[13]

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. During testing periods, the engine would typically be run for about one-half hour every two weeks. There may be some minor testing during any maintenance activities. The engines would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. The generator emissions were modeled using CalEEMod. 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. These include emission limits similar to U.S. EPA Tier 4 standards for the engines larger than 1,000-hp.

The modeling assumed 50 hours operation per year. This accounts for routine testing and maintenance. Generators would operate during power outages, but these are anticipated to be rare and accumulate to less than 10 hours per year. PG&E reports that the Peninsula, where the Project is located, experienced 60.5 to 161.2 minutes of power outages during the period 2017 to 2022.[14] This equates to less than 3 hours for the maximum outage time per year. Assuming testing requires 14 hours per year,[15] the annual generator operation would be less than 50 hours per year. Note that due to the Project location, power outages due to Public Power Shut-off (PSPS) outages are unlikely. The Project is not in an area with a Fire Potential Index, as reported by PG&E.[16]

Consumer Products

The project's area sources for operational ROG emissions would include consumer products. These products include cleaning supplies, kitchen aerosols, cosmetics, toiletries, and other solvents. The default CalEEMod emission factor for these consumer products has been updated to reflect more recent San Mateo County conditions, the change in emissions, square footage, and county population. An updated consumer products ROG emission factor of 1.95 E^{-05} pounds per square foot per day was calculated and used for this analysis. This was based on the CARB 2030

[13] Email from Rebecca Auld, Lamphier-Gregory, February 20, 2024.
[14] Pacific Gas and Electric Company. 2023. 2022 Annual Reliability Report (Per Decision 16-01-008). July 15. See: https://www.pge.com/assets/pge/docs/about/pge-systems/CPUC-2022-Annual-Electric-Reliability-Report.pdf. Accessed Sep. 8, 2023.
[15] Emergency generators are typically tested by being run for one-half hour every two weeks, or one hour per month for a total of 12 hours. Use of 14 hours assumes that some tests run beyond a half hour.
[16] PG&E 2022. 2022 *Wildfire Mitigation Plan Update*. February 25. See: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2022-wmp/ Figure PG&E-4.5.1-17

emission inventory for consumer products under solvent evaporation,[17] the population estimates (past, present and future) for San Mateo County from the California Department of Finance, and the total building square footage from the most recent version of the FEMA HAZUS-MH software. The development of this updated factor follows the methodology used by CalEEMod. Data sources used to compute the consumer product ROG factor are included in *Attachment 2*.

Other Inputs

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

Existing Uses

The existing site is occupied by multiple office buildings and associated warehouse storage. A CalEEMod run was developed to estimate the emissions from the existing use of the site. As provided by the applicant, these existing uses include 101,860-sf of office space and 2,369-sf of warehouse storage in Phase 2, and 79,952-sf of office space and 47,887-sf of warehouse storage in Phase 3. The office space and warehouse storage were entered into CalEEMod under the General Office Building and Unrefrigerated Warehouse-No Rail land use types. These existing uses generated an estimated 1,858 daily trips.

Conclusion AIR-1.2

Annual emissions were predicted using CalEEMod. The daily emissions were calculated assuming 365 days of operation. Table 8a shows average daily emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. Table 8b shows the same information but for when phase 1 is operating while phase 2 is under construction. Table 8c again shows the same information but for when phases 1 and 2 are operating while phase 3 is being constructed.

When all three phases are operational, the operational period emissions would not exceed the BAAQMD significance thresholds with the exception of ROG emissions. Similarly, ROG emissions exceed the BAAQMD significance threshold when phase 1 is operating during construction of phase 2, and phases 1 and 2 are operating during construction of phase 3.

[17] The year 2030 inventory was used as that is the earliest year the entire project could be built. Earlier years with less operational buildings would have lower emissions.

Table 8a. Operational Period Emissions – Full Project

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Unmitigated 2030 Project Operational Emissions (*tons/year*)	12.92	4.26	11.02	2.82
Mitigated 2030 Project Operational emission (*tons/year)*	11.48	4.26	11.02	2.82
2030 Existing Use Emissions (*tons/year*)	1.67	0.90	1.19	0.31
Unmitigated Net Total (*tons/year)*	**11.24**	3.37	9.84	2.51
Mitigated Net Total (*tons/year*)	9.81	3.37	9.84	2.51
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Thresholds*?* *Unmitigated*	**Yes**	No	No	No
Mitigated	No	No	No	No
Unmitigated Net New (lbs./day)	**61.61**	18.44	53.90	13.76
Mitigated Net New (lbs./day)	53.73	18.44	53.90	13.76
BAAQMD Thresholds (lbs./day)	*54 lbs.*	*54 lbs.*	*82 lbs.*	*54 lbs.*
Exceed Thresholds*?* *Unmitigated*	**Yes**	No	No	No
Mitigated	No	No	No	No

Notes: [1] Assumes 365-day operation.

Table 8b. Phase 1 Operational and Phase 2 Construction Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Phase 1 Operational	4.14	1.74	3.22	0.83
Phase 2 Construction Highest Year Unmitigated	4.68	4.45	0.22	0.16
Phase 2 Construction Highest Year Mitigated	0.59	3.95	0.12	0.07
Unmitigated Total (*tons/year)*	8.82	6.19	3.44	0.99
Mitigated Total (*tons/year)*	4.73	5.69	3.34	0.90
BAAQMD Thresholds (tons/year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold? *Unmitigated*	*No*	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*	*No*
Phase 1 Operational	22.71	9.52	17.65	4.52
Phase 2 Construction Highest Year Unmitigated	36.01	33.96	1.67	1.19
Phase 2 Construction Highest Year Mitigated	4.52	30.29	0.96	0.54
Unmitigated Total (*pounds/day)*	**58.72**	43.48	19.32	5.71
Mitigated Total (*pounds/day*)	27.23	39.81	18.61	5.06
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold? *Unmitigated*	***Yes***	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*	*No*

Table 8c. Phase 1 + 2 Operational and Phase 3 Construction Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Phase 1 + 2 Operational	8.87	4.33	7.10	1.88
Phase 3 Construction Highest Year Unmitigated	7.39	3.15	0.15	0.11
Phase 3 Construction Highest Year Mitigated	0.88	3.05	0.10	0.06
Unmitigated Total (*tons/year)*	**16.20**	7.48	7.25	1.99
Mitigated Total (*tons/year)*	9.75	7.38	7.20	1.94
BAAQMD Thresholds (tons/year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold? *Unmitigated*	***Yes***	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*	*No*
Phase 1 + 2 Operational	48.65	23.69	38.91	10.15
Phase 3 Construction Highest Year Unmitigated	21.93	9.35	0.46	0.32
Phase 3 Construction Highest Year Mitigated	2.61	9.06	0.30	0.17
Unmitigated Total (*pounds/day)*	**70.58**	33.04	39.37	10.47
Mitigated Total (*pounds/day*)	51.26	32.75	39.21	10.32
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold? *Unmitigated*	***Yes***	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*	*No*

Mitigation Measure AQ-2: Require use of super-compliant VOC coatings to reduce ROG emissions.

The project shall use super-compliant volatile organic compound (VOC, i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings last amended in July 2009), for at least 90 percent of all interior and exterior paints for the lifetime of the project. At least 90 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint, which achieves the required reduction. This mitigation measure applies to 90 percent of coatings since there may be some special coatings required for certain aspects of the project that cannot meet this requirement.

Effectiveness of Mitigation Measure AQ-2

Super-compliant architectural coatings are provided by some of the most popular manufacturers, including Behr, Benjamin Moore, Dunn Edwards, Rust-Oleum, and Sherwin-Williams.[18] It is assumed that interior and exterior paint applications could be feasibly controlled through this mitigation measure. Through *Mitigation Measure AQ-2,* construction ROG emissions would decrease by 80 percent or more during the years with the highest emissions. During operation, the implementation of *Mitigation Measure AQ-2* would reduce total ROG emissions by 11 percent or 1.43 tons per year for operation (7.88 pounds per average day).

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

Project impacts related to increased health risk can occur either 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

[18] South Coast Air Quality Management District, Super Compliant Architectural Coatings, available at https://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/super-compliant-coatings.

sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., mobile sources).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would include the installation of emergency generators powered by diesel engines and cooling towers. Traffic generated by the project would consist of mostly light-duty gasoline-powered vehicles, which would produce TACs and air pollutant 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 impact of the existing sources of TACs was also assessed in terms of the cumulative risk which includes the project contribution.

Health Risk Methodology for Construction and Operation

Health risk impacts are addressed by predicting increased lifetime 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, project generators, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,[19] with the 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 theoretically maximum exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.[20]

The methodology for computing health risk 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 the existing residences to the southwest of the site, as shown in Figure 2. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions. Note that worker receptors are much less sensitive to TACs than assumed residential receptors that include infants and small children and would have less exposure due to less exposure time reflecting a work day, where residences are assumed in the analysis to have

[19] BAAQMD, Appendix E of the 2022 *BAAQMD CEQA Guidelines*, April 2023.
[20] The MEI is a hypothetical individual who, due to realistically assumed age, proximity, activities, and living habits, would receive the highest TAC or $PM_{2.5}$ concentration from the combination of all project emission sources.

almost continuous exposure to project emissions, which would reflect staying at the residence all day every day.

Health Risk from the Project Construction and Operation

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust emissions pose health risks for sensitive receptors such as surrounding residents. The primary risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[21] This assessment included dispersion modeling to predict the offsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

The three identified TAC and annual $PM_{2.5}$ sources associated with the project once in operation would be employee trips, cooling tower operation, and infrequent operation of standby generators (assumed to be powered by diesel fuel). Vehicular traffic from the project is assumed to be made up of mostly gasoline-powered vehicles.

Construction Emissions

The CalEEMod model and EMFAC2021 emissions provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages as 0.36 tons (719 pounds) for Phase 1, 0.29 tons (573 pounds) for Phase 2, and 0.26 tons (524 pounds) for Phase 3. The on-road emissions are a result of haul truck travel during grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.16 tons (326 pounds) for construction in Phase 1, 0.15 tons (300 pounds) for Phase 2, and 0.16 tons (328 pounds) for Phase 3.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors 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.[22] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

[21] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.
[22] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

Construction Sources

To represent the construction equipment exhaust emissions, an area source emission release height of 20 feet (6 meters) was used for the area sources.[23] 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 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.

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.

Truck Haul Route

The applicant provided a truck hauling route during the grading phase of construction for heavy duty trucks coming to and leaving the construction site. This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for truck traffic on the haul route using the Caltrans version of the CARB EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides aggregate emission factors in for dispersion modeling of 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 $PM_{2.5}$. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (San Mateo County), type of road (major/collector), year of analysis (2021 – construction year), and season (annual). Instead of using the local truck mix for San Mateo County, it was assumed that the hauling trips were 100% medium and heavy heavy-duty trucks.

The emission factors generated by CT-EMFAC2017 were applied to the number of truck trips generated by CalEEMod for site grading. For all hours of the day, an average speed of 35 mph on the inbound and outbound haul routes was assumed for all trucks based on posted speed limit signs on the roadways. Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD dispersion model, which is recommended by the BAAQMD for this type of

[23] 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

analysis.[24] TAC and $PM_{2.5}$ emissions from truck traffic on the haul route within about 1,000 feet of the project site were evaluated with the model. Emissions from truck traffic were modeled in AERMOD using a series of volume sources along a line (line volume sources), with line segments used to represent opposing travel lanes on the haul route. The same meteorological data and off-site sensitive receptors used in the previous construction dispersion modeling were used in the highway and roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations and heights. Annual TAC and $PM_{2.5}$ concentrations for 2021 on the haul route were calculated using the model. Concentrations were calculated at the project MEI.

Project Operational Traffic

As discussed above in the Operational Period Emission section, the project applicant provided project specific trip generation. Assuming a full build out of the project site, it is expected that the project will generate 18,972 daily trips. These trips were modeled to occur on Brittan Ave, Old County Road, and Commercial Street. The emission factors were generated in the same manner as the Truck Haul Route. However, since the vehicle mix during operations is expected to be similar to the vehicle mix seen in the County overall, , the local vehicle mix for San Mateo County was used to determine the number of diesel-powered vehicles and generate the emission factors from trucks. Average hourly traffic distributions for San Mateo County roadways were developed using the EMFAC model,[25] which were then applied to the project volumes to obtain estimated hourly traffic volumes and emissions for the roadways. For all hours of the day an average speed of 25, 30, and 35 mph on Commercial Street, Brittan Avenue, and Old County Road, respectively, was assumed for all vehicles based on posted speed limit signs on the roadways. The long-term impacts were modeled using AERMOD in the same manner as the Truck Haul Route at the project MEI.

Project Generators

As discussed above in the Operational Period Emissions section, Buildings B1 through B6 would include diesel-fired emergency generators. Each building would come with a base life safety emergency generator and space for a tenant generator. For this analysis, it was assumed that all tenant generators were present, bringing the project total generator quantity to 12. For this analysis, it was also assumed that each base generator would be 2,000-kilowatts (kW) and each tenant generator would be 1,500kW based on information provided by the project applicant.[26]

Operation of a diesel generator would be a source of TAC emissions. The generators would be operated for testing and maintenance purposes and, should one occur, an emergency, with a maximum of 50 hours per year operation assumed. 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. Additionally, the generators would have to meet BAAQMD BACT requirements for IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire

[24] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012
[25] 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.
[26] Email from Rebecca Auld, Lamphier-Gregory, February 20, 2024.

pump sources. Based on the size of the proposed generator, these include emission limits similar to U.S. EPA Tier 4 engines. The emissions from the operation of the generators were calculated using the CalEEMod model.

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 each be equipped with an engine 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 Best Available Control Technology for Toxics (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 health risk impact.

To obtain an estimate of potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generators at the project MEI, the U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at off-site sensitive receptor locations (residences). The same receptors, breathing heights, and BAAQMD San José International Airport meteorological data used in the construction dispersion modeling were used for the generator models. Stack parameters for modeling the generators were based on BAAQMD default parameters (i.e., exhaust gas flowrate, stack diameter, stack height, and exhaust gas temperature) for stand-by diesel generators.[27] 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).

Project Cooling Towers

The project would include 22, two-cell, rooftop cooling towers. Buildings B1, B4, and B6 would include four cooling towers. Buildings B2, B3, and B5 would have three cooling towers. Building B7 would have one cooling tower. Particulate matter emissions from evaporative cooling can occur and are a result of evaporation of liquid water entrained in the discharge air stream and carried out of the tower as "drift" droplets that contain dissolved solids in the water. Drift droplets that evaporate can produce small particulate matter (i.e., PM_{10} and $PM_{2.5}$) emissions. These emissions are generated when the drift droplets evaporate and leave the particulate matter formed by crystallization of dissolved solids. Since these cooling towers would not use process water (typically used in refineries), ROG emissions would be negligible.

The $PM_{2.5}$ emissions from each evaporative cooling were calculated based on information provided by the project applicant, the City of San Carlos, and some conservative assumptions. Information provided by the applicant included the number of cells in each cooling tower and the water flow rate for each cooling tower. The total dissolved solids (TDS) concentration of 104 parts per million (ppm) in the recirculating water was found in the 2022 City of San Carlos Water

[27] Bay Area Air Quality Management District, San Francisco Department of Public Health, and San Francisco Planning Department, 2012. *The San Francisco Community Risk Reduction Plan: Technical Support Document,* BAAQMD, December. Web: https://www.gsweventcenter.com/Appeal_Response_References/2012_1201_BAAQMD.pdf

Quality Report. Assumptions included the cycles of concentration, mist eliminator efficiency, and the hours of operation (assumed to be operating 24 hours a day 7 days per week). These assumptions were based on cooling towers for similar projects. $PM_{2.5}$ emissions were calculated based on this information and methodology used by the South Coast Air Quality Management District (SCAQMD).[28] The particulate matter emissions for the proposed cooling towers are included in *Attachment 4*.

Project Laboratories

This type of project may include research and manufacturing type laboratories. Since a specific user or type of lab use is not known at this time, it is not possible to predict whether there would be any TAC emissions and if so the quantities that would be emitted. Typically, laboratory uses have fume hoods and would employ appropriate exhaust systems to control any emission of air pollutants. Emissions of air pollutants or TACs are subject to BAAQMD permitting requirements that would require the District to apply all applicable rules and regulations to limit or control these emissions. Regulation 2, Rule 1: General Requirements, and Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants would apply to any potential emissions from these sources. The District's risk policy is to not issue a permit to any source that would cause a cancer risk of greater than 10 chances per million.

AERMOD Inputs and Meteorological Data

The modeling used a five-year data set (2011 - 2015) of hourly meteorological data from the San Carlos Airport was used with the AERMOD model. Construction emissions were modeled as occurring Monday through Friday between 8:00 a.m. to 5:00 p.m., when the majority of construction activity is expected to occur. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2021-2029 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. Receptor heights of 5 feet (1.5 meters), 15 feet (4.5 meters), and 25 feet (7.6 meters) were used to represent the breathing height on the first, second, and third floor of nearby single and multi-family residences.[29]

Summary of Health Risk Impacts – Off Site

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the Office of Environmental Health Hazard Assessment (OEHHA) guidance for age sensitivity factors and exposure parameters as recommended by BAAQMD (see *Attachment 1)*. Non-cancer health hazards and maximum $PM_{2.5}$ concentrations were also calculated and identified. 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.

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[28] South Coast AQMD, *Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds, Appendix A*. October 2006. Web: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf

[29] 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 value was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation refence exposure level of 5 $\mu g/m^3$.

The cumulative risk impacts from a project are the combination of construction and operation sources. These sources include on-site construction activity and hauling, project traffic, and project generator. The project impact is computed by adding the construction cancer risk for an infant/child to the increased cancer risk for the project operational conditions for the traffic and generator at the MEI over a 30-year period. The project MEI is identified as the sensitive receptor that is most impacted by the project's construction and operation.

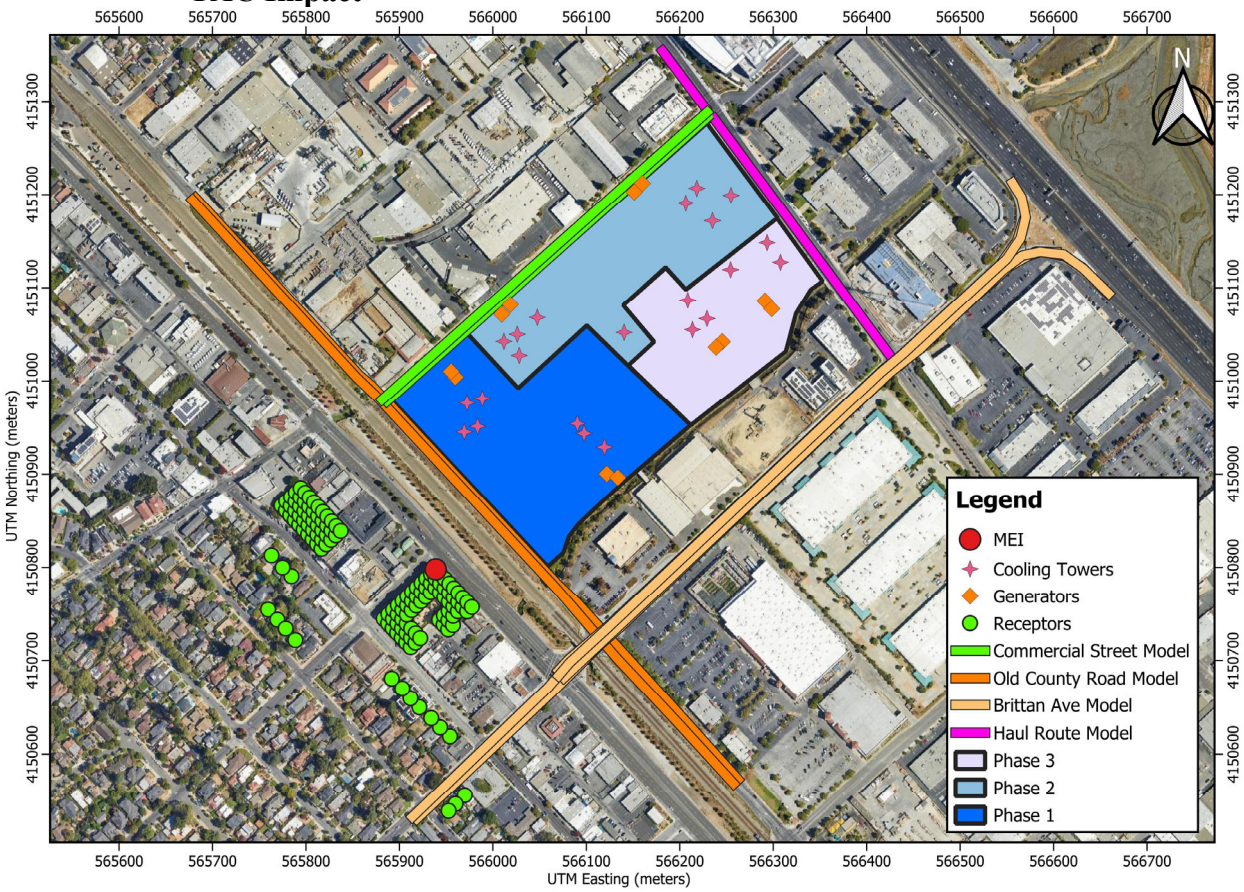
The sensitive receptor identified in Figure 2 is the project MEI. At this location, the MEI would be exposed to 3 years of construction cancer risks, 6 years of construction and operation (includes traffic and stand-by generator) cancer risks, and 21 years of operational cancer risks. The cancer risks from construction and operation of the project were summed together. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI risks are not additive but based on an annual maximum risk for the entirety of the project.

The maximum modeled annual DPM and $PM_{2.5}$ concentrations, which includes both the DPM and fugitive $PM_{2.5}$ concentrations, were identified at nearby sensitive receptors (as shown in Figure 2) to find the MEI. Results of this assessment indicated that the project MEI was located on the first floor (5 feet above ground) of a multi-family residential complex southwest of the project site. Table 10 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities affecting the construction MEI. *Attachment 4* to this report includes the emission calculations used for the construction area source modeling and the cancer risk calculations.

Table 10. Project Health Risk Impacts at the Off-site MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impact				
Project Construction (Phase 1 + Phase 2 + Phase 3)	Unmitigated	21.21 (infant)	0.10	0.02
	Mitigated	4.26 (infant)	0.03	<0.01
Project Generators (various sizes, all diesel-fired emergency generators, 50 hours/year operation each)		0.34	<0.01	<0.01
Project Cooling Towers		-	0.04	-
Project Trips – All Roadways (Phase 1 + Phase 2 + Phase 3)		0.97	0.15	<0.01
Project Haul Route – All Roadways (Phase 1 + Phase 2 + Phase 3)		1.80	0.01	<0.01
Total Project (Construction + Operation)	Unmitigated	**24.32 (infant)**	<0.21	0.02
	Mitigated	7.37 (infant)	<0.21	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	*No*	*No*
	Mitigated	*No*	*No*	*No*

Figure 2. Locations of Construction Project Site (by Phase) and Hauling Routes, Project Traffic and Generators, Off-Site Sensitive Receptors, and Maximum TAC Impact

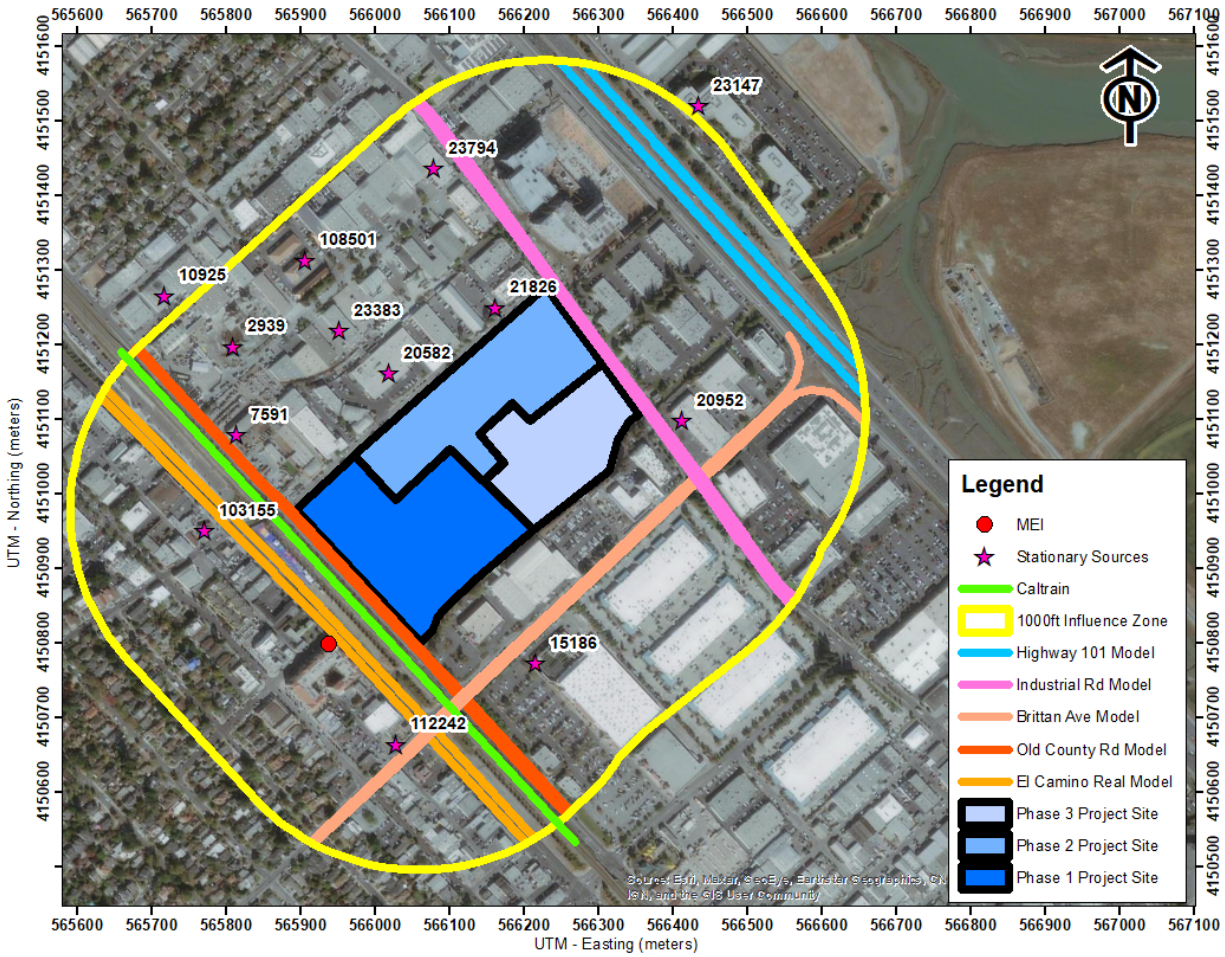


Cumulative Health Risks of all TAC Sources at the Offsite Project MEI

Cumulative 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, highways, busy surface streets, and stationary sources identified by BAAQMD.

A review of the project area and based on provided traffic information indicated that five roadways: Highway 101, El Camino Real, Brittan Ave, Industrial Road, and Old County Road within the influence area would have traffic exceeding 10,000 vehicles per day. A review of the project area includes a Caltrain rail line approximately 200 feet northeast of the project MEI. A review of BAAQMD's stationary source geographic information systems (GIS) map tool identified thirteen stationary sources with the potential to affect the project site and MEI. Figure 3 shows the project area included within the influence area and the location of the MEI. Details of the modeling and health risk calculations are included in *Attachment 5.*

Figure 3. Project Site and Nearby TAC and $PM_{2.5}$ Sources



Rail Line Community Risk Impacts

The Caltrain rail lines are about 80 feet southwest of the site. Rail activity on these lines currently generates TAC and $PM_{2.5}$ emissions from locomotive exhaust. These rail lines are used primarily for Caltrain passenger service; however, there is some freight service by trains using diesel-fueled locomotives. Based on the current Caltrain schedule effective August 30, 2021, there are 104 trains that pass the project site during weekdays and 32 on weekends. In addition to the passenger trains there are about four freight trains that use the rail lines on a daily basis.[30]

Currently, all of Caltrain's trains use diesel locomotives. The Peninsula Corridor Electrification Project is a key component of the Caltrain Modernization Program that would electrify the Caltrain Corridor from San Francisco to the Tamien Caltrain station in San José. As part of the program to modernize operation of the Caltrain rail corridor between San José and San Francisco, Caltrain is planning to phase in the change from using diesel locomotives to use of electric trains.[31] This plan

[30] U.S. Department of Transportation, Federal Railroad Administration. U.S. DOT Crossing Inventory Form for Crossing 754935A. September 2, 2019.
[31] Caltrain, 2014. *Peninsula Corridor Electrification Project. Final Environmental Impact Report.* December 2014.

was formally adopted on January 8, 2015[32] and electrified service is anticipated to begin in late 2024.[33]

Caltrain plans are that initial service between San José and San Francisco would use a mixed fleet of electric and diesel locomotives, with approximately 75 percent of the service being electric and 25 percent being diesel. After the initial implementation period, diesel locomotives would be replaced with electric trains over time as they reach the end of their service life. Caltrain's diesel-powered locomotives would continue to be used to provide service between the San José Diridon Station and Gilroy. It is expected that all of the San José to San Francisco fleet would be electric trains about five to eight years after initial electric service begins.[34]

Starting in 2024 with Caltrain electrification, there would be 24 daily weekday trips and 4 daily weekend trips using trains with diesel locomotives.[35] On an annual average basis this would be a total of 18 daily trains using diesel locomotives. Use of these diesel trains by Caltrain between San Francisco and San Jose would be phased out over time and replaced by electric trains. All trains used for freight service were assumed to use diesel powered locomotives.

Rail Line Emissions

For this evaluation it was assumed that during the period from 2021 through 2024 all trains would continue to use diesel locomotives. Along the rail line near the project site there would be a total of 83 daily trains using diesel locomotives on an annual average basis. Starting in 2025 when Caltrain electrification occurs there would be 24 daily weekday trips and 4 daily weekend trips using trains with diesel locomotives.[36] On an annual average basis there would be a total of 18 daily trains using diesel locomotives. Although these diesel locomotives would be replaced over time with electric locomotives, it was conservatively assumed for this evaluation that diesel emissions would remain at the 2025 levels in the future. All trains used for freight service were assumed to use diesel powered locomotives. In the vicinity of the project site all trains were assumed to be traveling at an average speed 40 mph.

DPM and $PM_{2.5}$ emissions from trains on the rail line were calculated using EPA emission factors for locomotives[37] and CARB adjustment factors to account for fuels used in California.[38] Caltrain's current locomotive fleet consists of twenty-three 3,200 hp locomotives of model year or overhaul date of 1999 or later, three 3,200 hp locomotives of model year 1998, and six 3,600 hp locomotives of model year 2003.[39] The current fleet average locomotive engine size is about 3,285 hp. In estimating diesel emissions for 2021 through 2024 prior to electrification a fleet average locomotive engine size of 3,285 hp was used. When electrification occurs, Caltrain will initially

[32] Caltrain, 2015. *Peninsula Corridor Electrification Fact Sheet.* May 2015.
[33] Caltrain, 2021. *Caltrain Electrification Delayed to 2024*. June 3, 2021. See: *www.caltrain.com/about/MediaRelations/news/Caltrain_Electrification_Delayed_to_2024.html*
[34] Caltrain 2015. *Short Range Transit Plan:FY2015-2024*. October 1, 2015.
[35] Caltrain 2015. *Short Range Transit Plan:FY2015-2024*. October 1, 2015.
[36] Caltrain 2015. *Short Range Transit Plan:FY2015-2024*. October 1, 2015.
[37] *Emission Factors for Locomotives*, USEPA 2009 (EPA-420-F-09-025)
[38] *Offroad Modeling, Change Technical Memo*, Changes to the Locomotive Inventory, CARB July 2006.
[39] Caltrain *Commute Fleets*. Available at: http://www.caltrain.com/about/statsandreports.html. Accessed January 4, 2022.

retain the six 3,600 hp locomotives and the three model year 1998 3,200 hp locomotives.[40] In estimating diesel locomotive emissions for the case of electrification, an average locomotive horsepower of 3,467 hp was used. Emissions from the freight trains were calculated assuming they would use two diesel locomotives with 2,300 hp engines (total of 4,600 hp) and would be traveling at 40 mph. Since the exposure duration used in calculating residential cancer risks is 30 years (in this case the period from 2021 through 2050), the passenger and freight train average DPM and $PM_{2.5}$ emissions were calculated based on average EPA emission factors for the periods 2021-2024 and 2025-2050.

Highways – U.S. Highway 101

The project MEI is located near Highway 101. A refined analysis of the impacts of TACs and $PM_{2.5}$ to the MEI receptor is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from Highway 101. A review of the traffic information reported by Caltrans indicates that Highway 101 traffic includes 197,000 vehicles per day (based on an annual average)[41] that are about 4.2 percent trucks, of which 1.7 percent are considered diesel heavy duty trucks and 2.6 percent are medium duty trucks.[42]

Local Roadways – El Camino Real, Brittan Ave, Industrial Road, Old County Road

A refined analysis of potential health impacts from vehicle traffic on El Camino Real, Brittan Ave, Industrial Road, and Old County Road was also 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 are then computed based on the modeled exposures. *Attachment 1* includes a description of how health risk impacts, including cancer risk are computed.

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on Highway 101 and each local roadway using the Caltrans version of the CARB EMFAC2021 emissions model, known as CT-EMFAC2021. CT-EMFAC2021 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 $PM_{2.5}$. All $PM_{2.5}$ 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 from re-entrained roadway dust were included in these emissions. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2021 emissions data. Inputs to the model include region (San Mateo County), type of road (freeway and major/collector), traffic mix assigned by CT-EMFAC2021 for the county, adjusted for the local truck mix on Highway 101 and truck percentage for non-state highways in San Mateo County

[40] Caltrain 2015. *Short Range Transit Plan:FY2015-2024*. October 1, 2015.
[41] Caltrans. 2021. *2020 Traffic Volumes California State Highways.*
[42] Caltrans. 2021. *2020 Annual Average Daily Truck Traffic on the California State Highway System.*

(3.13 percent),[43] year of analysis (2021, 2024, 2026 – construction year for Phase 1, 2, and 3), 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 MEI and project site, the CT-EMFAC2021 model was used to develop vehicle emission factors for the year 2021, 2024, and 2026 (construction year for Phase 1, 2, and 3). 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-EMFAC2021. Year 2021, 2024, and 2026 emissions were conservatively assumed as being representative of future conditions, after each respective phase of construction, 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.

Average daily traffic (ADT) volumes and truck percentages were based on Caltrans data for Highway 101. Traffic volumes were assumed to increase 1 percent per year for a total of 204,880 vehicles in 2024, and 208,820 vehicles in 2026. Highway 101 is outside of the 1,000-ft influence zone of Phase 1 and, therefore, was not modeled for Phase 1 construction. Hourly traffic distributions specific to these segments of Highway 101 were obtained from Caltrans Performance Measurement System (PeMS). PeMS data is collected in real-time from nearly 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California.[44] The fraction of traffic volume each hour was calculated and applied to the 2024 average daily traffic volumes estimate to estimate hourly traffic emission rates for Highway 101. While traffic volumes will increase in the future, emission factors are decreasing at a faster rate than road volumes are increasing.

Based on traffic data from the Caltrans PeMS, traffic speeds during the daytime and nighttime periods were identified. For northbound traffic on Highway 101, the following speeds were assumed for all vehicles:

- 65 mph – From 7:00 p.m. until 3:00 p.m.
- 60 mph – From 3:00 p.m. until 4:00 p.m., and from 6:00 p.m. until 7:00 p.m.
- 55 mph – From 4:00 p.m. until 6:00 p.m.

For southbound traffic on Highway 101, the following speeds were assumed for all vehicles:

- 65 mph – All hours, except 8:00 a.m. until 9:00 a.m.
- 60 mph – From 8:00 a.m. until 9:00 a.m.

The ADT for each local roadway was based on traffic data from the analysis performed by *Illingworth & Rodkin, Inc.* on the project located at 1477 El Camino Real in Belmont, CA. The estimated ADT on El Camino Real was 34,752 vehicles in 2021, 35,754 vehicles in 2024, and 36,423 vehicles in 2026 based on a 1 percent per year increase from an assumed 2017 ADT of

[43] 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

[44] https://dot.ca.gov/programs/traffic-operations/mpr/pems-source

33,415. For Brittan Ave and Industrial Road, the estimated ADT was 20,800 vehicles in 2021, 21,400 vehicles in 2024, and 21,800 vehicles in 2026 based on a 1 percent increase from an assumed 2017 ADT of 20,000. For Old County Road, the estimated ADT was 11,000 vehicles in 2021, 11,330 vehicles in 2024, and 11,550 vehicles in 2026 based on a 1 percent increase from an assumed 2021 ADT of 11,000.

Average hourly traffic distributions for San Mateo County roadways were developed using the EMFAC model,[45] 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 mph on El Camino Real, Industrial Road, and Old County Road was used for all hours of the day based on posted speed limit signs on the roadway. For Brittan Avenue, an average travel speed of 30 mph was used for all hours of the day based on posted speed limit signs on the roadway.

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for future traffic on Highway 101 and each local roadway, and using these emissions with an air quality dispersion model to calculate TAC and $PM_{2.5}$ concentrations at the project MEI receptor locations. Maximum increased lifetime cancer risks and annual $PM_{2.5}$ concentrations for the receptors were then computed using modeled TAC and $PM_{2.5}$ concentrations and BAAQMD methods and exposure parameters described in *Attachment 1*.

Caltrain and Roadway Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD dispersion model, which is recommended by the BAAQMD for this type of analysis.[46] TAC and $PM_{2.5}$ emissions from the nearby Caltrain line, and traffic on Highway 101 and each local roadway within 1,000 feet of the project site were evaluated with the model. Emissions from vehicle traffic and train travel were modeled in AERMOD using a series of volume sources along a line (line volume sources), with line segments used to represent opposing travel lanes on Highway 101, each local roadway, and the Caltrain rail line. The same meteorological data and off-site sensitive receptors used in the previous project dispersion modeling were used in the highway and roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations and heights. Annual TAC and $PM_{2.5}$ concentrations for 2021 , 2024, and 2026 from traffic on roadways within 1,000 feet of the relevant phase of development, including Highway 101 and each local roadway were calculated using the model. Concentrations were calculated at the project MEI with receptor heights of 5 feet (1.5 meters) to represent the breathing heights on the first floor of the nearby residence. Health risk impacts from the rail line and roadways sources upon the MEI are reported in Table 11 and calculations are included in *Attachment 5*.

[45] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2021 does not include Burden type output with hour by hour traffic volume information.
[46] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

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,[47] 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. Thirteen sources were identified using this tool.

The screening level risks and hazards provided by BAAQMD for each stationary source was adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines, Gasoline Dispending Facilities, and Generic Equipment*. Health risk impacts from the stationary source upon the MEI are reported in Table 10 and calculations are included in *Attachment 5*.

Stationary-Source: CEMEX Construction Materials Pacific, LLC (Plant #2939)

The project site is near a ready-mix concrete manufacturing plant, CEMEX Construction Materials Pacific, LLC, that is permitted to operate as Plant #2939. Concrete plants are a source of $PM_{2.5}$ emissions associated with the pulverization of raw material, kiln burning, clinker production and storage, and other processes at the facility. BAAQMD provides screening $PM_{2.5}$ risk predictions for this facility through their Source Risk & Hazards Screening Report that was run on December 1, 2021. The screening annual $PM_{2.5}$ concentration at the facility was reported at 8.5 ug/m^3. However, this is an over prediction because BAAQMD uses maximum permitted values rather than actual production values. Since screening projections indicated the annual $PM_{2.5}$ emissions would be above the single-source threshold, the next step in this evaluation was to conduct a more refined screening assessment of the facility based on additional tools. This involves obtaining actual emissions data for the facility reported by the California Air Resource Boards' California Emissions Inventory Data Analysis and Reporting System (CEIDARS) and conducting dispersion modeling.

For modeling fugitive $PM_{2.5}$ emissions, an area source with a near-ground level release height of 7 feet (2 meters) was used. The emission rate for the area source was based on the size of the parcel the CEMEX plant is located on, and the $PM_{2.5}$ emissions reported in 2019 to CEIDARS. It is assumed that the emissions generated by the CEMEX plant would be distributed evenly over the entire area source. 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 this reason, a 7-foot release height was used as the average release height across the CEMEX site.

Conclusion AIR-2

Table 11 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by construction (i.e., the MEI). Roadways risk impacts shown in Table 11 are based on a conservative "worst-case" scenario. This worst-case scenario assumes 2021 emission rates for all local roadways and 2024 emission rates for Highway 101 since, as mentioned above, overall vehicle emissions will decrease in future years. With the implementation of *Mitigation Measures*

[47] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

AQ-1 and AQ-3, the project's cancer risk, $PM_{2.5}$ concentration, and HI would be lowered to a level below the single-source thresholds. Because the project's health risk would not exceed the single source thresholds, the project would not be considered to have a cumulatively significant impact on the MEI as the contribution from the project is not cumulatively considerable.[48] However, the cumulative cancer risk, HI, and annual $PM_{2.5}$ concentrations are provided in Table 10 for informational purposes. As shown, cumulative source thresholds at the MEI are exceeded due to the MEI's location near two significant sources of TAC emissions: El Camino Real and CEMEX Construction Materials Pacific, LLC. These existing sources of TAC emissions are shown by BAAQMD to exceed the single source threshold. However, because the project conforms to the BAAQMD single-source significance thresholds, the project would not be considered cumulatively considerable to the cumulative health risk impacts at the MEI. Furthermore, with implementation of the mitigation measures discussed above, 85 percent of the cumulative cancer risk and 87 percent of the cumulative annual $PM_{2.5}$ concentration at the project MEI are from existing sources.

[48] Per email from BAAQMD, Areana Flores, on February 23, 2021.

Table 11. Impacts from Combined Sources at Project MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Total Project (Construction + Operation)	Unmitigated	**24.32 (infant)**	<0.21	0.02
	Mitigated	7.37 (infant)	<0.21	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	*No*	*No*
	Mitigated	*No*	*No*	*No*
Cumulative Sources				
Highway 101, Worst-Case Scenario		0.84	0.02	<0.01
El Camino Real, Worst-Case Scenario		8.72	0.47	<0.01
Brittan Ave, Worst-Case Scenario		0.80	0.03	<0.01
Industrial Road, Worst-Case Scenario		0.13	0.01	<0.01
Old County Road, Worst-Case Scenario		0.13	0.01	<0.01
Caltrain		28.80	0.06	<0.01
CEMEX Construction Materials Pacific, LLC (Facility ID #2939, Ready-Mix Concrete Manufacturing), MEI at 1000+ feet		0.36	0.64	0.01
Garden Supply (Facility ID #7591, Wood Working Operation – Exempt), MEI at 1000+ feet		<0.01	0.02	<0.01
Royalite Manufacturing Inc. (Facility ID #10925, Metal Coating Operation), MEI at 1000+ feet		<0.01	<0.01	<0.01
The Home Depot (Store #0628) (Facility ID #15186, Generator), MEI at 840 feet		0.37	<0.01	<0.01
Nxedge San Carlos (Facility ID #20582, Generator, Boilers, Colvent Cleaning Operations), MEI at 1000+ feet		0.10	0.01	<0.01
City of San Carlos (Facility ID #20952, Generator), MEI at 1000+ feet		<0.01	<0.01	<0.01
Sutro BioPharma (Facility ID #21826, Generators), MEI at 1000+ feet		0.62	<0.01	<0.01
Grove Construction (Facility ID #23383, Sub-slab Vapor Mitigation System), MEI at 1000+ feet		0.02	<0.01	<0.01
Caliber Collision Center (Facility ID #23794, Auto Body Coating Operation), MEI at 1000+ feet		<0.01	<0.01	<0.01
Nielsen Automotive Inc (Facility ID #103155, Gas Dispensing Facility), MEI at 880 feet		0.27	<0.01	<0.01
City of San Carlos – Corporation Yard (Facility ID #108501, Gas Dispensing Facility), MEI at 1000+ feet		0.14	<0.01	<0.01
Brittan Shell (Facility ID #112242, Gas Dispensing Facility), MEI at 360 feet		2.11	<0.01	0.02
Hudson Pacific Properties (Facility ID #23147, Generator), MEI at 1000+ feet		0.08	<0.01	<0.01
Combined Sources	Unmitigated	<67.85	**<1.58**	<0.25
	Mitigated	<50.90	**<1.58**	<0.24
BAAQMD Cumulative Source Threshold		***100***	***0.8***	***10.0***
Exceed Cumulative Threshold?	Unmitigated	*No*	***Yes***	*No*
	Mitigated	*No*	***Yes***	*No*

Mitigation Measure AQ-3: **Construction Period Exhaust Emissions Reduction**
The project shall use construction equipment that has low diesel particulate matter (DPM) exhaust to minimize cancer risk and annual fine particulate matter ($PM_{2.5}$) concentrations, which shall include either A or B below:

A. 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. In rare cases where the use of Tier 4 equipment is not specifically available, alternatively:

    i. use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 70 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; and/or

    ii. use electrical or non-diesel fueled equipment.

B. Alternatively, the applicant can develop a plan that reduces on- and near-site diesel particulate matter emissions by 70 percent or greater. Such a plan would have to be supported by an air quality analysis from a qualified air quality consultant and reviewed and approved by the City.

Effectiveness of Mitigation Measure AQ-3

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 Interim engine standards. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 80 percent to 4.26 chances per million. Assuming a lesser level of mitigation that achieves a 70-percent reduction, increased cancer risks would be reduced to below 10 chances per million. As a result, the project's construction and operational risks would be reduced below the BAAQMD single-source thresholds.

Non-CEQA: On-Site Health Risk Assessment for TAC Sources –Project Daycare

The only sensitive receptor that may be developed by the Project would be a daycare. This daycare potentially could be constructed during Phase 2 as part of Building B7. The daycare is assumed to be operational coinciding with the "Concrete Decks" phase of Phase 3 construction. See *Attachment 2* for the detailed phasing schedule for each phase of project construction. Waiting to begin operation of the daycare in this manner avoids exposing infants and children at the daycare to the worst impacts from Phase 3 construction. A health risk assessment was completed to assess the impact of existing TAC sources and construction of Phase 3 starting at the "Concrete Decks" phase would have on the new proposed sensitive receptors (daycare infants and children) that the project would introduce. The same TAC sources identified above were used in this health risk assessment.[49]

Project Construction

The earliest the potential daycare would be constructed would be during Phase 2. Provided information indicated that the ages of the students at the daycare would be from 6 months to 5 years of age. Therefore, the infant and child cancer risk exposures were used to calculate risks at the daycare. Due to its proposed central location, the daycare would be immediately adjacent to the emissions associated with Phase 3 construction. However, as mentioned above, for this analysis it is assumed that operation of the daycare would begin coinciding with the "Concrete Decks" phase of construction for Phase 3. A receptor height of 3 feet (1 meter) was used to represent the breathing height of infants and children at the daycare. The construction health risk analysis was conducted in the same manner as described above for the off-site MEI.

Project Operational Traffic, Generators, and Cooling Towers

The project operational traffic, generator, and cooling tower impacts were conducted in the same manner as described above for the off-site MEI. However, the exposure length from risks associated with the generator were assumed to be five years instead of 30 years since children at the daycare would no longer be there after age five.

Highways, Local Roadways, & Haul Route

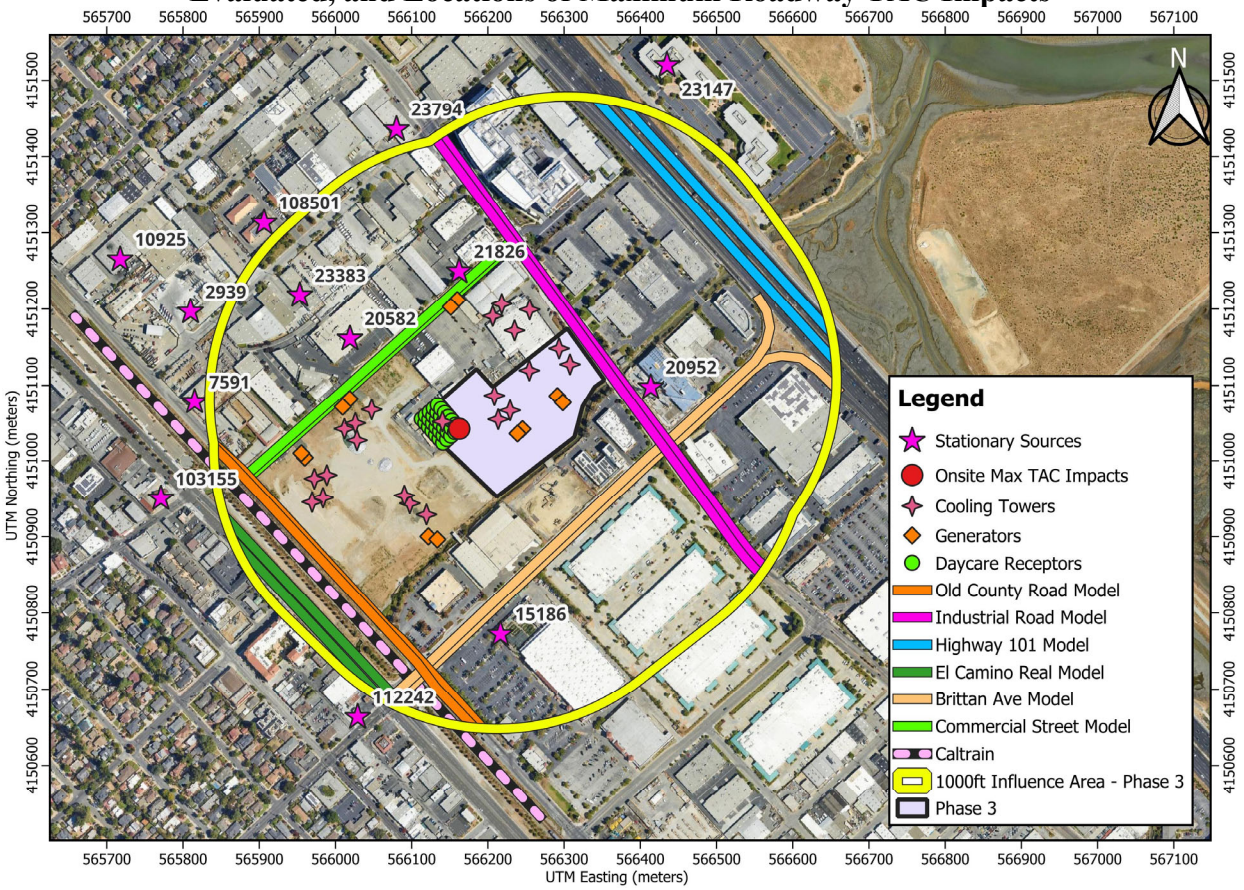
The highway, roadway, and haul route analysis for the project daycare was conducted in the same manner as described above for the off-site MEI. However, year 2024 (Phase 2 construction year) emission factors, instead of 2021, 2024, and 2026 (each phases' construction year), were conservatively assumed as being representative of future conditions when new sensitive receptors would occupy the possible daycare. The project set of receptors were placed throughout the project area and were spaced every 23 feet (7 meters). The possible daycare in the project site could be constructed during Phase 2 and located centrally in the overall project site. Roadway impacts were

[49] We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself "exacerbates" such impacts.

modeled at receptor heights of 5 feet (1.5 meters) representing sensitive receptors on the first floor. The portions of each roadway included in the modeling are shown in Figure 4 along with the project site and on-site receptor locations where impacts were modeled.

Maximum increased cancer risks were calculated for the possible daycare at the project site using the maximum modeled TAC concentrations. The highest impacts from each roadway occurred at the first-floor receptor closest to each roadway. Cancer risks associated with each roadway are greatest closest to the roadway and decrease with distance from the road. The roadway's health risk impacts at the project site are shown in Table 12. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5.*

Figure 4. Phase 3 Project Site, On-Site Daycare Receptors, Roadway Segments Evaluated, and Locations of Maximum Roadway TAC Impacts



Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for the project MEIs. Table 12 shows the health risk results from the stationary sources.

Rail Line Emissions

In addition to assessing rail line impacts at the project construction MEI location, potential health impacts from the rail line at the proposed on-site project daycare facility were evaluated. The daycare facility would be about 780 feet northeast of the rail lines. If provided, the daycare facility would be operational in 2028 and would accommodate children 6 months – 5 years of age. The daycare was assumed to operate weekdays from 8 A.M. to 5 P.M. Potential cancer risks were calculated assuming a 5-year exposure period. Dispersion modeling for the daycare was conducted in the same manner as described above for the MEI modeling. A receptor height of 1.0 meter was used to represent the breathing height of the children at the daycare.

Cumulative Health Risk at Project Daycare

Health risk impacts from the combined sources upon the project site are reported in Table 12. The TAC sources are compared against the BAAQMD single-source threshold and then combined and compared against the BAAQMD cumulative-source threshold. As shown, the maximum cancer risk from project construction exceeds the BAAQMD single-source significance threshold. However, the cumulative cancer risk never exceeds the BAAQMD cumulative-source threshold. The maximum annual $PM_{2.5}$ concentration and HI do not exceed their respective BAAQMD single-source or cumulative-source significance threshold.

Table 12. Impacts from Combined Sources to Project Daycare Receptors

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Single-Source Risk				
Project Construction (Phase 3)	Unmitigated	**85.64**	0.20	0.04
	Mitigated	**34.98**	0.09	0.01
	Mitigated + MERV16	7.00	0.02	<0.01
Phase 3 Grading Haul Trips		1.02	0.01	<0.01
Project Operational Trips		0.92	<0.04	<0.01
Project Operational Generators		0.33	<0.01	<0.01
Project Cooling Towers		-	0.04	-
BAAQMD Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	*Unmitigated*	***Yes***	*No*	*No*
	Mitigated	***Yes***	*No*	*No*
	Mitigated + MERV16	*No*	*No*	*No*
Cumulative-Source Risk				
Highway 101, ADT 204,880		0.88	0.02	<0.01
El Camino Real, ADT 35,754		0.25	0.01	<0.01
Brittan Ave, ADT 21,400		0.28	0.01	<0.01
Industrial Road, ADT 21,400		0.25	0.01	<0.01
Old County Road, ADT 11,330		0.12	<0.01	<0.01
Caltrain		0.63	<0.01	<0.01
CEMEX Construction Materials Pacific, LLC (Facility ID #2939, Ready-Mix Concrete Manufacturing), MEI at 1000+ feet		0.36	0.15	0.01
Garden Supply (Facility ID #7591, Wood Working Operation – Exempt), MEI at 980 feet		<0.01	0.02	<0.01
Royalite Manufacturing Inc. (Facility ID #10925, Metal Coating Operation), MEI at 1000+ feet		<0.01	<0.01	<0.01
The Home Depot (Store #0628) (Facility ID #15186, Generator), MEI at 835 feet		0.55	<0.01	<0.01
Nxedge San Carlos (Facility ID #20582, Generator, Boilers, Colvent Cleaning Operations), MEI at 490 feet		0.27	0.02	<0.01
City of San Carlos (Facility ID #20952, Generator), MEI at 770 ft		<0.01	<0.01	<0.01
Sutro BioPharma (Facility ID #21826, Generator), MEI at 580 ft		1.55	<0.01	<0.01
Grove Construction (Facility ID #23383, Sub-slab Vapor Mitigation System), MEI at 680 feet		0.04	<0.01	<0.01
Caliber Collision Center (Facility ID #23794, Auto Body Coating Operation), MEI at 1000+ feet		<0.01	<0.01	<0.01
Nielsen Automotive Inc (Facility ID #103155, Gas Dispensing Facility), MEI at 1000+ feet		0.17	<0.01	<0.01
City of San Carlos – Corporation Yard (Facility ID #108501, Gas Dispensing Facility), MEI at 1000+ feet		0.14	<0.01	<0.01
Brittan Shell (Facility ID #112242, Gas Dispensing Facility), MEI at 1000+ feet		0.69	<0.01	<0.01
Hudson Pacific Properties (Facility ID #23147, Generator), MEI at 1000+ feet		0.08	<0.01	<0.01
Cumulative Total	Unmitigated	<94.21	<0.56	<0.25
	Mitigated	<43.55	<0.46	<0.20
	Mitigated + MERV16	<15.57	<0.46	<0.20
BAAQMD Cumulative Source Threshold		***>100***	***>0.8***	***>10.0***
Exceed Threshold?	*Unmitigated*	*No*	*No*	*No*
	Mitigated	*No*	*No*	*No*
	Mitigated + MERV16	*No*	*No*	*No*

Recommended Design Features to Reduce Project Receptor Exposure

Filtration in ventilation systems at the project site would be recommended to reduce the level of harmful pollutants to below the significant thresholds. The significant exposure for new project receptors is judged by the increased cancer risk. Exposure to cancer risk from Phase 3 construction of the project is above the BAAQMD single-source significance thresholds. Reducing particulate matter exposure would reduce both annual $PM_{2.5}$ exposures and cancer risk.

The following recommended design features would minimize long-term increased cancer risk for new project daycare children:

1. Install air filtration for Building 7. Air filtration devices shall be rated MERV16 or higher. To ensure adequate health protection to sensitive receptors (i.e., residents), this ventilation system, whether mechanical or passive, shall filter all fresh air that would be circulated into the dwelling units.

2. The ventilation system shall be designed to keep the building at positive pressure when doors and windows are closed to reduce the intrusion of unfiltered outside air into the building.

3. As part of implementing this measure, an ongoing maintenance plan for the buildings' heating, ventilation, and air conditioning (HVAC) air filtration system shall be required that includes regular filter replacement.

4. Ensure that the use agreement and other property documents: (1) require cleaning, maintenance, and monitoring of the affected buildings for air flow leaks, (2) include assurance that new owners or tenants are provided information on the ventilation system, and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.

Effectiveness of Recommended Design Features

A properly installed and operated ventilation system with MERV16 would achieve an 90-percent reduction for small particulates.[50] The overall effectiveness calculations take into account the amount of time spent outdoors and away from home. Assuming that the filtration system is 90-percent effective, and the individual is being exposed to indoor filtered air about 90-percent of the time while at the daycare, then the overall effectiveness of a MERV16 filtration system would be about 80-percent for DPM. For Phase 3 construction, this would reduce the cancer risk to 7.00 per

[50] Bay Area Air Quality Management District (2016). Appendix B: Best Practices to Reduce Exposure to Local Air Pollution, *Planning Healthy Places A Guidebook for Addressing Local Sources of Air Pollutants in Community Planning* (p. 38). http://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf?la=en

million. With this recommended design feature, impacts from Phase 3 construction would be below the BAAQMD single-source thresholds.

Impact AIR-3: Create objectionable odors affecting a substantial number of people?

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off-site by resulting in confirmed odor complaints.

Conclusion AIR-3

The project would not include any sources of significant odors that would cause complaints from surrounding uses. In addition, the typical wind flow in the area is from the west toward the east (see Figure 1); therefore, any localized odors produced by the Project would typically be transported away from sensitive uses.

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.

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2022, total gross nationwide GHG emissions were 5,215.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[51] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission

[51] United States Environmental Protection Agency, 2022. *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2020*. February. Web: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

inventory on an annual basis where the latest inventory includes 2000 through 2020 emissions.[52] In 2020, GHG emissions from statewide emitting activities were 369.2 MMT CO_2e. The 2020 emissions have decreased by 25 percent since peak levels in 2004 and are 35.3 MMT CO_2e lower than 2019 emissions level and almost 62 MMT CO_2e below the State's 2020 GHG limit of 431 MMT CO_2e. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT CO_2e per person to 9.3 MT CO_2e per person in 2020.

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.

[52] CARB. 2022. *California Greenhouse Gas Emission for 2000 to 2020*. Web: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf

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 GHG 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*.[53] 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 has drafted a 2022 Scoping Plan Update to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2022 draft plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 or earlier.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as a driving principle.
- Incorporates the contribution of natural and working lands to the state's GHG emissions, as well as its role in achieving carbon neutrality.
- Relies on the most up to date science, including the need to deploy all viable tools, including carbon capture and sequestration as well a direct air capture.
- Evaluates multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each.

The Scoping Plan was updated in 2022 and lays out how the state can get to carbon neutrality by 2045 or earlier. It is the first Scoping Plan that adds carbon neutrality as a science-based guide and touchstone beyond statutorily established emission reduction targets.[54]

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 2022 Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and to not only obtain the statewide goals, but cost-effectively achieve carbon-neutrality by 2045 or earlier. In the 2022 Scoping Plan, CARB recommends:

- VMT per capita reduced 12% below 2019 levels by 2030 and 22% below 2019 levels by 2045.

[53] 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

[54] https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents

- 100% of Light-duty vehicle sales are zero emissions vehicles (ZEV) by 2035.
- 100% of medium duty/heavy duty vehicle sales are ZEV by 2040.
- 100% of passenger and other locomotive sales are ZEV by 2030.
- 100% of line haul locomotive sales are ZEV by 2035.
- All electric appliances in new residential and commercial building beginning 2026 (residential) and 2029 (commercial).
- 80% of residential appliance sales are electric by 2030 and 100% of residential appliance sales are electric by 2035.
- 80% of commercial appliance sales are electric by 2030 and 100% of commercial appliance sales are electric by 2045.

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.[55] 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.

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 350 - Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, 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.

Senate Bill 100 – Current Renewable Portfolio Standards

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

[55] Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

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, 2027 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.[56] 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 (2022 California Building Standard Code) was effective as of January 1, 2023.

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 (2022 Energy Code) replaced the 2019 Energy Code as of January 1,2023. 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.[57]

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations. 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 2022 standards 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, installation of EV chargers, and 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.

[56] See: https://www.dgs.ca.gov/BSC/CALGreen
[57] 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.[58] 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.

Advanced Clean Cars

The Advanced Clean Cars Program, originally adopted by CARB in 2012, was designed to bring together CARB's traditional passenger vehicle requirements to meet federal air quality standards and also support California's AB 32 goals to develop and implement programs to reduce GHG emissions back down to 1990 levels by 2020, a goal achieved in 2016 as a result of numerous emissions reduction programs.

Advanced Clean Cars II (ACC II) is phase two of the original rule. ACC II establishes a year-by-year process, starting in 2026, so all new cars and light trucks sold in California will be zero-emission vehicles by 2035, including plug-in hybrid electric vehicles. The regulation codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. Currently, 16 percent of new light-duty vehicles sold in California are zero emissions or plug-in hybrids. By 2030, 68 percent of new vehicles sold in California would be zero emissions and 100 percent by 2035.

<u>City of San Carlos 2030 General Plan</u>

The City of San Carlos General Plan 2030 includes policies and programs to reduce exposure of the City's sensitive population to exposure of air pollution, TACs, and GHG emissions. The following policies and programs are applicable to the proposed project:

Policies

Policy LU-1.2: Include in the Transportation Demand Management Ordinance a requirement that new office development over a certain size include showers and safe and secure bike racks to encourage employees to bicycle to work.

Policy LU-1.3: Adopt and regularly maintain a Climate Action Plan.

Policy EM-7.1: Take appropriate action to address climate change and reduce greenhouse gas emissions.

Policy EM-7.3: Participate in regional, State, and federal efforts to reduce greenhouse gas emissions and mitigate the impacts resulting from climate change.

Policy EM-7.6: Support greenhouse gas (GHG) emission reduction measures and climate change resiliency strategies that are cost effective and help create an

[58] California Energy Commission. 2021. F*inal Commission Report: California Building Decarbonization Assessment. Publication Number CEC-400-2021-006-CMF*.August

environmentally sustainable, livable, and equitable community. The cost of implementation to the City and private sector shall be considered prior to the adoption of any GHG reduction strategy.

City of San Carlos Climate Mitigation and Adaptative Plan (CMAP)

The City of San Carlos has adopted a new Climate Mitigation and Adaptation Plan (CMAP) to reduce greenhouse gas emissions.[59] The CMAP aims to reduce emissions 40% by 2030 and 80% by 2050 relative to 1990 levels. This CMAP is an update to the 2009 Climate Action Plan (2009 CAP) that provides updated information, an expanded set of GHG reduction strategies, climate adaptation strategies and a planning horizon out to 2050. The following goals and strategies found in the CMAP are relevant to this project:

- Goal 1: Reduce energy use
    - Strategy 1: Regional Energy Conservation and Efficiency Programs. Promote available energy efficiency and conservation opportunities, incentives, and technical assistance for businesses and residents.
- Goal 2: Transition to carbon-free energy sources
    - Strategy 4: Electrification. Transition to electricity as the primary energy source citywide.
    - Strategy 5: Building Codes. Advance electrification through local amendments to the California Building Code.
    - Strategy 7: Peninsula Clean Energy. Continue to support and promote PCE as the community's official electricity provider with a goal to provide 100 percent carbon-free renewable energy by 2025.
- Goal 4: Promote sustainable development that reduces vehicle miles traveled.
    - Strategy 17: Vehicles Miles Traveled. Reduce community-wide transportation-related emissions per resident and employee, with an emphasis on reductions from existing and new development in the city's core commercial, office, and industrial areas, including development on the east side.
- Goal 7: Become a zero-waste community
    - Strategy 27: Construction and Demolition Waste. Increase the amount of waste recycled during construction and demolition of buildings.

BAAQMD GHG Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines do not use quantified thresholds for climate change impacts. The BAAQMD's approach to developing thresholds of significance for climate impacts is to use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable. If a project would contribute its "fair share" of what is needed to achieve the State's long-term GHG reduction goals, then the lead agency can find that the project is adequately contributing to solving the problem of global climate change and

[59] City of San Carlos Climate Mitigation and Adaptation Plan, URL: https://cms3.revize.com/revize/sancarlos/Document%20Center/City%20Hall/Departments%20And%20Divisions/City%20Manager/Sustainability/Climate%20Action/CMAP%20Final.pdf

that project's impact is not significant. Using this approach, the BAAQMD identified the necessary design elements required of new land use projects and plans being built today to achieve California's long-term climate goal of carbon neutrality by 2045. If these design elements are incorporated into the design and construction of a project, then the project would contribute its portion of what is necessary to achieve California's long-term climate goals— its "fair share"— and a lead agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change. Alternatively, a project for which these design elements are not implemented could still be determined to make a less-than-significant contribution of GHG emissions by demonstrating consistency with a local GHG reduction strategy that is consistent with state guidance (14 Cal. Code Regs. § 15183.5(b)).[60] Using this approach, the BAAQMD recommends the following thresholds, under which a project would have a less than significant impact on climate change if it meets either (A) or (B), as follows:

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).

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

[60] BAAQMD CEQA Guidelines, Climate Impacts from Greenhouse Gas Emissions, Project Level, pp. 3-5–3-6, available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?rev=a976830cce0c4a6bb624b020f72d25b3&sc_lang=en.

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 and the City's Climate Action Plan.

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. The modeling includes a reduction of 7 percent mobile emissions due to the increase in EV vehicles above the default assumptions in CalEEMod/EMFAC2021. This is due to the adoption of the Advanced Clean Cars II regulation as described above in the operational criteria pollutant section.[61] The EMFAC2021 emission rates used in the CalEEMod modeling do not incorporate this effect that was adopted by law in November 2022. CalEEMod output is included in *Attachment 2*.

Construction GHG Emissions

GHG emissions associated with construction were computed at 12,392 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, as defined in the Mitigation Measure AQ-1: Basic Construction Best Management Practices, to reduce GHG emissions during construction where feasible and applicable.

Operational GHG Emissions

The project would include the design elements the BAAQMD has identified as required to allow the state to meet its long-term GHG reduction targets. Specifically, the project would include the following standard requirements:

Building measures:

1. No natural gas appliance or natural gas plumbing ,
    - Conforms. The project buildings would not be connected to natural gas pipelines and would not include natural gas appliances.
2. Avoid wasteful or inefficient use of electricity,
    - Conforms. The project would replace existing, energy-inefficient buildings with energy efficient buildings. The project is designed to meet Title 24, Part 6, and CALGreen Building Standards Code (Title 24, Part 11) requirements, which ensure that the buildings are energy efficient and include features such as low-flow toilets,

[61] Advanced Clean Cars II, web: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii

appropriate insulation, efficient HVAC systems, and energy efficient lighting. In addition, the project would comply with the City's construction waste diversion requirements and the waste provider's recycling and compost programs. The project is located in an area with relatively low VMT, which reduces energy expended by employees commuting to the project by car compared to a high VMT location. In addition, the project includes a TDM plan to reduce trips made by cars and promote the use of transit and other energy efficient means of transportation (e.g., walking, biking). A full analysis of the project's impacts on energy resources is found in the Energy Chapter of the EIR, which concludes that the project will not use energy in a wasteful, inefficient, or unnecessary manner.

3. Include electric vehicle charging infrastructure that meets current Building Code CALGreen Tier 2 compliance, and
    - Conforms. The project will comply with CALGreen Tier 2 requirements for electric vehicle charging infrastructure.
4. Reduce VMT per service population by 15 percent over regional average.
    - Conforms. The San Mateo countywide average VMT rate for employment based VMT per service population is 17.0. The Project's VMT Rate for Phases 1, 2, and 3 are 14.0, 12.7, and 13.2, respectively, which corresponds to an 18%, 25%, and 22% reduction from baseline. This results in each phase of the project having a VMT per service population that is more than 15 percent below the regional average VMT.

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

The City of San Carlos has a CMAP and enforces its building codes, which aim to reduce GHG emissions. Therefore, if individual projects conform to City building Codes, they will conform with the CMAP and would not conflict with local plans, policies, or regulations applicable to GHG emissions. The proposed project would be constructed in conformance with at minimum the 2022 CalGreen and the Title 24 Building Codes, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficiency standards. Compliance with these standards ensures compliance with State and federal plans, policies, and regulations applicable to GHG emissions.

Conclusion GHG-1 and GHG-2

As outlined in the discussion of *Impact GHG-1* and *Impact GHG-2*, the project would conform with the BAAQMD GHG thresholds and the City's CMAP and building codes.[62] The project's GHG impacts are considered less than significant, and conformity with the new BAAQMD GHG thresholds is met.

[62] 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

Supporting Documentation

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

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant and GHG emissions. The operational outputs for 2030 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 construction health risk assessment. This includes the summary of the dispersion modeling and the cancer risk calculations for construction. 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 health risk calculations, modeling results, and health risk calculations from sources affecting the construction MEI and project site 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.[63] 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.[64] 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.[65] 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,

[63] 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.
[64] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[65] 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

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

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 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: Alexandria District - Phase 1 (B5, B6 & PG1)

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size

10.2 Phase 1 total project acres disturbed

302727 s.f. B5 office/commercial

253933 s.f. B6office/commercial

s.f. office/commercial

?? acres Open Space/Park:

514768 s.f. PG1 parking garage 1883 spaces

?? s.f. parking lot spaces

Construction Hours am to pm

Pile Driving? Y/N?

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

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

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	Annual Hours	Comments
	Abatement	**Start Date:**		**Total phase:**	**60**			**Overall Import/Export Volumes**
		End Date:						
1	Air Compressor	78	0.48	6	60	6	360	**Demolition Volume**
1	Gradal	367	0.48	4	60	4	240	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			0	0	(or total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	?_ square feet and
								?_ Hauling volume (tons)
								Any pavement demolished and hauled? ?_ tons
	Demolition	**Start Date:**		**Total phase:**	**50**			
		End Date:						
2	Air Compressor	78	0.48	8	50	8	800	
4	Concrete/Industrial Saw	81	0.73	4	50	4	800	
1	Crushing/Processing Equipment	85	0.78	6	50	6	300	
2	Excavator	158	0.38	8	50	8	800	
1	Signal Board	6	0.82	8	50	8	400	
2	Skid Steer Loaders	65	0.37	8	50	8	800	
1	Sweepers/Scrubbers	64	0.46	6	50	6	300	
	Site Utilities	**Start Date:**	**10/4/2021**	**Total phase:**	**170**			
		End Date:	**5/27/2022**					**Soil Hauling Volume**
1	Excavators	158	0.38	8	170	8	1360	Export volume = ?_cubic yards?
1	Sweeper/Scrubbers	64	0.46	4	90	2.117647059	360	Import volume = ?_cubic yards?
1	Trencher	78	0.5	6	90	3.176470588	540	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Grade Side	**Start Date:**	**10/4/2021**	**Total phase:**	**85**			
		End Date:	**1/28/2022**					
1	Excavators	158	0.38	6	85	6	510	
1	Rubber Tired Dozers	247	0.4	6	85	6	510	
4	Scrapers	367	0.48	6	85	6	2040	
2	Signal Boards	6	0.82	8	85	8	1360	
2	Tractors/Loaders/Backhoes	97	0.37	8	85	8	1360	
	Other Equipment?							
	Drill Displacement Pile	**Start Date:**	**12/16/2021**	**Total phase:**	**120**			**Cement Trucks? _?_ Total Round-Trips**
		End Date:	**5/20/2022**					
1	Bore/Drill Rigs	221	0.29	6	120	6	720	Electric? (Y/N) Otherwise assumed diesel
1	Rubber Tired Dozers	247	0.4	6	120	6	720	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel
1	Signal Boards	6	0.74	8	120	8	960	Or temporary line power? (Y/N)
1	Sweepers/Scrubbers	64	0.46	4	60	2	240	
1	Gradal	367	0.45	4	60	2	240	
	Other Equipment?							
	Dewatering	**Start Date:**	**2/7/2022**	**Total phase:**	**4**			
		End Date:	**2/10/2022**					
1	Bore/Drill Rigs	221	0.29	8	4	8	32	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Shoring and Excavation	**Start Date:**	**2/7/2022**	**Total phase:**	**35**			
		Start Date:	**3/25/2022**					
1	Bore/Drill Rigs	221	0.29	8	35	8	280	
2	Excavators	158	0.38	8	35	8	560	**Asphalt? ___ cubic yards or ____ round trips?**
1	Gradal	367	0.45	4	22	2.514285714	88	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Concrete/Rebar/Waterproofing	**Start Date:**	**4/4/2022**	**Total phase:**	**60**			
		Start Date:	**6/24/2022**					
1	Cranes	231	0.29	6	60	6	360	
4	Concrete Pumps	84	0.74	12	60	12	2880	
1	Skid Steer Loaders	65	0.37	8	60	8	480	
1	Sweepers/Scrubbers	64	0.46	12	60	12	720	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Structural Steel	**Start Date:**	**6/13/2022**	**Total phase:**	**135**			
		Start Date:	**12/16/2022**					
3	Aerial Lifts	62	0.31	8	90	5.333333333	2160	
2	Cranes	231	0.29	8	135	8	2160	
4	Generator Sets	84	0.74	8	80	4.740740741	2560	
2	Signal Boards	6	0.74	8	135	8	2160	
1	Sweepers/Scrubbers	64	0.46	4	60	1.777777778	240	
2	Gradal Forklift	367	0.45	6	135	6	1620	
4	Welders	46	0.45	8	135	8	4320	
	Other Equipment?							
	Concrete Decks	**Start Date:**	**10/17/2022**	**Total phase:**	**125**			
		Start Date:	**4/7/2023**					
4	Concrete/Industrial Saws	81	0.73	5	125	5	2500	
2	Concrete Pumps	84	0.74	8	90	5.76	1440	
2	Signal Boards	6	0.74	8	125	8	2000	
2	Gradal Forklift	367	0.45	6	125	6	1500	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Fireproofing	**Start Date:**	**1/16/2023**	**Total phase:**	**125**			
		Start Date:	**7/7/2023**					
1	Forklifts	89	0.2	4	125	4	500	
1	Other General Industrial Equipment	88	0.34	8	100	6.4	800	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Roofing	**Start Date:**	**5/8/2023**	**Total phase:**	**50**			
		Start Date:	**7/14/2023**					
1	Cranes	231	0.29	6	6	0.72	36	
1	Other Construction Equipment	172	0.42	6	50	6	300	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Exterior Skin	**Start Date:**	**2/6/2023**	**Total phase:**	**165**			
		Start Date:	**9/22/2023**					
4	Aerial Lifts	62	0.31	8	165	8	5280	
1	Cranes	231	0.29	8	70	3.393939394	560	
1	Gradal Forklift	367	0.45	6	70	2.545454545	420	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Framing/Drywall	**Start Date:**	**6/12/2023**	**Total phase:**	**25**			
		Start Date:	**7/14/2023**					
1	Cranes	231	0.29	8	20	6.4	160	
1	Sweepers/Scrubbers	64	0.46	8	25	8	200	
1	Gradal Forklift	367	0.45	6	12	2.88	72	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Elevators	**Start Date:**	**6/19/2023**	**Total phase:**	**50**			
		Start Date:	**8/25/2023**					
1	Sweepers/Scrubbers	64	0.46	8	25	4	200	
1	Gradal Forklift	367	0.45	8	4	0.64	32	
2	Welders	46	0.45	8	50	8	800	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	MEP	**Start Date:**	**5/1/2023**	**Total phase:**	**25**			
		Start Date:	**6/2/2023**					
1	Cranes	231	0.29	8	20	6.4	160	
1	Sweepers/Scrubbers	64	0.46	8	25	8	200	
1	Gradal Forklift	367	0.45	8	8	2.56	64	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Other Interior Finishes	**Start Date:**	**6/28/2023**	**Total phase:**	**50**			
		Start Date:	**9/1/2023**					
2	Cement and Mortar Mixers	9	0.56	8	50	6	600	
1	Sweepers/Scrubbers	64	0.46	8	25	4	200	
1	Gradal Forklift	367	0.45	8	12	1.62	96	
		80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Landscaping and Hardscape	**Start Date:**	**4/24/2023**	**Total phase:**	**160**			
		Start Date:	**12/1/2023**					
1	Pavers	132	0.42	8	35	1.75	280	
1	Pressure Washers	13	0.3	8	10	0.5	80	
1	Concrete Pumps	84	0.74	8	40	2	320	
1	Tractors/Loaders/Backhoes	97	0.37	8	160	8	1280	
1	Gradal Forklift	367	0.45	4	20	0.5	80	
	Other Equipment?					0		
	Startup & Commissioning	**Start Date:**	**10/23/2023**	**Total phase:**	**10**			
		Start Date:	**11/3/2023**					
1	Gradal Forklift	367	0.45	4	10	4	40	
	Pavers	130	0.42			0	0	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	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: Alexandria District - Phase 2 (B1, B4, B7 & PG2)

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size

8.74 Phase 2 total project acres disturbed

260420 s.f. B1 office/commercial

231549 s.f. B4 office/commercial

10263 s.f. B7 Daycare

?? acres Open Space/Park:

504487 s.f. PG2 parking garage — 1779 spaces

?? s.f. parking lot — spaces

Construction Hours am to pm

Pile Driving? Y/N?

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

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

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	Annual Hours	Comments
	Abatement	**Start Date:**	**1/1/2024**	**Total phase:**	**60**			**Overall Import/Export Volumes**
		End Date:	**3/22/2024**					
1	Air Compressor	78	0.48	8	60	8	360	**Demolition Volume**
1	Gradal	367	0.48	4	60	4	240	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			0	0	(or total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	?_ square feet and
								?_ Hauling volume (tons)
								Any pavement demolished and hauled? ?_ tons
	Demolition	**Start Date:**	**3/23/2024**	**Total phase:**	**50**			
		End Date:	**5/31/2024**					
2	Air Compressor	78	0.48	8	50	8	800	
4	Concrete/Industrial Saw	81	0.73	4	50	4	800	
1	Crushing/Processing Equipment	85	0.78	6	50	6	300	
2	Excavator	158	0.38	8	50	8	800	
1	Signal Board	6	0.82	8	50	8	400	
2	Skid Steer Loaders	65	0.37	8	50	8	800	
1	Sweepers/Scrubbers	64	0.46	6	50	6	300	
	Site Utilities	**Start Date:**	**6/1/2024**	**Total phase:**	**170**	10/4/2021	971	
		End Date:	**1/24/2025**					**Soil Hauling Volume**
1	Excavators	158	0.38	8	170	8	1360	Export volume = ?_cubic yards?
1	Sweeper/Scrubbers	64	0.46	4	90	2.11764706	360	Import volume = ?_cubic yards?
1	Trencher	78	0.5	6	90	3.17647059	540	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Grade Side	**Start Date:**	**6/1/2024**	**Total phase:**	**85**			
		End Date:	**9/27/2024**					
1	Excavators	158	0.38	6	85	6	510	
1	Rubber Tired Dozers	247	0.4	6	85	6	510	
4	Scrapers	367	0.48	6	85	6	2040	
2	Signal Boards	6	0.82	8	85	8	1360	
2	Tractors/Loaders/Backhoes	97	0.37	8	85	8	1360	
	Other Equipment?							
	Drill Displacement Pile	**Start Date:**	**8/13/2024**	**Total phase:**	**120**			**Cement Trucks? _?_ Total Round-Trips**
		End Date:	**1/27/2025**					
1	Bore/Drill Rigs	221	0.29	6	120	6	720	Electric? (Y/N) Otherwise assumed diesel
1	Rubber Tired Dozers	247	0.4	6	120	6	720	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel
1	Signal Boards	6	0.74	8	120	8	960	Or temporary line power? (Y/N)
1	Sweepers/Scrubbers	64	0.46	4	60	2	240	
1	Gradal	367	0.45	4	60	2	240	
	Other Equipment?							
	Dewatering	**Start Date:**	**10/5/2024**	**Total phase:**	**4**			
		End Date:	**10/10/2024**					
1	Bore/Drill Rigs	221	0.29	8	4	8	32	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Shoring and Excavation	**Start Date:**	**10/5/2024**	**Total phase:**	**35**			
		Start Date:	**11/22/2024**					
1	Bore/Drill Rigs	221	0.29	8	35	8	280	
2	Excavators	158	0.38	8	35	8	560	Asphalt? ___ cubic yards or ____ round trips?
1	Gradal	367	0.45	4	22	2.51428571	88	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Concrete/Rebar/Waterproofing	**Start Date:**	**11/30/2024**	**Total phase:**	**60**			
		Start Date:	**2/21/2025**					
1	Cranes	231	0.29	6	60	6	360	
4	Concrete Pumps	84	0.74	12	60	12	2880	
1	Skid Steer Loaders	65	0.37	8	60	8	480	
1	Sweepers/Scrubbers	64	0.46	12	60	12	720	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Structural Steel	**Start Date:**	**2/8/2025**	**Total phase:**	**135**			
		Start Date:	**8/15/2025**					
3	Aerial Lifts	62	0.31	8	90	5.33333333	2160	
2	Cranes	231	0.29	8	135	8	2160	
4	Generator Sets	84	0.74	8	80	4.74074074	2560	
2	Signal Boards	6	0.74	8	135	8	2160	
1	Sweepers/Scrubbers	64	0.46	4	60	1.77777778	240	
2	Gradal Forklift	367	0.45	6	135	6	1620	
4	Welders	46	0.45	8	135	8	4320	
	Other Equipment?							
	Concrete Decks	**Start Date:**	**6/14/2025**	**Total phase:**	**125**			
		Start Date:	**12/5/2025**					
4	Concrete/Industrial Saws	81	0.73	5	125	5	2500	
2	Concrete Pumps	84	0.74	8	90	5.76	1440	
2	Signal Boards	6	0.74	8	125	8	2000	
2	Gradal Forklift	367	0.45	6	125	6	1500	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Fireproofing	**Start Date:**	**9/13/2025**	**Total phase:**	**125**			
		Start Date:	**3/6/2026**					
1	Forklifts	89	0.2	4	125	4	500	
1	Other General Industrial Equipment	88	0.34	8	100	6.4	800	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Roofing	**Start Date:**	**1/3/2026**	**Total phase:**	**80**			
		Start Date:	**3/13/2026**					
1	Cranes	231	0.29	6	6	0.72	36	
1	Other Construction Equipment	172	0.42	6	50	6	300	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Exterior Skin	**Start Date:**	**10/4/2025**	**Total phase:**	**165**			
		Start Date:	**5/22/2026**					
4	Aerial Lifts	62	0.31	8	165	8	5280	
1	Cranes	231	0.29	8	70	3.39393939	560	
1	Gradal Forklift	367	0.45	6	70	2.54545455	420	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Framing/Drywall	**Start Date:**	**2/7/2026**	**Total phase:**	**25**			
		Start Date:	**3/13/2026**					
1	Cranes	231	0.29	8	20	6.4	160	
1	Sweepers/Scrubbers	64	0.46	8	25	8	200	
1	Gradal Forklift	367	0.45	6	12	2.88	72	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Elevators	**Start Date:**	**2/14/2026**	**Total phase:**	**50**			
		Start Date:	**4/24/2026**					
1	Sweepers/Scrubbers	64	0.46	8	25	4	200	
1	Gradal Forklift	367	0.45	8	4	0.64	32	
2	Welders	46	0.45	8	50	8	800	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	MEP	**Start Date:**	**12/27/2025**	**Total phase:**	**25**			
		Start Date:	**1/30/2026**					
1	Cranes	231	0.29	8	20	6.4	160	
1	Sweepers/Scrubbers	64	0.46	8	25	8	200	
1	Gradal Forklift	367	0.45	8	8	2.56	64	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Other Interior Finishes	**Start Date:**	**2/21/2026**	**Total phase:**	**90**			
		Start Date:	**5/1/2026**					
2	Cement and Mortar Mixers	9	0.56	6	90	6	600	
1	Sweepers/Scrubbers	64	0.46	8	25	4	200	
1	Gradal Forklift	367	0.45	8	12	1.92	96	
		80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Landscaping and Hardscape	**Start Date:**	**12/20/2025**	**Total phase:**	**160**			
		Start Date:	**7/31/2026**					
1	Pavers	132	0.42	8	35	1.75	280	
1	Pressure Washers	13	0.3	8	10	0.5	80	
1	Concrete Pumps	84	0.74	8	40	2	320	
1	Tractors/Loaders/Backhoes	97	0.37	8	160	8	1280	
1	Gradal Forklift	367	0.45	4	20	0.5	80	
	Other Equipment?					0		
	Startup & Commissioning	**Start Date:**	**6/20/2026**	**Total phase:**	**10**			
		Start Date:	**7/3/2026**					
1	Gradal Forklift	367	0.45	4	10	4	40	
	Pavers	130	0.42			0	0	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	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

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Alexandria District - Phase 3 (B2 & B3)

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size

6.1 Phase 3 total project acres disturbed

265367 s.f. B2 office/commercial

304116 s.f. B3 office/commercial

?? acres Open Space/Park:

s.f. PG1 parking garage ____ spaces

?? s.f. parking lot 144 spaces

Construction Hours am to pm

Pile Driving? Y/N?

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

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: ____

Fuel Type: ____

Location in project (Plans Desired if Available):

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	Annual Hours	Comments
	Abatement	**Start Date:**	**8/1/2026**	**Total phase:**	**60**			**Overall Import/Export Volumes**
		End Date:	**10/23/2026**					
1	Air Compressor	78	0.48	6	60	6	360	**Demolition Volume**
1	Gradal	367	0.48	4	60	4	240	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			0	0	(or total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	7 square feet and
								7 Hauling volume (tons)
								Any pavement demolished and hauled? 7 tons
	Demolition	**Start Date:**	**10/22/2026**	**Total phase:**	**50**			
		End Date:	**12/30/2026**					
2	Air Compressor	78	0.48	8	50	8	800	
4	Concrete/Industrial Saw	81	0.73	4	50	4	800	
1	Crushing/Processing Equipment	85	0.78	6	50	6	300	
2	Excavator	158	0.38	8	50	8	800	
1	Signal Board	6	0.82	8	50	8	400	
2	Skid Steer Loaders	65	0.37	8	50	8	800	
1	Sweepers/Scrubbers	64	0.46	6	50	6	300	
	Site Utilities	**Start Date:**	**12/31/2026**	**Total phase:**	**170**	10/4/2021	1914	
		End Date:	**8/25/2027**					**Soil Hauling Volume**
1	Excavators	158	0.38	8	170	8	1360	Export volume = 7 cubic yards?
1	Sweeper/Scrubbers	64	0.46	4	90	2.11764706	360	Import volume = 7 cubic yards?
1	Trencher	78	0.5	6	90	3.17647059	540	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Grade Side	**Start Date:**	**12/31/2026**	**Total phase:**	**85**			
		End Date:	**4/28/2027**					
1	Excavators	158	0.38	6	85	6	510	
1	Rubber Tired Dozers	247	0.4	8	85	8	510	
4	Scrapers	367	0.48	6	85	6	2040	
2	Signal Boards	6	0.82	8	85	8	1360	
2	Tractors/Loaders/Backhoes	97	0.37	8	85	8	1360	
	Other Equipment?							
	Drill Displacement Pile	**Start Date:**	**3/14/2027**	**Total phase:**	**120**			**Cement Trucks? 7 Total Round-Trips**
		End Date:	**8/27/2027**					
1	Bore/Drill Rigs	221	0.29	6	120	6	720	Electric? (Y/N) Otherwise assumed diesel
1	Rubber Tired Dozers	247	0.4	6	120	6	720	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel
1	Signal Boards	6	0.74	8	120	8	960	Or temporary line power? (Y/N)
1	Sweepers/Scrubbers	64	0.46	4	60	2	240	
1	Gradal	367	0.45	4	60	2	240	
	Other Equipment?							
	Dewatering	**Start Date:**	**5/6/2027**	**Total phase:**	**4**			
		End Date:	**5/11/2027**					
1	Bore/Drill Rigs	221	0.29	8	4	8	32	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Shoring and Excavation	**Start Date:**	**5/6/2027**	**Total phase:**	**35**			
		Start Date:	**6/23/2027**					
1	Bore/Drill Rigs	221	0.29	8	35	8	280	
2	Excavators	158	0.38	8	35	8	560	Asphalt? ___ cubic yards or ____ round trips?
1	Gradal	367	0.45	4	22	2.51428571	88	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Concrete/Rebar/Waterproofing	**Start Date:**	**7/1/2027**	**Total phase:**	**60**			
		Start Date:	**9/22/2027**					
1	Cranes	231	0.29	8	60	6	360	
4	Concrete Pumps	84	0.74	12	60	12	2880	
1	Skid Steer Loaders	65	0.37	8	60	8	480	
1	Sweepers/Scrubbers	64	0.46	12	60	12	720	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Structural Steel	**Start Date:**	**9/9/2027**	**Total phase:**	**135**			
		Start Date:	**3/15/2028**					
3	Aerial Lifts	62	0.31	8	90	5.33333333	2160	
2	Cranes	231	0.29	8	135	8	2160	
4	Generator Sets	84	0.74	8	80	4.74074074	2560	
2	Signal Boards	6	0.74	8	135	8	2160	
1	Sweepers/Scrubbers	64	0.46	4	60	1.77777778	240	
2	Gradal Forklift	367	0.45	6	135	6	1620	
4	Welders	46	0.45	8	135	8	4320	
	Other Equipment?							
	Concrete Decks	**Start Date:**	**1/13/2028**	**Total phase:**	**125**			
		Start Date:	**7/5/2028**					
4	Concrete/Industrial Saws	81	0.73	5	125	5	2500	
2	Concrete Pumps	84	0.74	8	90	5.76	1440	
2	Signal Boards	6	0.74	8	125	8	2000	
2	Gradal Forklift	367	0.45	6	125	6	1500	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Fireproofing	**Start Date:**	**4/13/2028**	**Total phase:**	**125**			
		Start Date:	**10/4/2028**					
1	Forklifts	89	0.2	4	125	4	500	
1	Other General Industrial Equipment	88	0.34	8	100	6.4	800	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Roofing	**Start Date:**	**8/31/2028**	**Total phase:**	**50**			
		Start Date:	**11/8/2028**					
1	Cranes	231	0.29	6	6	0.72	36	
1	Other Construction Equipment	172	0.42	6	50	6	300	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Exterior Skin	**Start Date:**	**5/4/2028**	**Total phase:**	**165**			
		Start Date:	**12/20/2028**					
4	Aerial Lifts	62	0.31	8	165	8	5280	
1	Cranes	231	0.29	8	70	3.39393939	560	
1	Gradal Forklift	367	0.45	6	70	2.54545455	420	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Framing/Drywall	**Start Date:**	**9/7/2028**	**Total phase:**	**25**			
		Start Date:	**10/11/2028**					
1	Cranes	231	0.29	8	20	6.4	160	
1	Sweepers/Scrubbers	64	0.46	8	25	8	200	
1	Gradal Forklift	367	0.45	6	12	2.88	72	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Elevators	**Start Date:**	**9/14/2028**	**Total phase:**	**50**			
		Start Date:	**11/22/2028**					
1	Sweepers/Scrubbers	64	0.46	8	25	4	200	
1	Gradal Forklift	367	0.45	8	4	0.64	32	
2	Welders	46	0.45	8	50	8	800	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	MEP	**Start Date:**	**7/27/2028**	**Total phase:**	**25**			
		Start Date:	**8/30/2028**					
1	Cranes	231	0.29	8	20	6.4	160	
1	Sweepers/Scrubbers	64	0.46	8	25	8	200	
1	Gradal Forklift	367	0.45	8	8	2.56	64	
	Rollers	80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Other Interior Finishes	**Start Date:**	**9/21/2028**	**Total phase:**	**90**			
		Start Date:	**11/29/2028**					
2	Cement and Mortar Mixers	9	0.56	6	50	6	600	
1	Sweepers/Scrubbers	64	0.46	8	25	4	200	
1	Gradal Forklift	367	0.45	8	12	1.92	96	
		80	0.38			0	0	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Landscaping and Hardscape	**Start Date:**	**7/20/2028**	**Total phase:**	**160**			
		Start Date:	**2/28/2029**					
1	Pavers	132	0.42	8	35	1.75	280	
1	Pressure Washers	13	0.3	8	10	0.5	80	
1	Concrete Pumps	84	0.74	8	40	2	320	
1	Tractors/Loaders/Backhoes	97	0.37	8	160	8	1280	
1	Gradal Forklift	367	0.45	4	20	0.5	80	
	Other Equipment?					0		
	Startup & Commissioning	**Start Date:**	**1/18/2029**	**Total phase:**	**10**			
		Start Date:	**1/31/2029**					
1	Gradal Forklift	367	0.45	4	10	4	40	
	Pavers	130	0.42			0	0	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	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

Construction Criteria Air Pollutants - Phase 1 Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2021	0.16	1.76	0.08	0.07	215.24	
2022	0.45	3.95	0.19	0.18	638.20	
2023	6.18	1.44	0.07	0.06	260.43	
EMFAC						
2021	0.06	0.64	0.03	0.01	386.11	
2022	0.23	2.37	0.12	0.05	1559.72	
2023	0.23	2.13	0.12	0.05	1604.78	
Total Construction Emissions by Year						
2021	0.23	2.40	0.11	0.08	601.35	
2022	0.68	6.33	0.31	0.23	2197.92	
2023	6.40	3.57	0.18	0.11	1865.21	
	Total Construction Emissions					
Tons	7.32	12.29	0.60	0.43	4664.48	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2021	7.09	74.87	3.35	2.65		**64**
2022	5.25	48.48	2.34	1.76		**261**
2023	53.37	29.76	1.54	0.93		**240**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	65.70	153.11	7.23	5.34	0.00	
Average	25.90	43.52	2.11	1.51	0.00	565.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	4.14	1.74	3.22	0.83		
	Existing Use Emissions					
Total	0.00	0.00	0.00	0.00		
	Net Annual Operational Emissions					
Tons/year	4.14	1.74	3.22	0.83		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	22.71	9.52	17.65	4.52		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants - Phase 1 Mitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2021	0.04	0.74	0.00	0.00	215.24	
2022	0.13	2.76	0.03	0.03	638.20	
2023	6.08	1.26	0.02	0.02	260.43	
EMFAC						
2021	0.06	0.64	0.03	0.01	386.11	
2022	0.23	2.37	0.12	0.05	1559.72	
2023	0.23	2.13	0.12	0.05	1604.78	
Total Construction Emissions by Year						
2021	0.10	1.37	0.03	0.02	601.35	
2022	0.36	5.14	0.15	0.08	2197.92	
2023	6.31	3.39	0.14	0.07	1865.21	
	Total Construction Emissions					
Tons	6.77	9.90	0.32	0.17	4664.48	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2021	3.23	42.85	1.07	0.55		**64**
2022	2.79	39.36	1.15	0.63		**261**
2023	52.56	28.25	1.17	0.59		**240**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	58.58	110.45	3.38	1.77	0.00	
Average	23.98	35.03	1.15	0.60	0.00	565.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	4.14	1.74	3.22	0.83		
	Existing Use Emissions					
Total	0.00	0.00	0.00	0.00		
	Net Annual Operational Emissions					
Tons/year	4.14	1.74	3.22	0.83		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	22.71	9.52	17.65	4.52		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants - Phase 2 Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2024	0.31	2.81	0.13	0.12	535.63	
2025	1.37	2.75	0.11	0.11	546.27	
2026	4.57	1.13	0.05	0.04	240.13	
EMFAC						
2024	0.15	1.63	0.09	0.04	1227.50	
2025	0.13	1.46	0.09	0.04	1173.39	
2026	0.11	1.36	0.08	0.03	1080.47	
Total Construction Emissions by Year						
2024	0.45	4.45	0.22	0.16	1763.12	
2025	1.50	4.21	0.20	0.14	1719.66	
2026	4.68	2.49	0.13	0.08	1320.60	
	Total Construction Emissions					
Tons	6.64	11.14	0.55	0.38	4803.38	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2024	3.47	33.96	1.67	1.19		**262**
2025	11.49	32.24	1.54	1.10		**261**
2026	36.01	19.13	1.01	0.61		**260**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	50.97	85.33	4.22	2.89	0.00	
Average	16.95	28.46	1.41	0.97	0.00	783.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	4.73	2.59	3.88	1.03		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	4.73	2.59	3.88	1.03		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	25.94	14.17	21.27	5.62		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants - Phase 2 Mitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2024	0.10	2.03	0.02	0.02	535.63	
2025	0.22	2.50	0.03	0.03	546.27	
2026	0.47	0.70	0.01	0.01	240.13	
EMFAC						
2024	0.15	1.63	0.09	0.04	1227.50	
2025	0.13	1.46	0.09	0.04	1173.39	
2026	0.11	1.36	0.08	0.03	1080.47	
Total Construction Emissions by Year						
2024	0.25	3.66	0.11	0.05	1763.12	
2025	0.35	3.95	0.12	0.07	1719.66	
2026	0.59	2.06	0.10	0.05	1320.60	
	Total Construction Emissions					
Tons	1.19	9.68	0.33	0.17	4803.38	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2024	1.90	27.97	0.83	0.41		**262**
2025	2.68	30.29	0.96	0.54		**261**
2026	4.52	15.86	0.76	0.38		**260**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	9.10	74.11	2.55	1.33	0.00	
Average	3.03	24.72	0.85	0.44	0.00	783.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	4.67	1.99	3.83	0.98		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	4.67	1.99	3.83	0.98		
Threshold -	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	25.57	10.88	21.01	5.37		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants Phase 3 - Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2026	0.06	0.44	0.02	0.02	105.47	
2027	0.38	3.39	0.14	0.13	683.68	
2028 + 2029	7.31	2.12	0.08	0.08	427.32	
EMFAC						
2026	0.04	0.52	0.03	0.01	398.94	
2027	0.09	1.21	0.08	0.03	965.12	
2028 + 2029	0.08	1.03	0.07	0.03	847.74	
Total Construction Emissions by Phase						
2026	0.10	0.95	0.05	0.03	504.41	
2027	0.47	4.60	0.22	0.17	1648.79	
2028 + 2029	7.39	3.15	0.15	0.11	1275.05	
	Total Construction Emissions					
Tons	7.96	8.71	0.43	0.31	3428.26	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2026	0.34	3.38	0.18	0.11		**565**
2027	1.20	11.76	0.56	0.42		**783**
2028 + 2029	21.93	9.35	0.46	0.32		**674**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	23.47	24.48	1.20	0.86	0.00	
Average	7.87	8.61	0.42	0.30	0.00	2022.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants Phase 3 - Mitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2026	0.02	0.48	0.00	0.00	105.47	
2027	0.13	2.72	0.03	0.03	683.68	
2028 + 2029	0.80	2.02	0.03	0.03	427.32	
EMFAC						
2026	0.04	0.52	0.03	0.01	398.94	
2027	0.09	1.21	0.08	0.03	965.12	
2028 + 2029	0.08	1.03	0.07	0.03	847.74	
Total Construction Emissions by Phase						
2026	0.06	1.00	0.04	0.02	504.41	
2027	0.23	3.93	0.11	0.06	1648.79	
2028 + 2029	0.88	3.05	0.10	0.06	1275.05	
	Total Construction Emissions					
Tons	1.16	7.98	0.24	0.14	3428.26	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2026	0.21	3.53	0.13	0.06		**565**
2027	0.58	10.05	0.27	0.15		**783**
2028 + 2029	2.61	9.06	0.30	0.17		**674**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	3.40	22.63	0.70	0.39	0.00	
Average	1.15	7.89	0.24	0.14	0.00	2022.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants - Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
Phase 1	6.79	7.15	0.33	0.32	1113.86	
Phase 2	6.19	6.25	0.26	0.25	1216.55	
Phase 3	7.75	5.95	0.25	0.23	1216.46	
EMFAC						
Phase 1	0.52	5.14	0.26	0.11	3550.61	
Phase 2	0.35	3.94	0.24	0.10	3082.42	
Phase 3	0.21	2.76	0.18	0.07	2211.79	
Total Construction Emissions by Phase						
Phase 1	7.32	12.29	0.60	0.43	4664.48	
Phase 2	6.54	10.19	0.50	0.35	4298.97	
Phase 3	7.96	8.71	0.43	0.31	3428.26	
	Total Construction Emissions					
Tons	21.81	31.19	1.52	1.08	12391.70	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
Phase 1	25.90	43.52	2.11	1.51		**565**
Phase 2	16.70	26.03	1.28	0.88		**783**
Phase 3	23.61	25.84	1.26	0.91		**674**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	66.21	95.38	4.66	3.30	0.00	
Average	21.57	30.85	1.51	1.07	0.00	2022.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants - Unmitigated						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Mobile	4.22	3.89	10.96	2.78		
Mobile - EV Reduction	-0.34	-0.19	-	-		
Area	7.88	0.00	0.00	0.00		
Stationary	1.16	0.57	0.02	0.02		
Energy	0.00	0.00	0.00	0.00		
Water	0.00	0.00	0.00	0.00		
Waste	0.00	0.00	0.00	0.00		
Total	12.92	4.26	10.98	2.80		
	Existing Use Emissions					
Total	1.67	0.90	1.19	0.31		
	Net Annual Operational Emissions					
Tons/year	11.24	3.37	9.80	2.49		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	61.61	18.44	53.68	13.63		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Construction Criteria Air Pollutants - Mitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
Phase 1	6.25	4.75	0.06	0.06	1113.86	
Phase 2	1.25	5.22	0.06	0.06	1216.55	
Phase 3	0.96	5.22	0.06	0.06	1216.46	
EMFAC						
Phase 1	0.52	5.14	0.26	0.11	3550.61	
Phase 2	0.35	3.94	0.24	0.10	3082.42	
Phase 3	0.21	2.76	0.18	0.07	2211.79	
Total Construction Emissions by Phase						
Phase 1	6.77	9.90	0.32	0.17	4664.47	
Phase 2	1.60	9.16	0.30	0.16	4298.97	
Phase 3	1.16	7.98	0.24	0.14	3428.25	
	Total Construction Emissions					
Tons	9.54	27.04	0.87	0.47	12391.70	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
Phase 1	23.98	35.03	1.15	0.60		**565**
Phase 2	4.09	23.40	0.77	0.41		**783**
Phase 3	3.45	23.68	0.72	0.41		**674**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	31.52	82.12	2.64	1.42	0.00	
Average	9.43	26.75	0.86	0.46	0.00	2022.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants - Mitigated						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Mobile	4.22	3.89	10.96	2.78		
Mobile - EV Reduction	-0.34	-0.19	-	-		
Area	6.44	0.00	0.00	0.00		
Stationary	1.16	0.57	0.02	0.02		
Energy	0.00	0.00	0.00	0.00		
Water	0.00	0.00	0.00	0.00		
Waste	0.00	0.00	0.00	0.00		
Cooling Towers	-	-	0.04	0.02		
Total	11.48	4.26	11.02	2.82		
	Existing Use Emissions					
Total	1.67	0.90	1.19	0.31		
	Net Annual Operational Emissions					
Tons/year	9.81	3.37	9.84	2.51		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	53.73	18.44	53.90	13.76		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Traffic Consultant Trip Gen All Phases					CalEEMod Default		
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Research and Development	1734.532	19531	15625	***9.01***	11.26	1.9	1.11
TDM Reduction		*-3906*			*Rev*	***1.52***	***0.89***
Reduction		*0*					
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Day-Care Center	9.443	450	198	***20.97***	47.62	6.22	5.84
Diverted Link		*-252*			*Rev*	***2.74***	***2.57***
Reduction		*0*					
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Retail	4.5	3430	3088	***686.22***	762.28	1084.17	901.17
Internal Capture		*-342*			*Rev*	***976.00***	***811.25***
Reduction		*0*					
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Community Center	2.1	61	61	***29.05***	28.82		
TDM Reduction		*0*			*Rev*	***0.00***	***0.00***
Reduction		*0*					

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	557.51	1000sqft	10.20	557,510.00	0
Unenclosed Parking with Elevator	1,450.00	Space	0.00	499,350.00	0
City Park	2.00	Acre	0.00	87,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2024
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 - Unit amount, acreage, square footage provided by applicant

Construction Phase - Phase lengths and start date provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

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Off-road Equipment - Equipment info provided by applicant

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Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment information provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Trips and VMT - All trips entered into EMFAC2021

Grading - From C2.06 in site plan. Net 78,157cy fill for whole site. Assuming entire site quantity for each phase for conservatism.

Vehicle Trips - City park land use type used to represent green space at site.

Vehicle Emission Factors - Emission factors from EMFAC2021

Energy Use - Reach code requires project be all electric

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - All equipment t4i, BMP

Fleet Mix - Fleet mix from EMFAC2021

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF - Teir 4 BACT

Consumer Products - Consumer ROG based adjustment made based on HAZUS square footage and San Mateo Population.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
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
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
tblConstructionPhase	NumDays	20.00	165.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	300.00	25.00
tblConstructionPhase	NumDays	300.00	50.00
tblConstructionPhase	NumDays	300.00	25.00
tblConstructionPhase	NumDays	300.00	50.00
tblConstructionPhase	NumDays	300.00	60.00
tblConstructionPhase	NumDays	300.00	135.00
tblConstructionPhase	NumDays	300.00	125.00
tblConstructionPhase	NumDays	300.00	125.00
tblConstructionPhase	NumDays	30.00	85.00
tblConstructionPhase	NumDays	20.00	160.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	170.00
tblConstructionPhase	NumDays	10.00	4.00
tblConsumerProducts	ROG_EF	2.14E-05	1.95E-05
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	T24E	1.08	6.26
tblEnergyUse	T24NG	17.67	0.00
tblFleetMix	HHD	2.1250e-003	7.1350e-003

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tblFleetMix	HHD	2.1250e-003	7.1350e-003
tblFleetMix	HHD	2.1250e-003	7.1350e-003
tblFleetMix	LDA	0.47	0.46
tblFleetMix	LDA	0.47	0.46
tblFleetMix	LDA	0.47	0.46
tblFleetMix	LDT1	0.07	0.04
tblFleetMix	LDT1	0.07	0.04
tblFleetMix	LDT1	0.07	0.04
tblFleetMix	LDT2	0.23	0.27
tblFleetMix	LDT2	0.23	0.27
tblFleetMix	LDT2	0.23	0.27
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	6.2330e-003	7.0020e-003
tblFleetMix	LHD2	6.2330e-003	7.0020e-003
tblFleetMix	LHD2	6.2330e-003	7.0020e-003
tblFleetMix	MCY	0.03	4.1570e-003
tblFleetMix	MCY	0.03	4.1570e-003
tblFleetMix	MCY	0.03	4.1570e-003
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MH	2.6010e-003	6.2200e-004
tblFleetMix	MH	2.6010e-003	6.2200e-004
tblFleetMix	MH	2.6010e-003	6.2200e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01

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tblFleetMix	OBUS	1.4690e-003	4.8800e-003
tblFleetMix	OBUS	1.4690e-003	4.8800e-003
tblFleetMix	OBUS	1.4690e-003	4.8800e-003
tblFleetMix	SBUS	4.3400e-004	4.0800e-004
tblFleetMix	SBUS	4.3400e-004	4.0800e-004
tblFleetMix	SBUS	4.3400e-004	4.0800e-004
tblFleetMix	UBUS	5.9100e-004	1.8440e-003
tblFleetMix	UBUS	5.9100e-004	1.8440e-003
tblFleetMix	UBUS	5.9100e-004	1.8440e-003
tblGrading	MaterialExported	0.00	24,714.00
tblGrading	MaterialImported	0.00	102,871.00
tblLandUse	LandUseSquareFeet	580,000.00	499,350.00
tblLandUse	LotAcreage	12.80	10.20
tblLandUse	LotAcreage	13.05	0.00
tblLandUse	LotAcreage	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.40

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tblOffRoadEquipment	UsageHours	7.00	0.70
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.90
tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,012.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,682.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	15,948.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00

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tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	VendorTripNumber	187.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	85.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	85.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblTripsAndVMT	WorkerTripNumber	425.00	0.00
tblVehicleEF	HHD	0.03	0.27
tblVehicleEF	HHD	0.17	0.26
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	5.25	4.67
tblVehicleEF	HHD	0.93	1.67

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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	944.14	782.39
tblVehicleEF	HHD	1,618.63	1,785.76
tblVehicleEF	HHD	0.26	0.29
tblVehicleEF	HHD	0.15	0.13
tblVehicleEF	HHD	0.26	0.29
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	5.30	4.03
tblVehicleEF	HHD	3.11	2.65
tblVehicleEF	HHD	2.39	2.71
tblVehicleEF	HHD	3.9570e-003	3.2460e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.0000e-006	5.0000e-006
tblVehicleEF	HHD	3.7860e-003	3.1010e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7110e-003	8.6250e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.0000e-006	4.0000e-006
tblVehicleEF	HHD	4.0000e-006	7.3600e-004
tblVehicleEF	HHD	1.8800e-004	2.1400e-004
tblVehicleEF	HHD	0.36	0.29
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7000e-005	1.6760e-003
tblVehicleEF	HHD	1.4000e-005	3.0000e-006
tblVehicleEF	HHD	8.4280e-003	6.5500e-003
tblVehicleEF	HHD	0.01	0.02

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tblVehicleEF	HHD	4.0000e-006	7.3600e-004
tblVehicleEF	HHD	1.8800e-004	2.1400e-004
tblVehicleEF	HHD	0.42	0.59
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.21	0.30
tblVehicleEF	HHD	8.7000e-005	1.6760e-003
tblVehicleEF	HHD	1.6000e-005	3.0000e-006
tblVehicleEF	LDA	1.5500e-003	1.8160e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.49	0.57
tblVehicleEF	LDA	2.11	2.92
tblVehicleEF	LDA	231.09	246.71
tblVehicleEF	LDA	49.25	64.18
tblVehicleEF	LDA	3.7240e-003	3.8360e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.16	0.23
tblVehicleEF	LDA	0.04	6.4230e-003
tblVehicleEF	LDA	1.2500e-003	1.1640e-003
tblVehicleEF	LDA	1.6730e-003	1.9790e-003
tblVehicleEF	LDA	0.02	2.2480e-003
tblVehicleEF	LDA	1.1510e-003	1.0720e-003
tblVehicleEF	LDA	1.5380e-003	1.8200e-003
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.8840e-003	7.0240e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.19	0.29

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tblVehicleEF	LDA	2.2860e-003	2.4390e-003
tblVehicleEF	LDA	4.8700e-004	6.3400e-004
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	8.5530e-003	0.01
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.21	0.32
tblVehicleEF	LDT1	2.4400e-003	4.7080e-003
tblVehicleEF	LDT1	0.05	0.09
tblVehicleEF	LDT1	0.64	1.09
tblVehicleEF	LDT1	2.21	4.62
tblVehicleEF	LDT1	271.39	318.31
tblVehicleEF	LDT1	57.89	83.21
tblVehicleEF	LDT1	4.5100e-003	7.5870e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.18	0.34
tblVehicleEF	LDT1	0.04	8.0370e-003
tblVehicleEF	LDT1	1.5140e-003	1.6830e-003
tblVehicleEF	LDT1	1.9900e-003	2.6340e-003
tblVehicleEF	LDT1	0.02	2.8130e-003
tblVehicleEF	LDT1	1.3930e-003	1.5480e-003
tblVehicleEF	LDT1	1.8300e-003	2.4220e-003
tblVehicleEF	LDT1	0.04	0.46
tblVehicleEF	LDT1	0.10	0.13
tblVehicleEF	LDT1	0.04	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.06	0.38

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tblVehicleEF	LDT1	0.22	0.46
tblVehicleEF	LDT1	2.6860e-003	3.1470e-003
tblVehicleEF	LDT1	5.7300e-004	8.2300e-004
tblVehicleEF	LDT1	0.04	0.46
tblVehicleEF	LDT1	0.10	0.13
tblVehicleEF	LDT1	0.04	0.00
tblVehicleEF	LDT1	0.01	0.03
tblVehicleEF	LDT1	0.06	0.38
tblVehicleEF	LDT1	0.24	0.51
tblVehicleEF	LDT2	2.1380e-003	2.1100e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.59	0.64
tblVehicleEF	LDT2	2.61	3.21
tblVehicleEF	LDT2	285.14	327.47
tblVehicleEF	LDT2	61.30	83.04
tblVehicleEF	LDT2	4.5260e-003	4.6930e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.21	0.27
tblVehicleEF	LDT2	0.04	7.6930e-003
tblVehicleEF	LDT2	1.3550e-003	1.2500e-003
tblVehicleEF	LDT2	1.7390e-003	2.0170e-003
tblVehicleEF	LDT2	0.02	2.6930e-003
tblVehicleEF	LDT2	1.2470e-003	1.1500e-003
tblVehicleEF	LDT2	1.5990e-003	1.8550e-003
tblVehicleEF	LDT2	0.03	0.19
tblVehicleEF	LDT2	0.08	0.06
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	8.2710e-003	8.0290e-003

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tblVehicleEF	LDT2	0.05	0.15
tblVehicleEF	LDT2	0.24	0.32
tblVehicleEF	LDT2	2.8210e-003	3.2370e-003
tblVehicleEF	LDT2	6.0700e-004	8.2100e-004
tblVehicleEF	LDT2	0.03	0.19
tblVehicleEF	LDT2	0.08	0.06
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.15
tblVehicleEF	LDT2	0.26	0.35
tblVehicleEF	LHD1	4.8690e-003	5.3230e-003
tblVehicleEF	LHD1	6.2330e-003	5.7120e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.20
tblVehicleEF	LHD1	0.54	0.73
tblVehicleEF	LHD1	1.00	2.42
tblVehicleEF	LHD1	8.66	8.42
tblVehicleEF	LHD1	766.61	763.92
tblVehicleEF	LHD1	11.40	19.31
tblVehicleEF	LHD1	7.2200e-004	5.7700e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.39	0.40
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	8.3600e-004	6.1000e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.7710e-003	9.2850e-003
tblVehicleEF	LHD1	7.3860e-003	9.2260e-003

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tblVehicleEF	LHD1	2.3100e-004	1.8200e-004
tblVehicleEF	LHD1	8.0000e-004	5.8400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4430e-003	2.3210e-003
tblVehicleEF	LHD1	7.0200e-003	8.7890e-003
tblVehicleEF	LHD1	2.1200e-004	1.6700e-004
tblVehicleEF	LHD1	1.1350e-003	0.09
tblVehicleEF	LHD1	0.05	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.2100e-004	0.00
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.15	0.13
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD1	8.4000e-005	8.2000e-005
tblVehicleEF	LHD1	7.4860e-003	7.4700e-003
tblVehicleEF	LHD1	1.1300e-004	1.9100e-004
tblVehicleEF	LHD1	1.1350e-003	0.09
tblVehicleEF	LHD1	0.05	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	7.2100e-004	0.00
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	0.15	0.13
tblVehicleEF	LHD1	0.06	0.11
tblVehicleEF	LHD2	3.0260e-003	3.1050e-003
tblVehicleEF	LHD2	5.6680e-003	5.3750e-003
tblVehicleEF	LHD2	6.5810e-003	0.01
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.47	0.46
tblVehicleEF	LHD2	0.59	1.37

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tblVehicleEF	LHD2	13.42	13.16
tblVehicleEF	LHD2	742.79	804.88
tblVehicleEF	LHD2	7.75	10.45
tblVehicleEF	LHD2	1.6540e-003	1.5600e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.08	0.07
tblVehicleEF	LHD2	0.43	0.53
tblVehicleEF	LHD2	0.16	0.24
tblVehicleEF	LHD2	1.3960e-003	1.3090e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.2500e-004	9.1000e-005
tblVehicleEF	LHD2	1.3360e-003	1.2520e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6840e-003	2.6480e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.1500e-004	8.4000e-005
tblVehicleEF	LHD2	6.1800e-004	0.05
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.9800e-004	0.00
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.03	0.06
tblVehicleEF	LHD2	1.2800e-004	1.2600e-004
tblVehicleEF	LHD2	7.1760e-003	7.7600e-003
tblVehicleEF	LHD2	7.7000e-005	1.0300e-004

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tblVehicleEF	LHD2	6.1800e-004	0.05
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.9800e-004	0.00
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.33	0.15
tblVehicleEF	MCY	0.26	0.17
tblVehicleEF	MCY	18.49	11.05
tblVehicleEF	MCY	9.24	7.75
tblVehicleEF	MCY	212.87	186.93
tblVehicleEF	MCY	60.07	46.09
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.5490e-003
tblVehicleEF	MCY	1.15	0.52
tblVehicleEF	MCY	0.27	0.13
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.1340e-003	2.0120e-003
tblVehicleEF	MCY	3.1040e-003	3.7080e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9920e-003	1.8810e-003
tblVehicleEF	MCY	2.9110e-003	3.4820e-003
tblVehicleEF	MCY	0.61	3.28
tblVehicleEF	MCY	0.52	3.55
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.18	0.93
tblVehicleEF	MCY	0.42	3.71
tblVehicleEF	MCY	1.94	1.28

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tblVehicleEF	MCY	2.1060e-003	1.8480e-003
tblVehicleEF	MCY	5.9400e-004	4.5600e-004
tblVehicleEF	MCY	0.61	0.08
tblVehicleEF	MCY	0.52	3.55
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.72	1.13
tblVehicleEF	MCY	0.42	3.71
tblVehicleEF	MCY	2.11	1.39
tblVehicleEF	MDV	2.2040e-003	2.4060e-003
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.58	0.66
tblVehicleEF	MDV	2.74	3.34
tblVehicleEF	MDV	342.68	392.51
tblVehicleEF	MDV	72.68	98.90
tblVehicleEF	MDV	5.9130e-003	5.7940e-003
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.04	0.06
tblVehicleEF	MDV	0.23	0.32
tblVehicleEF	MDV	0.04	7.7260e-003
tblVehicleEF	MDV	1.3830e-003	1.2700e-003
tblVehicleEF	MDV	1.7680e-003	2.0650e-003
tblVehicleEF	MDV	0.02	2.7040e-003
tblVehicleEF	MDV	1.2750e-003	1.1700e-003
tblVehicleEF	MDV	1.6260e-003	1.8980e-003
tblVehicleEF	MDV	0.04	0.22
tblVehicleEF	MDV	0.08	0.06
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	8.7520e-003	9.6890e-003
tblVehicleEF	MDV	0.05	0.17

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tblVehicleEF	MDV	0.27	0.38
tblVehicleEF	MDV	3.3860e-003	3.8780e-003
tblVehicleEF	MDV	7.1900e-004	9.7800e-004
tblVehicleEF	MDV	0.04	0.22
tblVehicleEF	MDV	0.08	0.06
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.05	0.17
tblVehicleEF	MDV	0.30	0.42
tblVehicleEF	MH	6.1010e-003	9.3180e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.49	0.86
tblVehicleEF	MH	1.85	2.40
tblVehicleEF	MH	1,447.76	1,669.61
tblVehicleEF	MH	17.04	21.87
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.95	1.21
tblVehicleEF	MH	0.23	0.28
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	2.4900e-004	3.1100e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2780e-003	3.3220e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	2.2900e-004	2.8600e-004
tblVehicleEF	MH	0.28	24.03
tblVehicleEF	MH	0.03	6.71

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tblVehicleEF	MH	0.12	0.00
tblVehicleEF	MH	0.04	0.06
tblVehicleEF	MH	6.6690e-003	0.16
tblVehicleEF	MH	0.08	0.11
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.6900e-004	2.1600e-004
tblVehicleEF	MH	0.28	24.03
tblVehicleEF	MH	0.03	6.71
tblVehicleEF	MH	0.12	0.00
tblVehicleEF	MH	0.05	0.08
tblVehicleEF	MH	6.6690e-003	0.16
tblVehicleEF	MH	0.09	0.12
tblVehicleEF	MHD	3.9480e-003	0.01
tblVehicleEF	MHD	1.6080e-003	0.01
tblVehicleEF	MHD	9.9120e-003	0.01
tblVehicleEF	MHD	0.39	0.67
tblVehicleEF	MHD	0.22	0.40
tblVehicleEF	MHD	1.12	1.33
tblVehicleEF	MHD	63.54	150.10
tblVehicleEF	MHD	1,063.89	1,267.25
tblVehicleEF	MHD	9.92	10.76
tblVehicleEF	MHD	9.0030e-003	0.02
tblVehicleEF	MHD	0.13	0.15
tblVehicleEF	MHD	8.2440e-003	8.1870e-003
tblVehicleEF	MHD	0.35	0.86
tblVehicleEF	MHD	1.29	1.10
tblVehicleEF	MHD	1.65	1.32
tblVehicleEF	MHD	2.8000e-004	2.2030e-003
tblVehicleEF	MHD	0.13	0.05

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tblVehicleEF	MHD	6.1520e-003	0.01
tblVehicleEF	MHD	1.2100e-004	1.3500e-004
tblVehicleEF	MHD	2.6800e-004	2.1070e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	5.8790e-003	0.01
tblVehicleEF	MHD	1.1200e-004	1.2400e-004
tblVehicleEF	MHD	2.8800e-004	0.03
tblVehicleEF	MHD	0.02	7.1450e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	1.8700e-004	0.00
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.02	0.06
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	6.0300e-004	1.3930e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	9.8000e-005	1.0600e-004
tblVehicleEF	MHD	2.8800e-004	0.03
tblVehicleEF	MHD	0.02	7.1450e-003
tblVehicleEF	MHD	0.03	0.05
tblVehicleEF	MHD	1.8700e-004	0.00
tblVehicleEF	MHD	0.02	0.06
tblVehicleEF	MHD	0.02	0.06
tblVehicleEF	MHD	0.06	0.07
tblVehicleEF	OBUS	6.6710e-003	6.4170e-003
tblVehicleEF	OBUS	2.8040e-003	6.4430e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.61	0.48
tblVehicleEF	OBUS	0.34	0.23
tblVehicleEF	OBUS	1.52	1.10

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tblVehicleEF	OBUS	102.35	89.99
tblVehicleEF	OBUS	1,307.86	1,316.74
tblVehicleEF	OBUS	13.17	9.70
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.14	0.17
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.43	0.40
tblVehicleEF	OBUS	1.48	0.74
tblVehicleEF	OBUS	1.21	1.13
tblVehicleEF	OBUS	1.3800e-004	2.3700e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.5690e-003	8.4550e-003
tblVehicleEF	OBUS	1.4400e-004	1.0000e-004
tblVehicleEF	OBUS	1.3200e-004	2.2700e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.2290e-003	8.0830e-003
tblVehicleEF	OBUS	1.3200e-004	9.2000e-005
tblVehicleEF	OBUS	7.8300e-004	0.03
tblVehicleEF	OBUS	0.01	8.3470e-003
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	4.0400e-004	0.00
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.7100e-004	8.4900e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.3000e-004	9.6000e-005
tblVehicleEF	OBUS	7.8300e-004	0.03
tblVehicleEF	OBUS	0.01	8.3470e-003

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tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	4.0400e-004	0.00
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.08	0.06
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	9.3480e-003	0.08
tblVehicleEF	SBUS	9.5380e-003	8.3560e-003
tblVehicleEF	SBUS	3.67	2.26
tblVehicleEF	SBUS	0.86	1.50
tblVehicleEF	SBUS	1.46	1.21
tblVehicleEF	SBUS	365.45	203.37
tblVehicleEF	SBUS	990.47	973.16
tblVehicleEF	SBUS	7.49	5.80
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	7.4410e-003	5.4090e-003
tblVehicleEF	SBUS	3.26	1.43
tblVehicleEF	SBUS	4.48	2.76
tblVehicleEF	SBUS	0.70	0.46
tblVehicleEF	SBUS	3.8180e-003	1.5180e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	1.1800e-004	7.5000e-005
tblVehicleEF	SBUS	3.6530e-003	1.4510e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.5480e-003	2.5240e-003
tblVehicleEF	SBUS	0.02	0.01

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tblVehicleEF	SBUS	1.0800e-004	6.9000e-005
tblVehicleEF	SBUS	6.1300e-004	0.05
tblVehicleEF	SBUS	7.7700e-003	0.01
tblVehicleEF	SBUS	0.44	0.26
tblVehicleEF	SBUS	2.9600e-004	0.00
tblVehicleEF	SBUS	0.10	0.08
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	3.4950e-003	1.8640e-003
tblVehicleEF	SBUS	9.5210e-003	9.1220e-003
tblVehicleEF	SBUS	7.4000e-005	5.7000e-005
tblVehicleEF	SBUS	6.1300e-004	0.05
tblVehicleEF	SBUS	7.7700e-003	0.01
tblVehicleEF	SBUS	0.64	0.41
tblVehicleEF	SBUS	2.9600e-004	0.00
tblVehicleEF	SBUS	0.12	0.18
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	UBUS	1.52	0.55
tblVehicleEF	UBUS	0.01	6.4790e-003
tblVehicleEF	UBUS	11.42	6.29
tblVehicleEF	UBUS	0.83	0.86
tblVehicleEF	UBUS	1,603.68	1,063.17
tblVehicleEF	UBUS	9.21	5.61
tblVehicleEF	UBUS	0.26	0.16
tblVehicleEF	UBUS	7.2150e-003	9.6970e-003
tblVehicleEF	UBUS	0.69	0.25
tblVehicleEF	UBUS	0.10	0.07
tblVehicleEF	UBUS	0.08	0.14

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tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	4.9940e-003	4.6870e-003
tblVehicleEF	UBUS	5.3000e-005	2.2000e-005
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	7.8010e-003	0.01
tblVehicleEF	UBUS	4.7760e-003	4.4790e-003
tblVehicleEF	UBUS	4.9000e-005	2.1000e-005
tblVehicleEF	UBUS	5.3200e-004	0.02
tblVehicleEF	UBUS	9.6610e-003	6.9710e-003
tblVehicleEF	UBUS	4.1000e-004	0.00
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	3.6080e-003	0.01
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	0.01	8.5370e-003
tblVehicleEF	UBUS	9.1000e-005	5.5000e-005
tblVehicleEF	UBUS	5.3200e-004	0.02
tblVehicleEF	UBUS	9.6610e-003	6.9710e-003
tblVehicleEF	UBUS	4.1000e-004	0.00
tblVehicleEF	UBUS	1.55	0.61
tblVehicleEF	UBUS	3.6080e-003	0.01
tblVehicleEF	UBUS	0.07	0.03
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.90	1.52
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	11.26	9.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

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

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

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					
2021	0.1632	1.7599	1.2411	2.4400e-003	0.3061	0.0777	0.3838	0.0982	0.0716	0.1698	0.0000	213.5285	213.5285	0.0683	0.0000	215.2365
2022	0.4498	3.9520	3.9064	7.4500e-003	0.2045	0.1886	0.3931	0.0423	0.1806	0.2229	0.0000	635.1021	635.1021	0.1240	0.0000	638.2013
2023	6.1785	1.4385	1.8171	3.0100e-003	0.0000	0.0661	0.0661	0.0000	0.0628	0.0628	0.0000	259.0108	259.0108	0.0567	0.0000	260.4270
Maximum	**6.1785**	**3.9520**	**3.9064**	**7.4500e-003**	**0.3061**	**0.1886**	**0.3931**	**0.0982**	**0.1806**	**0.2229**	**0.0000**	**635.1021**	**635.1021**	**0.1240**	**0.0000**	**638.2013**

Mitigated Construction

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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
Year	tons/yr										MT/yr					
2021	0.0397	0.7353	1.4023	2.4400e-003	0.1378	4.5100e-003	0.1423	0.0442	4.5100e-003	0.0487	0.0000	213.5282	213.5282	0.0683	0.0000	215.2363
2022	0.1299	2.7613	4.4667	7.4500e-003	0.0920	0.0333	0.1253	0.0191	0.0333	0.0524	0.0000	635.1013	635.1013	0.1240	0.0000	638.2006
2023	6.0809	1.2573	1.9845	3.0100e-003	0.0000	0.0212	0.0212	0.0000	0.0212	0.0212	0.0000	259.0105	259.0105	0.0567	0.0000	260.4267
Maximum	**6.0809**	**2.7613**	**4.4667**	**7.4500e-003**	**0.1378**	**0.0333**	**0.1423**	**0.0442**	**0.0333**	**0.0524**	**0.0000**	**635.1013**	**635.1013**	**0.1240**	**0.0000**	**638.2006**

	ROG	NOx	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	**7.97**	**33.52**	**-12.76**	**0.00**	**55.00**	**82.26**	**65.74**	**55.00**	**81.28**	**73.17**	**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	**10-4-2021**	**1-3-2022**	1.9354	0.7847
2	**1-4-2022**	**4-3-2022**	0.9571	0.5492
3	**4-4-2022**	**7-3-2022**	1.2602	0.8512
4	**7-4-2022**	**10-3-2022**	0.9184	0.6310
5	**10-4-2022**	**1-3-2023**	1.1691	0.8039
6	**1-4-2023**	**4-3-2023**	1.3409	1.2156
7	**4-4-2023**	**7-3-2023**	2.0343	1.9407
8	**7-4-2023**	**9-30-2023**	4.0187	3.9804
		Highest	4.0187	3.9804

2.2 Overall Operational

Unmitigated 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	2.3200	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0359	0.0359	9.0000e-005	0.0000	0.0383
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	1.4394	1.5481	11.9047	0.0366	3.1894	0.0235	3.2129	0.7959	0.0219	0.8178	0.0000	3,390.5178	3,390.5178	0.1490	0.1492	3,438.7041
Stationary	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Waste						0.0000	0.0000		0.0000	0.0000	8.6352	0.0000	8.6352	0.5103	0.0000	21.3934
Water						0.0000	0.0000		0.0000	0.0000	96.9856	0.0000	96.9856	0.3338	0.2109	168.1827
Total	**4.1445**	**1.7371**	**12.9052**	**0.0385**	**3.1894**	**0.0311**	**3.2205**	**0.7959**	**0.0295**	**0.8254**	**105.6208**	**3,569.2999**	**3,674.9207**	**1.0183**	**0.3601**	**3,807.6913**

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	2.3200	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0359	0.0359	9.0000e-005	0.0000	0.0383
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	1.4394	1.5481	11.9047	0.0366	3.1894	0.0235	3.2129	0.7959	0.0219	0.8178	0.0000	3,390.5178	3,390.5178	0.1490	0.1492	3,438.7041
Stationary	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727

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Waste						0.0000	0.0000		0.0000	0.0000	8.6352	0.0000	8.6352	0.5103	0.0000	21.3934
Water						0.0000	0.0000		0.0000	0.0000	96.9856	0.0000	96.9856	0.3338	0.2109	168.1827
Total	**4.1445**	**1.7371**	**12.9052**	**0.0385**	**3.1894**	**0.0311**	**3.2205**	**0.7959**	**0.0295**	**0.8254**	**105.6208**	**3,569.2999**	**3,674.9207**	**1.0183**	**0.3601**	**3,807.6913**

	ROG	NOx	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	Site Utilities	Site Preparation	10/4/2021	5/27/2022	5	170	
2	Grade Side	Grading	10/4/2021	1/28/2022	5	85	
3	Drill Displacement Piles	Trenching	12/6/2021	5/20/2022	5	120	
4	Dewatering	Site Preparation	2/7/2022	2/10/2022	5	4	
5	Shoring and Excavation	Trenching	2/7/2022	3/25/2022	5	35	
6	Concrete/Rebar/Waterproofing	Building Construction	4/4/2022	6/24/2022	5	60	
7	Structural Steel	Building Construction	6/13/2022	12/16/2022	5	135	
8	Concrete Decks	Building Construction	10/17/2022	4/7/2023	5	125	
9	Fireproofing	Building Construction	1/16/2023	7/7/2023	5	125	
10	Exterior Skin	Architectural Coating	2/6/2023	9/22/2023	5	165	
11	Landscaping and Hardscape	Paving	4/24/2023	12/1/2023	5	160	
12	MEP	Building Construction	5/1/2023	6/2/2023	5	25	
13	Roofing	Building Construction	5/8/2023	7/14/2023	5	50	
14	Framing/Drywall	Building Construction	6/12/2023	7/14/2023	5	25	

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15	Elevators	Building Construction	6/19/2023	8/25/2023	5	50
16	Other Interior Finishes	Architectural Coating	6/26/2023	9/1/2023	5	50
17	Startup & Commissioning	Paving	10/23/2023	11/3/2023	5	10

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 286.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 836,265; Non-Residential Outdoor: 278,755; Striped Parking Area: 29,961

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Utilities	Excavators	1	8.00	158	0.38
Site Utilities	Sweepers/Scrubbers	1	2.10	64	0.46
Site Utilities	Trenchers	1	3.20	78	0.50
Grade Side	Excavators	1	6.00	158	0.38
Grade Side	Rubber Tired Dozers	1	6.00	247	0.40
Grade Side	Scrapers	4	6.00	367	0.48
Grade Side	Signal Boards	2	8.00	6	0.82
Grade Side	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drill Displacement Piles	Bore/Drill Rigs	1	6.00	221	0.50
Drill Displacement Piles	Forklifts	1	2.00	89	0.20
Drill Displacement Piles	Rubber Tired Dozers	1	6.00	247	0.40
Drill Displacement Piles	Signal Boards	1	8.00	6	0.82
Drill Displacement Piles	Sweepers/Scrubbers	1	2.00	64	0.46
Dewatering	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Excavators	2	8.00	158	0.38
Shoring and Excavation	Forklifts	1	2.50	89	0.20

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Concrete/Rebar/Waterproofing	Cranes	1	6.00	231	0.29
Concrete/Rebar/Waterproofing	Pumps	4	12.00	84	0.74
Concrete/Rebar/Waterproofing	Skid Steer Loaders	1	8.00	65	0.37
Concrete/Rebar/Waterproofing	Sweepers/Scrubbers	1	12.00	64	0.46
Structural Steel	Aerial Lifts	3	5.30	63	0.31
Structural Steel	Cranes	2	8.00	231	0.29
Structural Steel	Forklifts	2	6.00	89	0.20
Structural Steel	Generator Sets	4	4.70	84	0.74
Structural Steel	Signal Boards	2	8.00	6	0.82
Structural Steel	Sweepers/Scrubbers	1	1.80	64	0.46
Structural Steel	Welders	4	8.00	46	0.45
Concrete Decks	Concrete/Industrial Saws	4	5.00	81	0.73
Concrete Decks	Forklifts	2	6.00	89	0.20
Concrete Decks	Pumps	2	5.80	84	0.74
Concrete Decks	Signal Boards	2	8.00	6	0.82
Fireproofing	Forklifts	1	4.00	89	0.20
Fireproofing	Other General Industrial Equipment	1	6.40	88	0.34
Exterior Skin	Aerial Lifts	4	8.00	63	0.31
Exterior Skin	Cranes	1	3.40	231	0.29
Exterior Skin	Forklifts	1	2.50	89	0.20
Landscaping and Hardscape	Forklifts	1	0.50	89	0.20
Landscaping and Hardscape	Pavers	1	1.80	130	0.42
Landscaping and Hardscape	Pressure Washers	1	0.50	13	0.30
Landscaping and Hardscape	Pumps	1	2.00	84	0.74
Landscaping and Hardscape	Tractors/Loaders/Backhoes	1	8.00	97	0.37
MEP	Cranes	1	6.40	231	0.29
MEP	Forklifts	1	2.60	89	0.20
MEP	Sweepers/Scrubbers	1	8.00	64	0.46
Roofing	Cranes	1	0.70	231	0.29

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Roofing	Other Construction Equipment	1	6.00	172	0.42
Framing/Drywall	Cranes	1	6.40	231	0.29
Framing/Drywall	Forklifts	1	2.90	89	0.20
Framing/Drywall	Sweepers/Scrubbers	1	8.00	64	0.46
Elevators	Forklifts	1	0.60	89	0.20
Elevators	Sweepers/Scrubbers	1	4.00	64	0.46
Elevators	Welders	2	8.00	46	0.45
Other Interior Finishes	Cement and Mortar Mixers	2	6.00	9	0.56
Other Interior Finishes	Forklifts	1	1.90	89	0.20
Other Interior Finishes	Sweepers/Scrubbers	1	4.00	64	0.46
Startup & Commissioning	Forklifts	1	4.00	89	0.20

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
Site Utilities	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grade Side	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drill Displacement Piles	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Dewatering	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Shoring and Excavation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete/Rebar/Waterproofing	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural Steel	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Decks	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fireproofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Skin	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Hardscape	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
MEP	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Roofing	2	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

Framing/Drywall	3	0.00	0.00	0.00	10.80	7.30	20.00 LD_Mix	HDT_Mix	HHDT
Elevators	4	0.00	0.00	0.00	10.80	7.30	20.00 LD_Mix	HDT_Mix	HHDT
Other Interior Finishes	4	0.00	0.00	0.00	10.80	7.30	20.00 LD_Mix	HDT_Mix	HHDT
Startup & Commissioning	1	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 Site Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1332	0.1569	2.3000e-004		8.0000e-003	8.0000e-003		7.3600e-003	7.3600e-003	0.0000	20.5082	20.5082	6.6300e-003	0.0000	20.6740
Total	**0.0144**	**0.1332**	**0.1569**	**2.3000e-004**	**0.0000**	**8.0000e-003**	**8.0000e-003**	**0.0000**	**7.3600e-003**	**7.3600e-003**	**0.0000**	**20.5082**	**20.5082**	**6.6300e-003**	**0.0000**	**20.6740**

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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.1053	0.1768	2.3000e-004		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004	0.0000	20.5082	20.5082	6.6300e-003	0.0000	20.6740
Total	**3.5800e-003**	**0.1053**	**0.1768**	**2.3000e-004**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**20.5082**	**20.5082**	**6.6300e-003**	**0.0000**	**20.6740**

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**

3.2 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1891	0.2519	3.8000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	33.1207	33.1207	0.0107	0.0000	33.3885
Total	**0.0209**	**0.1891**	**0.2519**	**3.8000e-004**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**0.0103**	**0.0103**	**0.0000**	**33.1207**	**33.1207**	**0.0107**	**0.0000**	**33.3885**

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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7800e-003	0.1700	0.2856	3.8000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	33.1207	33.1207	0.0107	0.0000	33.3885
Total	**5.7800e-003**	**0.1700**	**0.2856**	**3.8000e-004**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**33.1207**	**33.1207**	**0.0107**	**0.0000**	**33.3885**

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**

3.3 Grade Side - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3061	0.0000	0.3061	0.0982	0.0000	0.0982	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1376	1.5100	1.0276	2.0600e-003		0.0643	0.0643		0.0592	0.0592	0.0000	179.8441	179.8441	0.0575	0.0000	181.2822
Total	**0.1376**	**1.5100**	**1.0276**	**2.0600e-003**	**0.3061**	**0.0643**	**0.3704**	**0.0982**	**0.0592**	**0.1574**	**0.0000**	**179.8441**	**179.8441**	**0.0575**	**0.0000**	**181.2822**

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					
Fugitive Dust					0.1378	0.0000	0.1378	0.0442	0.0000	0.0442	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0337	0.5891	1.1458	2.0600e-003		3.3000e-003	3.3000e-003		3.3000e-003	3.3000e-003	0.0000	179.8439	179.8439	0.0575	0.0000	181.2820
Total	**0.0337**	**0.5891**	**1.1458**	**2.0600e-003**	**0.1378**	**3.3000e-003**	**0.1411**	**0.0442**	**3.3000e-003**	**0.0475**	**0.0000**	**179.8439**	**179.8439**	**0.0575**	**0.0000**	**181.2820**

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**

3.3 Grade Side - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2045	0.0000	0.2045	0.0423	0.0000	0.0423	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0368	0.3883	0.2933	6.3000e-004		0.0163	0.0163		0.0151	0.0151	0.0000	55.4043	55.4043	0.0177	0.0000	55.8473
Total	**0.0368**	**0.3883**	**0.2933**	**6.3000e-004**	**0.2045**	**0.0163**	**0.2208**	**0.0423**	**0.0151**	**0.0574**	**0.0000**	**55.4043**	**55.4043**	**0.0177**	**0.0000**	**55.8473**

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					
Fugitive Dust					0.0920	0.0000	0.0920	0.0191	0.0000	0.0191	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.1813	0.3526	6.3000e-004		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	55.4042	55.4042	0.0177	0.0000	55.8473
Total	**0.0104**	**0.1813**	**0.3526**	**6.3000e-004**	**0.0920**	**1.0200e-003**	**0.0930**	**0.0191**	**1.0200e-003**	**0.0201**	**0.0000**	**55.4042**	**55.4042**	**0.0177**	**0.0000**	**55.8473**

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**

3.4 Drill Displacement Piles - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0113	0.1166	0.0567	1.5000e-004		5.4100e-003	5.4100e-003		4.9900e-003	4.9900e-003	0.0000	13.1762	13.1762	4.1600e-003	0.0000	13.2803
Total	**0.0113**	**0.1166**	**0.0567**	**1.5000e-004**		**5.4100e-003**	**5.4100e-003**		**4.9900e-003**	**4.9900e-003**	**0.0000**	**13.1762**	**13.1762**	**4.1600e-003**	**0.0000**	**13.2803**

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	2.4600e-003	0.0410	0.0797	1.5000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	13.1762	13.1762	4.1600e-003	0.0000	13.2803
Total	**2.4600e-003**	**0.0410**	**0.0797**	**1.5000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**13.1762**	**13.1762**	**4.1600e-003**	**0.0000**	**13.2803**

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**

3.4 Drill Displacement Piles - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0465	0.4685	0.2643	7.6000e-004		0.0215	0.0215		0.0198	0.0198	0.0000	65.9212	65.9212	0.0208	0.0000	66.4419
Total	**0.0465**	**0.4685**	**0.2643**	**7.6000e-004**		**0.0215**	**0.0215**		**0.0198**	**0.0198**	**0.0000**	**65.9212**	**65.9212**	**0.0208**	**0.0000**	**66.4419**

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	0.0123	0.2048	0.3985	7.6000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003	0.0000	65.9211	65.9211	0.0208	0.0000	66.4418
Total	**0.0123**	**0.2048**	**0.3985**	**7.6000e-004**		**1.8700e-003**	**1.8700e-003**		**1.8700e-003**	**1.8700e-003**	**0.0000**	**65.9211**	**65.9211**	**0.0208**	**0.0000**	**66.4418**

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**

3.5 Dewatering - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	4.5300e-003	4.0800e-003	2.0000e-005		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	1.6575	1.6575	5.4000e-004	0.0000	1.6709
Total	**4.5000e-004**	**4.5300e-003**	**4.0800e-003**	**2.0000e-005**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.6575**	**1.6575**	**5.4000e-004**	**0.0000**	**1.6709**

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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	5.0300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.6575	1.6575	5.4000e-004	0.0000	1.6709
Total	**3.1000e-004**	**5.0300e-003**	**0.0101**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.6575**	**1.6575**	**5.4000e-004**	**0.0000**	**1.6709**

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**

3.6 Shoring and Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0116	0.1076	0.1560	3.5000e-004		4.6600e-003	4.6600e-003		4.2900e-003	4.2900e-003	0.0000	31.1141	31.1141	0.0101	0.0000	31.3656
Total	**0.0116**	**0.1076**	**0.1560**	**3.5000e-004**		**4.6600e-003**	**4.6600e-003**		**4.2900e-003**	**4.2900e-003**	**0.0000**	**31.1141**	**31.1141**	**0.0101**	**0.0000**	**31.3656**

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**

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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 On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.1400e-003	0.1274	0.2322	3.5000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.1140	31.1140	0.0101	0.0000	31.3656
Total	**5.1400e-003**	**0.1274**	**0.2322**	**3.5000e-004**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**31.1140**	**31.1140**	**0.0101**	**0.0000**	**31.3656**

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**

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

3.7 Concrete/Rebar/Waterproofing - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0825	0.7375	0.8422	1.4900e-003		0.0384	0.0384		0.0376	0.0376	0.0000	128.6475	128.6475	0.0139	0.0000	128.9949
Total	**0.0825**	**0.7375**	**0.8422**	**1.4900e-003**		**0.0384**	**0.0384**		**0.0376**	**0.0376**	**0.0000**	**128.6475**	**128.6475**	**0.0139**	**0.0000**	**128.9949**

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					
Off-Road	0.0282	0.5555	0.9328	1.4900e-003		5.8300e-003	5.8300e-003		5.8300e-003	5.8300e-003	0.0000	128.6473	128.6473	0.0139	0.0000	128.9947
Total	**0.0282**	**0.5555**	**0.9328**	**1.4900e-003**		**5.8300e-003**	**5.8300e-003**		**5.8300e-003**	**5.8300e-003**	**0.0000**	**128.6473**	**128.6473**	**0.0139**	**0.0000**	**128.9947**

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**

3.8 Structural Steel - 2022

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	0.2044	1.6822	1.6298	3.0200e-003		0.0762	0.0762		0.0735	0.0735	0.0000	251.7353	251.7353	0.0450	0.0000	252.8603
Total	**0.2044**	**1.6822**	**1.6298**	**3.0200e-003**		**0.0762**	**0.0762**		**0.0735**	**0.0735**	**0.0000**	**251.7353**	**251.7353**	**0.0450**	**0.0000**	**252.8603**

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	0.0537	1.2427	1.7801	3.0200e-003		0.0216	0.0216		0.0216	0.0216	0.0000	251.7350	251.7350	0.0450	0.0000	252.8600
Total	**0.0537**	**1.2427**	**1.7801**	**3.0200e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**	**0.0000**	**251.7350**	**251.7350**	**0.0450**	**0.0000**	**252.8600**

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**

3.9 Concrete Decks - 2022

Unmitigated Construction On-Site

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

20-124 Alexandria Phase 1 - 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	0.0465	0.3742	0.4649	7.9000e-004		0.0202	0.0202		0.0200	0.0200	0.0000	67.5016	67.5016	5.2100e-003	0.0000	67.6319
Total	**0.0465**	**0.3742**	**0.4649**	**7.9000e-004**		**0.0202**	**0.0202**		**0.0200**	**0.0200**	**0.0000**	**67.5016**	**67.5016**	**5.2100e-003**	**0.0000**	**67.6319**

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	0.0141	0.2747	0.4749	7.9000e-004		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	67.5015	67.5015	5.2100e-003	0.0000	67.6318

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

Total	**0.0141**	**0.2747**	**0.4749**	**7.9000e-004**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**67.5015**	**67.5015**	**5.2100e-003**	**0.0000**	**67.6318**

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**

3.9 Concrete Decks - 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	0.0552	0.4414	0.5903	1.0100e-003		0.0222	0.0222		0.0219	0.0219	0.0000	85.9111	85.9111	6.2400e-003	0.0000	86.0670
Total	**0.0552**	**0.4414**	**0.5903**	**1.0100e-003**		**0.0222**	**0.0222**		**0.0219**	**0.0219**	**0.0000**	**85.9111**	**85.9111**	**6.2400e-003**	**0.0000**	**86.0670**

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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	0.0180	0.3496	0.6045	1.0100e-003		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	85.9110	85.9110	6.2400e-003	0.0000	86.0669
Total	**0.0180**	**0.3496**	**0.6045**	**1.0100e-003**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**85.9110**	**85.9110**	**6.2400e-003**	**0.0000**	**86.0669**

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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**

3.10 Fireproofing - 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	0.0113	0.1071	0.1320	1.8000e-004		6.3000e-003	6.3000e-003		5.7900e-003	5.7900e-003	0.0000	15.4465	15.4465	5.0000e-003	0.0000	15.5714
Total	**0.0113**	**0.1071**	**0.1320**	**1.8000e-004**		**6.3000e-003**	**6.3000e-003**		**5.7900e-003**	**5.7900e-003**	**0.0000**	**15.4465**	**15.4465**	**5.0000e-003**	**0.0000**	**15.5714**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 1 - 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	3.9800e-003	0.0775	0.1339	1.8000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	15.4465	15.4465	5.0000e-003	0.0000	15.5714
Total	**3.9800e-003**	**0.0775**	**0.1339**	**1.8000e-004**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**15.4465**	**15.4465**	**5.0000e-003**	**0.0000**	**15.5714**

Mitigated Construction Off-Site

20-124 Alexandria Phase 1 - 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**

3.11 Exterior Skin - 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					
Archit. Coating	3.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.3345	0.4542	8.0000e-004		0.0102	0.0102		9.3400e-003	9.3400e-003	0.0000	69.9209	69.9209	0.0226	0.0000	70.4862
Total	**3.0376**	**0.3345**	**0.4542**	**8.0000e-004**		**0.0102**	**0.0102**		**9.3400e-003**	**9.3400e-003**	**0.0000**	**69.9209**	**69.9209**	**0.0226**	**0.0000**	**70.4862**

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					
Archit. Coating	3.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0178	0.3822	0.5582	8.0000e-004		0.0131	0.0131		0.0131	0.0131	0.0000	69.9208	69.9208	0.0226	0.0000	70.4861
Total	**3.0291**	**0.3822**	**0.5582**	**8.0000e-004**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**69.9208**	**69.9208**	**0.0226**	**0.0000**	**70.4861**

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**

3.12 Landscaping and Hardscape - 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	0.0228	0.2181	0.3118	4.8000e-004		0.0107	0.0107		0.0101	0.0101	0.0000	41.4732	41.4732	0.0102	0.0000	41.7290
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0228**	**0.2181**	**0.3118**	**4.8000e-004**		**0.0107**	**0.0107**		**0.0101**	**0.0101**	**0.0000**	**41.4732**	**41.4732**	**0.0102**	**0.0000**	**41.7290**

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	9.1900e-003	0.1959	0.3384	4.8000e-004		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	41.4731	41.4731	0.0102	0.0000	41.7290
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1900e-003**	**0.1959**	**0.3384**	**4.8000e-004**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**41.4731**	**41.4731**	**0.0102**	**0.0000**	**41.7290**

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**

3.13 MEP - 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	6.2100e-003	0.0634	0.0470	1.0000e-004		3.1900e-003	3.1900e-003		2.9400e-003	2.9400e-003	0.0000	8.4067	8.4067	2.7200e-003	0.0000	8.4747
Total	**6.2100e-003**	**0.0634**	**0.0470**	**1.0000e-004**		**3.1900e-003**	**3.1900e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**8.4067**	**8.4067**	**2.7200e-003**	**0.0000**	**8.4747**

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	1.8600e-003	0.0358	0.0595	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4067	8.4067	2.7200e-003	0.0000	8.4746
Total	**1.8600e-003**	**0.0358**	**0.0595**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4067**	**8.4067**	**2.7200e-003**	**0.0000**	**8.4746**

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					

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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**

3.14 Roofing - 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	7.3000e-003	0.0728	0.0791	1.3000e-004		3.7000e-003	3.7000e-003		3.4100e-003	3.4100e-003	0.0000	11.2852	11.2852	3.6500e-003	0.0000	11.3765
Total	**7.3000e-003**	**0.0728**	**0.0791**	**1.3000e-004**		**3.7000e-003**	**3.7000e-003**		**3.4100e-003**	**3.4100e-003**	**0.0000**	**11.2852**	**11.2852**	**3.6500e-003**	**0.0000**	**11.3765**

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

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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**

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	1.6400e-003	0.0547	0.0951	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.2852	11.2852	3.6500e-003	0.0000	11.3765
Total	**1.6400e-003**	**0.0547**	**0.0951**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.2852**	**11.2852**	**3.6500e-003**	**0.0000**	**11.3765**

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

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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**

3.15 Framing/Drywall - 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	6.2500e-003	0.0638	0.0475	1.0000e-004		3.2200e-003	3.2200e-003		2.9600e-003	2.9600e-003	0.0000	8.4696	8.4696	2.7400e-003	0.0000	8.5381
Total	**6.2500e-003**	**0.0638**	**0.0475**	**1.0000e-004**		**3.2200e-003**	**3.2200e-003**		**2.9600e-003**	**2.9600e-003**	**0.0000**	**8.4696**	**8.4696**	**2.7400e-003**	**0.0000**	**8.5381**

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	1.8800e-003	0.0361	0.0600	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4696	8.4696	2.7400e-003	0.0000	8.5381
Total	**1.8800e-003**	**0.0361**	**0.0600**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4696**	**8.4696**	**2.7400e-003**	**0.0000**	**8.5381**

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**

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

3.16 Elevators - 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	0.0152	0.0942	0.1100	1.6000e-004		4.2300e-003	4.2300e-003		4.1100e-003	4.1100e-003	0.0000	12.4544	12.4544	2.0100e-003	0.0000	12.5047
Total	**0.0152**	**0.0942**	**0.1100**	**1.6000e-004**		**4.2300e-003**	**4.2300e-003**		**4.1100e-003**	**4.1100e-003**	**0.0000**	**12.4544**	**12.4544**	**2.0100e-003**	**0.0000**	**12.5047**

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**

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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 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	3.0300e-003	0.1021	0.1010	1.6000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	2.0100e-003	0.0000	12.5047
Total	**3.0300e-003**	**0.1021**	**0.1010**	**1.6000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**2.0100e-003**	**0.0000**	**12.5047**

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**

3.17 Other Interior Finishes - 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					
Archit. Coating	3.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0900e-003	0.0408	0.0423	7.0000e-005		2.2500e-003	2.2500e-003		2.1100e-003	2.1100e-003	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**3.0163**	**0.0408**	**0.0423**	**7.0000e-005**		**2.2500e-003**	**2.2500e-003**		**2.1100e-003**	**2.1100e-003**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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					
Archit. Coating	3.0112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8000e-004	0.0218	0.0309	7.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**3.0122**	**0.0218**	**0.0309**	**7.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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**

3.18 Startup & Commissioning - 2023

Unmitigated Construction On-Site

Date: 3/27/2024 4:25 PM

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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	2.6000e-004	2.4000e-003	2.8600e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6000e-004**	**2.4000e-003**	**2.8600e-003**	**0.0000**		**1.5000e-004**	**1.5000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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					
Off-Road	9.0000e-005	1.6800e-003	2.9000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0000e-005**	**1.6800e-003**	**2.9000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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**

4.0 Operational Detail - Mobile

20-124 Alexandria Phase 1 - San Mateo County, Annual

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

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	1.4394	1.5481	11.9047	0.0366	3.1894	0.0235	3.2129	0.7959	0.0219	0.8178	0.0000	3,390.5178	3,390.5178	0.1490	0.1492	3,438.7041
Unmitigated	1.4394	1.5481	11.9047	0.0366	3.1894	0.0235	3.2129	0.7959	0.0219	0.8178	0.0000	3,390.5178	3,390.5178	0.1490	0.1492	3,438.7041

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Research & Development	5,023.17	847.42	496.18	9,473,409	9,473,409
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	5,023.17	847.42	496.18	9,473,409	9,473,409

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

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

City Park	0.457365	0.039807	0.272927	0.159223	0.032330	0.007002	0.012298	0.007135	0.004880	0.001844	0.004157	0.000408	0.000622
Research & Development	0.457365	0.039807	0.272927	0.159223	0.032330	0.007002	0.012298	0.007135	0.004880	0.001844	0.004157	0.000408	0.000622
Unenclosed Parking with Elevator	0.457365	0.039807	0.272927	0.159223	0.032330	0.007002	0.012298	0.007135	0.004880	0.001844	0.004157	0.000408	0.000622

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

	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

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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	kBTU/yr	tons/yr								MT/yr					
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
Research & Development	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 with	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					
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	0.0000	0.0000
Research & Development	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	0.0000	0.0000
Unenclosed Parking with	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	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**

5.3 Energy by Land Use - Electricity

Unmitigated

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Research & Development	8.15637e+006	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	968739	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			
City Park	0	0.0000	0.0000	0.0000	0.0000
Research & Development	8.15637e+006	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	968739	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

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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					
Mitigated	2.3200	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0359	0.0359	9.0000e-005	0.0000	0.0383
Unmitigated	2.3200	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0359	0.0359	9.0000e-005	0.0000	0.0383

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	0.3011					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-003	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0359	0.0359	9.0000e-005	0.0000	0.0383
Total	**2.3200**	**1.7000e-004**	**0.0184**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0359**	**0.0359**	**9.0000e-005**	**0.0000**	**0.0383**

Mitigated

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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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3011					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-003	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0359	0.0359	9.0000e-005	0.0000	0.0383
Total	**2.3200**	**1.7000e-004**	**0.0184**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0359**	**0.0359**	**9.0000e-005**	**0.0000**	**0.0383**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	96.9856	0.3338	0.2109	168.1827
Unmitigated	96.9856	0.3338	0.2109	168.1827

7.2 Water by Land Use

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

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	0.0000	0.0000	0.0000	0.0000
Research & Development	274.124 / 0	96.9856	0.3338	0.2109	168.1827
Unenclosed Parking with	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**96.9856**	**0.3338**	**0.2109**	**168.1827**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	0.0000	0.0000	0.0000	0.0000
Research & Development	274.124 / 0	96.9856	0.3338	0.2109	168.1827
Unenclosed Parking with	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**96.9856**	**0.3338**	**0.2109**	**168.1827**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.6352	0.5103	0.0000	21.3934
Unmitigated	8.6352	0.5103	0.0000	21.3934

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Research & Development	42.37	8.6007	0.5083	0.0000	21.3079
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**8.6352**	**0.5103**	**0.0000**	**21.3934**

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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			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Research & Development	42.37	8.6007	0.5083	0.0000	21.3079
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**8.6352**	**0.5103**	**0.0000**	**21.3934**

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	2	0	50	2682	0.73	Diesel
Emergency Generator	2	0	50	2012	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	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

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)	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Total	**0.3852**	**0.1889**	**0.9821**	**1.8500e-003**		**7.5500e-003**	**7.5500e-003**		**7.5500e-003**	**7.5500e-003**	**0.0000**	**178.7462**	**178.7462**	**0.0251**	**0.0000**	**179.3727**

11.0 Vegetation

20-124 Alexandria Phase 2 with Construction ROG Mitigation - San Mateo County, Annual

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	489.79	1000sqft	8.74	489,790.00	0
Day-Care Center	9.44	1000sqft	0.00	9,443.00	0
Library	2.10	1000sqft	0.00	2,100.00	0
Unenclosed Parking with Elevator	1,779.00	Space	0.00	504,487.00	0
Convenience Market (24 hour)	4.50	1000sqft	0.00	4,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2027
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 - Unit amount, acreage, square footage provided by applicant. Library land use is used for community center square footage.

Construction Phase - Phase lengths and start date provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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 - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment information provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Trips and VMT - All trips entered into EMFAC2021

Demolition - Demolition amount provided by applicant

Grading - From C2.06 in site plan. Net 78,157cy fill for whole site. Assuming entire site quantity for each phase for conservatism.

Architectural Coating - Super compliant paints included in this output for mitigation measure AQ-2.

Vehicle Trips - Trip rates provided by applicant. Weekend trip rates not provded by applicant. Strip Mall and Library (Community Center) weekend rates left at CalEEMod defaults for conservatism.

Vehicle Emission Factors - Emission factors from EMFAC2021

Energy Use - reach code states must be all electric.

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - All equipment t4i, BMP

Fleet Mix - Fleet mix from EMFAC2021

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF - Tier 4 BACT

Consumer Products - Consumer ROG based adjustment made based on HAZUS square footage and San Mateo Population.

Table Name	Column Name	Default Value	New Value

20-124 Alexandria Phase 2 with Construction ROG Mitigation - San Mateo County, Annual

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

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Parking	150.00	15.00
tblArchitecturalCoating	EF_Parking	150.00	15.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	10.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

20-124 Alexandria Phase 2 with Construction ROG Mitigation - San Mateo County, Annual

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	230.00	125.00
tblConstructionPhase	NumDays	230.00	125.00
tblConstructionPhase	NumDays	230.00	25.00
tblConstructionPhase	NumDays	230.00	50.00
tblConstructionPhase	NumDays	230.00	25.00
tblConstructionPhase	NumDays	230.00	50.00
tblConstructionPhase	NumDays	230.00	60.00
tblConstructionPhase	NumDays	230.00	135.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	20.00	85.00
tblConstructionPhase	NumDays	20.00	160.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	NumDays	10.00	170.00
tblConstructionPhase	NumDays	10.00	4.00
tblConsumerProducts	ROG_EF	2.14E-05	1.95E-05
tblEnergyUse	NT24E	3.36	3.57
tblEnergyUse	NT24E	1.27	1.74
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24NG	0.70	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	T24E	2.00	3.13
tblEnergyUse	T24E	0.59	4.90
tblEnergyUse	T24E	1.08	6.26
tblEnergyUse	T24E	1.08	6.26

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tblEnergyUse	T24NG	3.86	0.00
tblEnergyUse	T24NG	14.70	0.00
tblEnergyUse	T24NG	17.67	0.00
tblEnergyUse	T24NG	17.67	0.00
tblFleetMix	HHD	1.9310e-003	7.2250e-003
tblFleetMix	HHD	1.9310e-003	7.2250e-003
tblFleetMix	HHD	1.9310e-003	7.2250e-003
tblFleetMix	HHD	1.9310e-003	7.2250e-003
tblFleetMix	HHD	1.9310e-003	7.2250e-003
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
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	0.24	0.29
tblFleetMix	LDT2	0.24	0.29
tblFleetMix	LDT2	0.24	0.29
tblFleetMix	LDT2	0.24	0.29
tblFleetMix	LDT2	0.24	0.29
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

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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	6.7280e-003	7.8260e-003
tblFleetMix	LHD2	6.7280e-003	7.8260e-003
tblFleetMix	LHD2	6.7280e-003	7.8260e-003
tblFleetMix	LHD2	6.7280e-003	7.8260e-003
tblFleetMix	LHD2	6.7280e-003	7.8260e-003
tblFleetMix	MCY	0.03	4.3750e-003
tblFleetMix	MCY	0.03	4.3750e-003
tblFleetMix	MCY	0.03	4.3750e-003
tblFleetMix	MCY	0.03	4.3750e-003
tblFleetMix	MCY	0.03	4.3750e-003
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MH	2.7630e-003	6.7500e-004
tblFleetMix	MH	2.7630e-003	6.7500e-004
tblFleetMix	MH	2.7630e-003	6.7500e-004
tblFleetMix	MH	2.7630e-003	6.7500e-004
tblFleetMix	MH	2.7630e-003	6.7500e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.4050e-003	4.7860e-003
tblFleetMix	OBUS	1.4050e-003	4.7860e-003
tblFleetMix	OBUS	1.4050e-003	4.7860e-003
tblFleetMix	OBUS	1.4050e-003	4.7860e-003

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tblFleetMix	OBUS	1.4050e-003	4.7860e-003
tblFleetMix	SBUS	4.2700e-004	4.2600e-004
tblFleetMix	SBUS	4.2700e-004	4.2600e-004
tblFleetMix	SBUS	4.2700e-004	4.2600e-004
tblFleetMix	SBUS	4.2700e-004	4.2600e-004
tblFleetMix	SBUS	4.2700e-004	4.2600e-004
tblFleetMix	UBUS	5.3700e-004	1.8330e-003
tblFleetMix	UBUS	5.3700e-004	1.8330e-003
tblFleetMix	UBUS	5.3700e-004	1.8330e-003
tblFleetMix	UBUS	5.3700e-004	1.8330e-003
tblFleetMix	UBUS	5.3700e-004	1.8330e-003
tblGrading	MaterialExported	0.00	24,714.00
tblGrading	MaterialImported	0.00	102,871.00
tblLandUse	LandUseSquareFeet	9,440.00	9,443.00
tblLandUse	LandUseSquareFeet	711,600.00	504,487.00
tblLandUse	LotAcreage	11.24	8.74
tblLandUse	LotAcreage	0.22	0.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	16.01	0.00
tblLandUse	LotAcreage	0.10	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	0.70
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.90
tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	6.00
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,012.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,682.00

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tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	474.00	0.00
tblTripsAndVMT	HaulingTripNumber	15,948.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	75.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	75.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	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	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblVehicleEF	HHD	0.03	0.25
tblVehicleEF	HHD	0.18	0.22
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.36	4.66
tblVehicleEF	HHD	1.00	1.59
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	904.96	740.50
tblVehicleEF	HHD	1,515.89	1,663.10
tblVehicleEF	HHD	0.31	0.26
tblVehicleEF	HHD	0.14	0.12
tblVehicleEF	HHD	0.25	0.27
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	5.14	3.79
tblVehicleEF	HHD	2.92	2.24
tblVehicleEF	HHD	2.40	2.76
tblVehicleEF	HHD	3.3020e-003	2.6310e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.1590e-003	2.5120e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7340e-003	8.6300e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.0000e-006	3.0000e-006
tblVehicleEF	HHD	5.0000e-006	5.2100e-004

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tblVehicleEF	HHD	2.4400e-004	1.5200e-004
tblVehicleEF	HHD	0.36	0.28
tblVehicleEF	HHD	4.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	1.1400e-004	1.1290e-003
tblVehicleEF	HHD	1.4000e-005	3.0000e-006
tblVehicleEF	HHD	8.0340e-003	6.0890e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	5.0000e-006	5.2100e-004
tblVehicleEF	HHD	2.4400e-004	1.5200e-004
tblVehicleEF	HHD	0.42	0.56
tblVehicleEF	HHD	4.0000e-006	0.00
tblVehicleEF	HHD	0.22	0.26
tblVehicleEF	HHD	1.1400e-004	1.1290e-003
tblVehicleEF	HHD	1.6000e-005	3.0000e-006
tblVehicleEF	LDA	1.1020e-003	1.3480e-003
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.42	0.48
tblVehicleEF	LDA	1.86	2.45
tblVehicleEF	LDA	211.07	229.92
tblVehicleEF	LDA	44.97	59.74
tblVehicleEF	LDA	3.2160e-003	3.2280e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.14	0.20
tblVehicleEF	LDA	0.04	6.3780e-003
tblVehicleEF	LDA	1.0640e-003	9.9100e-004
tblVehicleEF	LDA	1.4700e-003	1.7490e-003
tblVehicleEF	LDA	0.02	2.2320e-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	LDA	9.7900e-004	9.1100e-004
tblVehicleEF	LDA	1.3520e-003	1.6090e-003
tblVehicleEF	LDA	0.02	0.23
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.9800e-003	4.9830e-003
tblVehicleEF	LDA	0.03	0.18
tblVehicleEF	LDA	0.15	0.24
tblVehicleEF	LDA	2.0880e-003	2.2730e-003
tblVehicleEF	LDA	4.4500e-004	5.9100e-004
tblVehicleEF	LDA	0.02	0.23
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.7830e-003	7.2630e-003
tblVehicleEF	LDA	0.03	0.18
tblVehicleEF	LDA	0.16	0.26
tblVehicleEF	LDT1	1.6580e-003	3.1690e-003
tblVehicleEF	LDT1	0.04	0.07
tblVehicleEF	LDT1	0.52	0.83
tblVehicleEF	LDT1	1.97	3.56
tblVehicleEF	LDT1	250.36	300.11
tblVehicleEF	LDT1	53.33	77.23
tblVehicleEF	LDT1	3.6570e-003	5.7150e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.03	0.07
tblVehicleEF	LDT1	0.15	0.27
tblVehicleEF	LDT1	0.04	7.9910e-003
tblVehicleEF	LDT1	1.2370e-003	1.3350e-003
tblVehicleEF	LDT1	1.6830e-003	2.1800e-003

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tblVehicleEF	LDT1	0.02	2.7970e-003
tblVehicleEF	LDT1	1.1370e-003	1.2270e-003
tblVehicleEF	LDT1	1.5470e-003	2.0040e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.08	0.10
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	6.4780e-003	0.01
tblVehicleEF	LDT1	0.06	0.29
tblVehicleEF	LDT1	0.16	0.35
tblVehicleEF	LDT1	2.4770e-003	2.9670e-003
tblVehicleEF	LDT1	5.2800e-004	7.6400e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.08	0.10
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	9.4510e-003	0.02
tblVehicleEF	LDT1	0.06	0.29
tblVehicleEF	LDT1	0.18	0.38
tblVehicleEF	LDT2	1.6310e-003	1.6770e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	2.38	2.73
tblVehicleEF	LDT2	259.00	308.80
tblVehicleEF	LDT2	55.53	77.72
tblVehicleEF	LDT2	3.8230e-003	4.0310e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.17	0.23
tblVehicleEF	LDT2	0.04	7.7220e-003
tblVehicleEF	LDT2	1.1820e-003	1.0760e-003

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tblVehicleEF	LDT2	1.5510e-003	1.7830e-003
tblVehicleEF	LDT2	0.02	2.7030e-003
tblVehicleEF	LDT2	1.0890e-003	9.9000e-004
tblVehicleEF	LDT2	1.4260e-003	1.6390e-003
tblVehicleEF	LDT2	0.03	0.17
tblVehicleEF	LDT2	0.07	0.05
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	6.1260e-003	6.1430e-003
tblVehicleEF	LDT2	0.05	0.13
tblVehicleEF	LDT2	0.19	0.26
tblVehicleEF	LDT2	2.5620e-003	3.0520e-003
tblVehicleEF	LDT2	5.5000e-004	7.6800e-004
tblVehicleEF	LDT2	0.03	0.17
tblVehicleEF	LDT2	0.07	0.05
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	8.9030e-003	8.9500e-003
tblVehicleEF	LDT2	0.05	0.13
tblVehicleEF	LDT2	0.21	0.28
tblVehicleEF	LHD1	4.3630e-003	4.6720e-003
tblVehicleEF	LHD1	5.2110e-003	4.1040e-003
tblVehicleEF	LHD1	8.9570e-003	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.46	0.60
tblVehicleEF	LHD1	0.92	2.33
tblVehicleEF	LHD1	8.36	8.01
tblVehicleEF	LHD1	723.35	709.78
tblVehicleEF	LHD1	10.60	17.95
tblVehicleEF	LHD1	7.1700e-004	5.6100e-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	0.27	0.26
tblVehicleEF	LHD1	0.23	0.35
tblVehicleEF	LHD1	8.8200e-004	6.2700e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8440e-003	9.3110e-003
tblVehicleEF	LHD1	6.5010e-003	7.6410e-003
tblVehicleEF	LHD1	2.1400e-004	1.3800e-004
tblVehicleEF	LHD1	8.4400e-004	6.0000e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4610e-003	2.3280e-003
tblVehicleEF	LHD1	6.1750e-003	7.2770e-003
tblVehicleEF	LHD1	1.9600e-004	1.2700e-004
tblVehicleEF	LHD1	9.7200e-004	0.07
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.4300e-004	0.00
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.04	0.08
tblVehicleEF	LHD1	8.1000e-005	7.8000e-005
tblVehicleEF	LHD1	7.0580e-003	6.9340e-003
tblVehicleEF	LHD1	1.0500e-004	1.7700e-004
tblVehicleEF	LHD1	9.7200e-004	0.07
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	6.4300e-004	0.00
tblVehicleEF	LHD1	0.08	0.06

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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	0.14	0.11
tblVehicleEF	LHD1	0.05	0.09
tblVehicleEF	LHD2	2.6770e-003	2.6150e-003
tblVehicleEF	LHD2	5.1540e-003	4.2520e-003
tblVehicleEF	LHD2	5.0690e-003	9.0940e-003
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.44	0.37
tblVehicleEF	LHD2	0.53	1.26
tblVehicleEF	LHD2	13.00	12.98
tblVehicleEF	LHD2	701.00	748.68
tblVehicleEF	LHD2	7.00	9.33
tblVehicleEF	LHD2	1.6320e-003	1.5830e-003
tblVehicleEF	LHD2	0.06	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.29	0.37
tblVehicleEF	LHD2	0.14	0.19
tblVehicleEF	LHD2	1.4440e-003	1.3810e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.1300e-004	6.4000e-005
tblVehicleEF	LHD2	1.3810e-003	1.3210e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6980e-003	2.6480e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.0400e-004	5.9000e-005
tblVehicleEF	LHD2	4.9000e-004	0.04
tblVehicleEF	LHD2	0.02	0.01

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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.3500e-004	0.00
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	6.7670e-003	7.2090e-003
tblVehicleEF	LHD2	6.9000e-005	9.2000e-005
tblVehicleEF	LHD2	4.9000e-004	0.04
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.3500e-004	0.00
tblVehicleEF	LHD2	0.11	0.09
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	MCY	0.32	0.13
tblVehicleEF	MCY	0.25	0.16
tblVehicleEF	MCY	18.02	10.15
tblVehicleEF	MCY	9.33	7.62
tblVehicleEF	MCY	212.68	185.77
tblVehicleEF	MCY	59.32	42.23
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	6.3760e-003
tblVehicleEF	MCY	1.15	0.49
tblVehicleEF	MCY	0.27	0.10
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.1880e-003	2.0510e-003
tblVehicleEF	MCY	3.0600e-003	3.6880e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0410e-003	1.9150e-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	MCY	2.8630e-003	3.4540e-003
tblVehicleEF	MCY	0.60	2.98
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.35	0.00
tblVehicleEF	MCY	2.15	0.84
tblVehicleEF	MCY	0.40	3.69
tblVehicleEF	MCY	1.91	1.12
tblVehicleEF	MCY	2.1050e-003	1.8370e-003
tblVehicleEF	MCY	5.8700e-004	4.1700e-004
tblVehicleEF	MCY	0.60	0.07
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.35	0.00
tblVehicleEF	MCY	2.70	1.03
tblVehicleEF	MCY	0.40	3.69
tblVehicleEF	MCY	2.08	1.22
tblVehicleEF	MDV	1.5960e-003	1.7730e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.50	0.56
tblVehicleEF	MDV	2.42	2.77
tblVehicleEF	MDV	310.61	368.66
tblVehicleEF	MDV	65.45	92.23
tblVehicleEF	MDV	4.9900e-003	4.7100e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.18	0.25
tblVehicleEF	MDV	0.04	7.7440e-003
tblVehicleEF	MDV	1.1750e-003	1.0630e-003
tblVehicleEF	MDV	1.5330e-003	1.7680e-003
tblVehicleEF	MDV	0.02	2.7100e-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	1.0830e-003	9.7900e-004
tblVehicleEF	MDV	1.4100e-003	1.6250e-003
tblVehicleEF	MDV	0.04	0.19
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	6.1010e-003	6.7560e-003
tblVehicleEF	MDV	0.05	0.14
tblVehicleEF	MDV	0.20	0.29
tblVehicleEF	MDV	3.0690e-003	3.6430e-003
tblVehicleEF	MDV	6.4800e-004	9.1200e-004
tblVehicleEF	MDV	0.04	0.19
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	8.8350e-003	9.8310e-003
tblVehicleEF	MDV	0.05	0.14
tblVehicleEF	MDV	0.22	0.32
tblVehicleEF	MH	4.8570e-003	6.4470e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.33	0.48
tblVehicleEF	MH	1.68	2.07
tblVehicleEF	MH	1,371.07	1,663.26
tblVehicleEF	MH	15.87	20.71
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.88	1.07
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01

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tblVehicleEF	MH	2.3300e-004	2.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2840e-003	3.3290e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	2.1400e-004	2.5100e-004
tblVehicleEF	MH	0.20	16.16
tblVehicleEF	MH	0.02	4.35
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.03	0.05
tblVehicleEF	MH	4.5490e-003	0.11
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.5700e-004	2.0500e-004
tblVehicleEF	MH	0.20	16.16
tblVehicleEF	MH	0.02	4.35
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.04	0.06
tblVehicleEF	MH	4.5490e-003	0.11
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MHD	3.9080e-003	0.02
tblVehicleEF	MHD	1.1440e-003	9.9980e-003
tblVehicleEF	MHD	8.9470e-003	0.01
tblVehicleEF	MHD	0.38	0.66
tblVehicleEF	MHD	0.16	0.24
tblVehicleEF	MHD	0.96	1.14
tblVehicleEF	MHD	59.10	142.10
tblVehicleEF	MHD	1,005.67	1,209.51
tblVehicleEF	MHD	9.13	10.21
tblVehicleEF	MHD	8.3740e-003	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	MHD	0.13	0.14
tblVehicleEF	MHD	8.0500e-003	7.8240e-003
tblVehicleEF	MHD	0.31	0.75
tblVehicleEF	MHD	1.30	0.79
tblVehicleEF	MHD	1.67	1.27
tblVehicleEF	MHD	1.7800e-004	1.1900e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	6.2490e-003	8.4550e-003
tblVehicleEF	MHD	1.1500e-004	1.2600e-004
tblVehicleEF	MHD	1.7000e-004	1.1380e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	5.9710e-003	8.0770e-003
tblVehicleEF	MHD	1.0500e-004	1.1600e-004
tblVehicleEF	MHD	2.3500e-004	0.02
tblVehicleEF	MHD	0.01	5.2980e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	1.6200e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	5.6100e-004	1.3120e-003
tblVehicleEF	MHD	9.5990e-003	0.01
tblVehicleEF	MHD	9.0000e-005	1.0100e-004
tblVehicleEF	MHD	2.3500e-004	0.02
tblVehicleEF	MHD	0.01	5.2980e-003
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	1.6200e-004	0.00
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.01	0.04

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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	0.05	0.06
tblVehicleEF	OBUS	6.7430e-003	6.7550e-003
tblVehicleEF	OBUS	2.1650e-003	8.5090e-003
tblVehicleEF	OBUS	0.01	9.3830e-003
tblVehicleEF	OBUS	0.65	0.50
tblVehicleEF	OBUS	0.27	0.19
tblVehicleEF	OBUS	1.42	0.96
tblVehicleEF	OBUS	104.84	90.21
tblVehicleEF	OBUS	1,245.43	1,257.65
tblVehicleEF	OBUS	12.47	8.65
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.01	9.0690e-003
tblVehicleEF	OBUS	0.46	0.37
tblVehicleEF	OBUS	1.47	0.69
tblVehicleEF	OBUS	1.22	1.12
tblVehicleEF	OBUS	1.5000e-004	2.2300e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.7860e-003	8.0360e-003
tblVehicleEF	OBUS	1.4600e-004	9.3000e-005
tblVehicleEF	OBUS	1.4300e-004	2.1300e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.4360e-003	7.6810e-003
tblVehicleEF	OBUS	1.3400e-004	8.6000e-005
tblVehicleEF	OBUS	7.3900e-004	0.03
tblVehicleEF	OBUS	0.01	7.6900e-003
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	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	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.9500e-004	8.4900e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.2300e-004	8.5000e-005
tblVehicleEF	OBUS	7.3900e-004	0.03
tblVehicleEF	OBUS	0.01	7.6900e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	SBUS	0.13	0.10
tblVehicleEF	SBUS	7.3810e-003	0.08
tblVehicleEF	SBUS	0.01	8.8300e-003
tblVehicleEF	SBUS	4.70	2.59
tblVehicleEF	SBUS	0.67	1.18
tblVehicleEF	SBUS	1.72	1.23
tblVehicleEF	SBUS	370.42	205.21
tblVehicleEF	SBUS	935.90	927.01
tblVehicleEF	SBUS	9.22	6.32
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.6340e-003	6.1010e-003
tblVehicleEF	SBUS	2.83	1.25
tblVehicleEF	SBUS	3.42	2.08
tblVehicleEF	SBUS	0.83	0.50
tblVehicleEF	SBUS	2.7720e-003	1.1170e-003
tblVehicleEF	SBUS	0.74	0.04

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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	9.9310e-003	9.9820e-003
tblVehicleEF	SBUS	0.02	9.5970e-003
tblVehicleEF	SBUS	1.5200e-004	8.6000e-005
tblVehicleEF	SBUS	2.6520e-003	1.0680e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.4830e-003	2.4950e-003
tblVehicleEF	SBUS	0.02	9.1580e-003
tblVehicleEF	SBUS	1.4000e-004	7.9000e-005
tblVehicleEF	SBUS	7.5000e-004	0.05
tblVehicleEF	SBUS	9.0470e-003	0.01
tblVehicleEF	SBUS	0.57	0.30
tblVehicleEF	SBUS	3.9700e-004	0.00
tblVehicleEF	SBUS	0.08	0.06
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	3.5540e-003	1.8770e-003
tblVehicleEF	SBUS	9.0210e-003	8.6840e-003
tblVehicleEF	SBUS	9.1000e-005	6.3000e-005
tblVehicleEF	SBUS	7.5000e-004	0.05
tblVehicleEF	SBUS	9.0470e-003	0.01
tblVehicleEF	SBUS	0.83	0.47
tblVehicleEF	SBUS	3.9700e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	UBUS	1.52	0.55
tblVehicleEF	UBUS	0.01	5.1180e-003
tblVehicleEF	UBUS	11.42	6.31
tblVehicleEF	UBUS	0.82	0.90

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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	1,598.09	1,055.39
tblVehicleEF	UBUS	8.92	5.40
tblVehicleEF	UBUS	0.26	0.16
tblVehicleEF	UBUS	7.2430e-003	7.9690e-003
tblVehicleEF	UBUS	0.69	0.25
tblVehicleEF	UBUS	0.10	0.05
tblVehicleEF	UBUS	0.08	0.14
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	5.0090e-003	4.6880e-003
tblVehicleEF	UBUS	6.2000e-005	2.5000e-005
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	7.8010e-003	0.01
tblVehicleEF	UBUS	4.7900e-003	4.4790e-003
tblVehicleEF	UBUS	5.7000e-005	2.3000e-005
tblVehicleEF	UBUS	7.1500e-004	0.01
tblVehicleEF	UBUS	0.01	4.5430e-003
tblVehicleEF	UBUS	5.6000e-004	0.00
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	5.0710e-003	0.01
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	0.01	8.4560e-003
tblVehicleEF	UBUS	8.8000e-005	5.3000e-005
tblVehicleEF	UBUS	7.1500e-004	0.01
tblVehicleEF	UBUS	0.01	4.5430e-003
tblVehicleEF	UBUS	5.6000e-004	0.00
tblVehicleEF	UBUS	1.55	0.61
tblVehicleEF	UBUS	5.0710e-003	0.01
tblVehicleEF	UBUS	0.07	0.02
tblVehicleTrips	ST_TR	6.22	2.74

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tblVehicleTrips	ST_TR	1.90	1.52
tblVehicleTrips	SU_TR	5.84	2.57
tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	762.28	686.22
tblVehicleTrips	WD_TR	47.62	20.97
tblVehicleTrips	WD_TR	72.05	27.62
tblVehicleTrips	WD_TR	11.26	9.01
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	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

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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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
Year	tons/yr										MT/yr					
2024	0.3066	2.8136	2.9939	6.1100e-003	0.4026	0.1254	0.5280	0.1308	0.1173	0.2481	0.0000	532.0508	532.0508	0.1431	0.0000	535.6270
2025	0.4293	2.7504	3.5340	6.4300e-003	0.0000	0.1101	0.1101	0.0000	0.1065	0.1065	0.0000	544.2756	544.2756	0.0797	0.0000	546.2689
2026	0.5162	0.6868	0.9422	1.5500e-003	0.0000	0.0276	0.0276	0.0000	0.0258	0.0258	0.0000	133.7176	133.7176	0.0376	0.0000	134.6587
Maximum	**0.5162**	**2.8136**	**3.5340**	**6.4300e-003**	**0.4026**	**0.1254**	**0.5280**	**0.1308**	**0.1173**	**0.2481**	**0.0000**	**544.2756**	**544.2756**	**0.1431**	**0.0000**	**546.2689**

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					
2024	0.1015	2.0291	3.6775	6.1100e-003	0.1812	0.0158	0.1970	0.0589	0.0158	0.0747	0.0000	532.0502	532.0502	0.1431	0.0000	535.6264
2025	0.2217	2.4952	3.8957	6.4300e-003	0.0000	0.0335	0.0335	0.0000	0.0335	0.0335	0.0000	544.2750	544.2750	0.0797	0.0000	546.2682
2026	0.4744	0.6993	1.0592	1.5500e-003	0.0000	0.0145	0.0145	0.0000	0.0145	0.0145	0.0000	133.7174	133.7174	0.0376	0.0000	134.6585
Maximum	**0.4744**	**2.4952**	**3.8957**	**6.4300e-003**	**0.1812**	**0.0335**	**0.1970**	**0.0589**	**0.0335**	**0.0747**	**0.0000**	**544.2750**	**544.2750**	**0.1431**	**0.0000**	**546.2682**

	ROG	NOx	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	**36.31**	**16.43**	**-15.56**	**0.00**	**55.00**	**75.72**	**63.19**	**55.00**	**74.40**	**67.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	0.1141	0.1004
2	4-1-2024	6-30-2024	0.8260	0.6303
3	7-1-2024	9-30-2024	1.4214	0.7951
4	10-1-2024	12-31-2024	0.7681	0.6132
5	1-1-2025	3-31-2025	0.9455	0.7885
6	4-1-2025	6-30-2025	0.8276	0.6879
7	7-1-2025	9-30-2025	0.8020	0.6690
8	10-1-2025	12-31-2025	0.5995	0.5665
9	1-1-2026	3-31-2026	0.7721	0.7365
10	4-1-2026	6-30-2026	0.3967	0.4041
11	7-1-2026	9-30-2026	0.0295	0.0288
		Highest	1.4214	0.7951

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	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
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	2.1730	1.7959	14.7888	0.0423	3.8011	0.0257	3.8268	0.9488	0.0240	0.9728	0.0000	3,920.9620	3,920.9620	0.2004	0.1898	3,982.5230
Stationary	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Waste						0.0000	0.0000		0.0000	0.0000	13.1822	0.0000	13.1822	0.7791	0.0000	32.6584

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Water						0.0000	0.0000		0.0000	0.0000	85.4893	0.0000	85.4893	0.2943	0.1859	148.2470
Total	**4.6671**	**1.9850**	**15.7919**	**0.0442**	**3.8011**	**0.0333**	**3.8344**	**0.9488**	**0.0316**	**0.9804**	**98.6716**	**4,099.7491**	**4,198.4206**	**1.2989**	**0.3757**	**4,342.8447**

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	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
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	2.1730	1.7959	14.7888	0.0423	3.8011	0.0257	3.8268	0.9488	0.0240	0.9728	0.0000	3,920.9620	3,920.9620	0.2004	0.1898	3,982.5230
Stationary	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Waste						0.0000	0.0000		0.0000	0.0000	13.1822	0.0000	13.1822	0.7791	0.0000	32.6584
Water						0.0000	0.0000		0.0000	0.0000	85.4893	0.0000	85.4893	0.2943	0.1859	148.2470
Total	**4.6671**	**1.9850**	**15.7919**	**0.0442**	**3.8011**	**0.0333**	**3.8344**	**0.9488**	**0.0316**	**0.9804**	**98.6716**	**4,099.7491**	**4,198.4206**	**1.2989**	**0.3757**	**4,342.8447**

	ROG	NOx	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

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Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Abatement	Site Preparation	1/1/2024	3/22/2024	5	60	
2	Demolition	Demolition	3/23/2024	5/31/2024	5	50	
3	Site Utilities	Site Preparation	6/1/2024	1/24/2025	5	170	
4	Grade Side	Grading	6/1/2024	9/27/2024	5	85	
5	Drill Displacement Piles	Trenching	8/13/2024	1/27/2025	5	120	
6	Dewatering	Site Preparation	10/5/2024	10/10/2024	5	4	
7	Shoring and Excavation	Trenching	10/5/2024	11/22/2024	5	35	
8	Concrete/Rebar/Waterproofing	Building Construction	11/30/2024	2/21/2025	5	60	
9	Structural Steel	Building Construction	2/8/2025	8/15/2025	5	135	
10	Concrete Decks	Building Construction	6/14/2025	12/5/2025	5	125	
11	Fireproofing	Building Construction	9/13/2025	3/6/2026	5	125	
12	Exterior Skin	Architectural Coating	10/4/2025	5/22/2026	5	165	
13	Landscaping and Hardscape	Paving	12/20/2025	7/31/2026	5	160	
14	MEP	Building Construction	12/27/2025	1/30/2026	5	25	
15	Roofing	Building Construction	1/3/2026	3/13/2026	5	50	
16	Framing/Drywall	Building Construction	2/7/2026	3/13/2026	5	25	
17	Elevators	Building Construction	2/14/2026	4/24/2026	5	50	
18	Other Interior Finishes	Architectural Coating	2/21/2026	5/1/2026	5	50	
19	Startup & Commissioning	Paving	6/20/2026	7/3/2026	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 286.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 758,750; Non-Residential Outdoor: 252,917; Striped Parking Area: 30,269

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Abatement	Air Compressors	1	6.00	78	0.48
Abatement	Forklifts	1	4.00	89	0.20
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	4	4.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
Demolition	Excavators	2	8.00	158	0.38
Demolition	Signal Boards	1	8.00	6	0.82
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	6.00	64	0.46
Site Utilities	Excavators	1	8.00	158	0.38
Site Utilities	Sweepers/Scrubbers	1	2.10	64	0.46
Site Utilities	Trenchers	1	3.20	78	0.50
Grade Side	Excavators	1	6.00	158	0.38
Grade Side	Rubber Tired Dozers	1	6.00	247	0.40
Grade Side	Scrapers	4	6.00	367	0.48
Grade Side	Signal Boards	2	8.00	6	0.82
Grade Side	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drill Displacement Piles	Bore/Drill Rigs	1	6.00	221	0.50
Drill Displacement Piles	Forklifts	1	2.00	89	0.20
Drill Displacement Piles	Rubber Tired Dozers	1	6.00	247	0.40
Drill Displacement Piles	Signal Boards	1	8.00	6	0.82
Drill Displacement Piles	Sweepers/Scrubbers	1	2.00	64	0.46
Dewatering	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Excavators	2	8.00	158	0.38
Shoring and Excavation	Forklifts	1	2.50	89	0.20
Concrete/Rebar/Waterproofing	Cranes	1	6.00	231	0.29
Concrete/Rebar/Waterproofing	Pumps	4	12.00	84	0.74

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Concrete/Rebar/Waterproofing	Skid Steer Loaders	1	8.00	65	0.37
Concrete/Rebar/Waterproofing	Sweepers/Scrubbers	1	12.00	64	0.46
Structural Steel	Aerial Lifts	3	5.30	63	0.31
Structural Steel	Cranes	2	8.00	231	0.29
Structural Steel	Forklifts	2	6.00	89	0.20
Structural Steel	Generator Sets	4	4.70	84	0.74
Structural Steel	Signal Boards	2	8.00	6	0.82
Structural Steel	Sweepers/Scrubbers	1	1.80	64	0.46
Structural Steel	Welders	4	8.00	46	0.45
Concrete Decks	Concrete/Industrial Saws	4	5.00	81	0.73
Concrete Decks	Forklifts	2	6.00	89	0.20
Concrete Decks	Pumps	2	5.80	84	0.74
Concrete Decks	Signal Boards	2	8.00	6	0.82
Fireproofing	Forklifts	1	4.00	89	0.20
Fireproofing	Other General Industrial Equipment	1	6.40	88	0.34
Exterior Skin	Aerial Lifts	4	8.00	63	0.31
Exterior Skin	Cranes	1	3.40	231	0.29
Exterior Skin	Forklifts	1	2.50	89	0.20
Landscaping and Hardscape	Forklifts	1	0.50	89	0.20
Landscaping and Hardscape	Pavers	1	1.80	130	0.42
Landscaping and Hardscape	Pressure Washers	1	0.50	13	0.30
Landscaping and Hardscape	Pumps	1	2.00	84	0.74
Landscaping and Hardscape	Tractors/Loaders/Backhoes	1	8.00	97	0.37
MEP	Cranes	1	6.40	231	0.29
MEP	Forklifts	1	2.60	89	0.20
MEP	Sweepers/Scrubbers	1	8.00	64	0.46
Roofing	Cranes	1	0.70	231	0.29
Roofing	Other Construction Equipment	1	6.00	172	0.42
Framing/Drywall	Cranes	1	6.40	231	0.29

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Framing/Drywall	Forklifts	1	2.90	89	0.20
Framing/Drywall	Sweepers/Scrubbers	1	8.00	64	0.46
Elevators	Forklifts	1	0.60	89	0.20
Elevators	Sweepers/Scrubbers	1	4.00	64	0.46
Elevators	Welders	2	8.00	46	0.45
Other Interior Finishes	Cement and Mortar Mixers	2	6.00	9	0.56
Other Interior Finishes	Forklifts	1	1.90	89	0.20
Other Interior Finishes	Sweepers/Scrubbers	1	4.00	64	0.46
Startup & Commissioning	Forklifts	1	4.00	89	0.20

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
Abatement	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grade Side	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drill Displacement Piles	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Dewatering	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Shoring and Excavation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete/Rebar/Waterproofing	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural Steel	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Decks	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fireproofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Skin	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Hardscape	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
MEP	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Roofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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Framing/Drywall	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Elevators	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Other Interior Finishes	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Startup & Commissioning	1	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Abatement - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0498	0.0714	1.1000e-004		2.5900e-003	2.5900e-003		2.5300e-003	2.5300e-003	0.0000	9.6741	9.6741	1.0800e-003	0.0000	9.7012
Total	**6.8400e-003**	**0.0498**	**0.0714**	**1.1000e-004**	**0.0000**	**2.5900e-003**	**2.5900e-003**	**0.0000**	**2.5300e-003**	**2.5300e-003**	**0.0000**	**9.6741**	**9.6741**	**1.0800e-003**	**0.0000**	**9.7012**

Unmitigated Construction Off-Site

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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					
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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0419	0.0724	1.1000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	9.6741	9.6741	1.0800e-003	0.0000	9.7012
Total	**2.1500e-003**	**0.0419**	**0.0724**	**1.1000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**9.6741**	**9.6741**	**1.0800e-003**	**0.0000**	**9.7012**

Mitigated Construction Off-Site

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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					
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 Demolition - 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					
Fugitive Dust					0.0513	0.0000	0.0513	7.7700e-003	0.0000	7.7700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0525	0.4050	0.6602	1.0700e-003		0.0190	0.0190		0.0185	0.0185	0.0000	92.3030	92.3030	0.0146	0.0000	92.6686
Total	**0.0525**	**0.4050**	**0.6602**	**1.0700e-003**	**0.0513**	**0.0190**	**0.0703**	**7.7700e-003**	**0.0185**	**0.0263**	**0.0000**	**92.3030**	**92.3030**	**0.0146**	**0.0000**	**92.6686**

Unmitigated Construction Off-Site

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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					
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					0.0231	0.0000	0.0231	3.5000e-003	0.0000	3.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.4278	0.7066	1.0700e-003		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	92.3029	92.3029	0.0146	0.0000	92.6685
Total	**0.0187**	**0.4278**	**0.7066**	**1.0700e-003**	**0.0231**	**4.7500e-003**	**0.0278**	**3.5000e-003**	**4.7500e-003**	**8.2500e-003**	**0.0000**	**92.3029**	**92.3029**	**0.0146**	**0.0000**	**92.6685**

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**

3.4 Site Utilities - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0275	0.2348	0.3652	5.5000e-004		0.0139	0.0139		0.0127	0.0127	0.0000	47.9693	47.9693	0.0155	0.0000	48.3571
Total	**0.0275**	**0.2348**	**0.3652**	**5.5000e-004**	**0.0000**	**0.0139**	**0.0139**	**0.0000**	**0.0127**	**0.0127**	**0.0000**	**47.9693**	**47.9693**	**0.0155**	**0.0000**	**48.3571**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3700e-003	0.2462	0.4135	5.5000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	47.9692	47.9692	0.0155	0.0000	48.3571
Total	**8.3700e-003**	**0.2462**	**0.4135**	**5.5000e-004**	**0.0000**	**1.9700e-003**	**1.9700e-003**	**0.0000**	**1.9700e-003**	**1.9700e-003**	**0.0000**	**47.9692**	**47.9692**	**0.0155**	**0.0000**	**48.3571**

Mitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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 Site Utilities - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0100e-003	0.0251	0.0431	6.0000e-005		1.4400e-003	1.4400e-003		1.3300e-003	1.3300e-003	0.0000	5.6818	5.6818	1.8400e-003	0.0000	5.7277
Total	**3.0100e-003**	**0.0251**	**0.0431**	**6.0000e-005**	**0.0000**	**1.4400e-003**	**1.4400e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**5.6818**	**5.6818**	**1.8400e-003**	**0.0000**	**5.7277**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9000e-004	0.0292	0.0490	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	5.6818	5.6818	1.8400e-003	0.0000	5.7277
Total	**9.9000e-004**	**0.0292**	**0.0490**	**6.0000e-005**	**0.0000**	**2.3000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**2.3000e-004**	**0.0000**	**5.6818**	**5.6818**	**1.8400e-003**	**0.0000**	**5.7277**

Mitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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 Grade Side - 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					
Fugitive Dust					0.3513	0.0000	0.3513	0.1230	0.0000	0.1230	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1419	1.4068	1.1803	2.7000e-003		0.0581	0.0581		0.0535	0.0535	0.0000	235.3762	235.3762	0.0753	0.0000	237.2584
Total	**0.1419**	**1.4068**	**1.1803**	**2.7000e-003**	**0.3513**	**0.0581**	**0.4094**	**0.1230**	**0.0535**	**0.1765**	**0.0000**	**235.3762**	**235.3762**	**0.0753**	**0.0000**	**237.2584**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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					0.1581	0.0000	0.1581	0.0554	0.0000	0.0554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0441	0.7704	1.4983	2.7000e-003		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	235.3759	235.3759	0.0753	0.0000	237.2581
Total	**0.0441**	**0.7704**	**1.4983**	**2.7000e-003**	**0.1581**	**4.3100e-003**	**0.1624**	**0.0554**	**4.3100e-003**	**0.0597**	**0.0000**	**235.3759**	**235.3759**	**0.0753**	**0.0000**	**237.2581**

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**

3.6 Drill Displacement Piles - 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	0.0406	0.3916	0.2496	7.7000e-004		0.0171	0.0171		0.0158	0.0158	0.0000	66.7091	66.7091	0.0211	0.0000	67.2361
Total	**0.0406**	**0.3916**	**0.2496**	**7.7000e-004**		**0.0171**	**0.0171**		**0.0158**	**0.0158**	**0.0000**	**66.7091**	**66.7091**	**0.0211**	**0.0000**	**67.2361**

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	0.0124	0.2068	0.4024	7.7000e-004		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	66.7091	66.7091	0.0211	0.0000	67.2360
Total	**0.0124**	**0.2068**	**0.4024**	**7.7000e-004**		**1.8800e-003**	**1.8800e-003**		**1.8800e-003**	**1.8800e-003**	**0.0000**	**66.7091**	**66.7091**	**0.0211**	**0.0000**	**67.2360**

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					

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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**

3.6 Drill Displacement Piles - 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					
Off-Road	7.2300e-003	0.0694	0.0459	1.4000e-004		2.9400e-003	2.9400e-003		2.7100e-003	2.7100e-003	0.0000	12.5484	12.5484	3.9700e-003	0.0000	12.6475
Total	**7.2300e-003**	**0.0694**	**0.0459**	**1.4000e-004**		**2.9400e-003**	**2.9400e-003**		**2.7100e-003**	**2.7100e-003**	**0.0000**	**12.5484**	**12.5484**	**3.9700e-003**	**0.0000**	**12.6475**

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

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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**

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	2.3300e-003	0.0389	0.0757	1.4000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	12.5484	12.5484	3.9700e-003	0.0000	12.6475
Total	**2.3300e-003**	**0.0389**	**0.0757**	**1.4000e-004**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**12.5484**	**12.5484**	**3.9700e-003**	**0.0000**	**12.6475**

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

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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**

3.7 Dewatering - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	3.8000e-003	4.0800e-003	2.0000e-005		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	1.6644	1.6644	5.4000e-004	0.0000	1.6779
Total	**4.2000e-004**	**3.8000e-003**	**4.0800e-003**	**2.0000e-005**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**1.6644**	**1.6644**	**5.4000e-004**	**0.0000**	**1.6779**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - San Mateo County, Annual

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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	5.0300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.6644	1.6644	5.4000e-004	0.0000	1.6779
Total	**3.1000e-004**	**5.0300e-003**	**0.0101**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.6644**	**1.6644**	**5.4000e-004**	**0.0000**	**1.6779**

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

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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**

3.8 Shoring and Excavation - 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	0.0105	0.0872	0.1562	3.6000e-004		3.7900e-003	3.7900e-003		3.4900e-003	3.4900e-003	0.0000	31.1824	31.1824	0.0101	0.0000	31.4345
Total	**0.0105**	**0.0872**	**0.1562**	**3.6000e-004**		**3.7900e-003**	**3.7900e-003**		**3.4900e-003**	**3.4900e-003**	**0.0000**	**31.1824**	**31.1824**	**0.0101**	**0.0000**	**31.4345**

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	5.1400e-003	0.1274	0.2322	3.6000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.1823	31.1823	0.0101	0.0000	31.4345
Total	**5.1400e-003**	**0.1274**	**0.2322**	**3.6000e-004**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**31.1823**	**31.1823**	**0.0101**	**0.0000**	**31.4345**

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**

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

3.9 Concrete/Rebar/Waterproofing - 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	0.0265	0.2347	0.3070	5.5000e-004		0.0109	0.0109		0.0106	0.0106	0.0000	47.1723	47.1723	4.8300e-003	0.0000	47.2932
Total	**0.0265**	**0.2347**	**0.3070**	**5.5000e-004**		**0.0109**	**0.0109**		**0.0106**	**0.0106**	**0.0000**	**47.1723**	**47.1723**	**4.8300e-003**	**0.0000**	**47.2932**

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**

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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 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	0.0103	0.2037	0.3420	5.5000e-004		2.1400e-003	2.1400e-003		2.1400e-003	2.1400e-003	0.0000	47.1723	47.1723	4.8300e-003	0.0000	47.2931
Total	**0.0103**	**0.2037**	**0.3420**	**5.5000e-004**		**2.1400e-003**	**2.1400e-003**		**2.1400e-003**	**2.1400e-003**	**0.0000**	**47.1723**	**47.1723**	**4.8300e-003**	**0.0000**	**47.2931**

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**

3.9 Concrete/Rebar/Waterproofing - 2025

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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	0.0427	0.3785	0.5287	9.4000e-004		0.0162	0.0162		0.0159	0.0159	0.0000	81.4781	81.4781	8.1200e-003	0.0000	81.6811
Total	**0.0427**	**0.3785**	**0.5287**	**9.4000e-004**		**0.0162**	**0.0162**		**0.0159**	**0.0159**	**0.0000**	**81.4781**	**81.4781**	**8.1200e-003**	**0.0000**	**81.6811**

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					
Off-Road	0.0178	0.3518	0.5908	9.4000e-004		3.6900e-003	3.6900e-003		3.6900e-003	3.6900e-003	0.0000	81.4780	81.4780	8.1200e-003	0.0000	81.6810
Total	**0.0178**	**0.3518**	**0.5908**	**9.4000e-004**		**3.6900e-003**	**3.6900e-003**		**3.6900e-003**	**3.6900e-003**	**0.0000**	**81.4780**	**81.4780**	**8.1200e-003**	**0.0000**	**81.6810**

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**

3.10 Structural Steel - 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

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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	0.1673	1.3934	1.5915	3.0300e-003		0.0531	0.0531		0.0511	0.0511	0.0000	251.7348	251.7348	0.0428	0.0000	252.8048
Total	**0.1673**	**1.3934**	**1.5915**	**3.0300e-003**		**0.0531**	**0.0531**		**0.0511**	**0.0511**	**0.0000**	**251.7348**	**251.7348**	**0.0428**	**0.0000**	**252.8048**

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					

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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	0.0537	1.2427	1.7801	3.0300e-003		0.0216	0.0216		0.0216	0.0216	0.0000	251.7345	251.7345	0.0428	0.0000	252.8045
Total	**0.0537**	**1.2427**	**1.7801**	**3.0300e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**	**0.0000**	**251.7345**	**251.7345**	**0.0428**	**0.0000**	**252.8045**

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**

3.11 Concrete Decks - 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					
Off-Road	0.0874	0.6961	1.0501	1.8000e-003		0.0295	0.0295		0.0292	0.0292	0.0000	153.4128	153.4128	0.0104	0.0000	153.6733

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

Total	**0.0874**	**0.6961**	**1.0501**	**1.8000e-003**		**0.0295**	**0.0295**		**0.0292**	**0.0292**	**0.0000**	**153.4128**	**153.4128**	**0.0104**	**0.0000**	**153.6733**

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	0.0321	0.6243	1.0794	1.8000e-003		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	153.4126	153.4126	0.0104	0.0000	153.6731
Total	**0.0321**	**0.6243**	**1.0794**	**1.8000e-003**		**2.3300e-003**	**2.3300e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**153.4126**	**153.4126**	**0.0104**	**0.0000**	**153.6731**

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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**

3.12 Fireproofing - 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					
Off-Road	5.9300e-003	0.0561	0.0816	1.1000e-004		2.8000e-003	2.8000e-003		2.5700e-003	2.5700e-003	0.0000	9.6386	9.6386	3.1200e-003	0.0000	9.7166
Total	**5.9300e-003**	**0.0561**	**0.0816**	**1.1000e-004**		**2.8000e-003**	**2.8000e-003**		**2.5700e-003**	**2.5700e-003**	**0.0000**	**9.6386**	**9.6386**	**3.1200e-003**	**0.0000**	**9.7166**

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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					
Off-Road	2.4800e-003	0.0483	0.0836	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	9.6386	9.6386	3.1200e-003	0.0000	9.7166
Total	**2.4800e-003**	**0.0483**	**0.0836**	**1.1000e-004**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**9.6386**	**9.6386**	**3.1200e-003**	**0.0000**	**9.7166**

Mitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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**

3.12 Fireproofing - 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	3.5800e-003	0.0338	0.0492	7.0000e-005		1.6900e-003	1.6900e-003		1.5500e-003	1.5500e-003	0.0000	5.8079	5.8079	1.8800e-003	0.0000	5.8549
Total	**3.5800e-003**	**0.0338**	**0.0492**	**7.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**5.8079**	**5.8079**	**1.8800e-003**	**0.0000**	**5.8549**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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	1.5000e-003	0.0291	0.0504	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8079	5.8079	1.8800e-003	0.0000	5.8548
Total	**1.5000e-003**	**0.0291**	**0.0504**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8079**	**5.8079**	**1.8800e-003**	**0.0000**	**5.8548**

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**

3.13 Exterior Skin - 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					
Archit. Coating	0.1047					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3300e-003	0.1160	0.1719	3.0000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	26.6972	26.6972	8.6300e-003	0.0000	26.9130
Total	**0.1141**	**0.1160**	**0.1719**	**3.0000e-004**		**3.3600e-003**	**3.3600e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**26.6972**	**26.6972**	**8.6300e-003**	**0.0000**	**26.9130**

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					
Archit. Coating	0.1047					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8100e-003	0.1459	0.2131	3.0000e-004		5.0100e-003	5.0100e-003		5.0100e-003	5.0100e-003	0.0000	26.6971	26.6971	8.6300e-003	0.0000	26.9130
Total	**0.1115**	**0.1459**	**0.2131**	**3.0000e-004**		**5.0100e-003**	**5.0100e-003**		**5.0100e-003**	**5.0100e-003**	**0.0000**	**26.6971**	**26.6971**	**8.6300e-003**	**0.0000**	**26.9130**

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**

3.13 Exterior Skin - 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					
Archit. Coating	0.1696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1879	0.2783	4.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	43.2240	43.2240	0.0140	0.0000	43.5734
Total	**0.1847**	**0.1879**	**0.2783**	**4.9000e-004**		**5.4300e-003**	**5.4300e-003**		**5.0000e-003**	**5.0000e-003**	**0.0000**	**43.2240**	**43.2240**	**0.0140**	**0.0000**	**43.5734**

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					
Archit. Coating	0.1696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.2363	0.3451	4.9000e-004		8.1100e-003	8.1100e-003		8.1100e-003	8.1100e-003	0.0000	43.2239	43.2239	0.0140	0.0000	43.5734
Total	**0.1806**	**0.2363**	**0.3451**	**4.9000e-004**		**8.1100e-003**	**8.1100e-003**		**8.1100e-003**	**8.1100e-003**	**0.0000**	**43.2239**	**43.2239**	**0.0140**	**0.0000**	**43.5734**

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**

3.14 Landscaping and Hardscape - 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					
Off-Road	1.0000e-003	9.4700e-003	0.0156	2.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	2.0752	2.0752	5.1000e-004	0.0000	2.0879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-003**	**9.4700e-003**	**0.0156**	**2.0000e-005**		**4.0000e-004**	**4.0000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**2.0752**	**2.0752**	**5.1000e-004**	**0.0000**	**2.0879**

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	4.6000e-004	9.8000e-003	0.0169	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.0752	2.0752	5.1000e-004	0.0000	2.0879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.6000e-004**	**9.8000e-003**	**0.0169**	**2.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.0752**	**2.0752**	**5.1000e-004**	**0.0000**	**2.0879**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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**

3.14 Landscaping and Hardscape - 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	0.0191	0.1799	0.2961	4.5000e-004		7.5600e-003	7.5600e-003		7.1100e-003	7.1100e-003	0.0000	39.4291	39.4291	9.6800e-003	0.0000	39.6710
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1799**	**0.2961**	**4.5000e-004**		**7.5600e-003**	**7.5600e-003**		**7.1100e-003**	**7.1100e-003**	**0.0000**	**39.4291**	**39.4291**	**9.6800e-003**	**0.0000**	**39.6710**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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					
Off-Road	8.7400e-003	0.1861	0.3215	4.5000e-004		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	39.4290	39.4290	9.6800e-003	0.0000	39.6709
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.7400e-003**	**0.1861**	**0.3215**	**4.5000e-004**		**7.0000e-004**	**7.0000e-004**		**7.0000e-004**	**7.0000e-004**	**0.0000**	**39.4290**	**39.4290**	**9.6800e-003**	**0.0000**	**39.6709**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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**

3.15 MEP - 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					
Off-Road	6.5000e-004	6.3900e-003	5.4900e-003	1.0000e-005		3.1000e-004	3.1000e-004		2.8000e-004	2.8000e-004	0.0000	1.0088	1.0088	3.3000e-004	0.0000	1.0170
Total	**6.5000e-004**	**6.3900e-003**	**5.4900e-003**	**1.0000e-005**		**3.1000e-004**	**3.1000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**1.0088**	**1.0088**	**3.3000e-004**	**0.0000**	**1.0170**

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					

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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	2.2000e-004	4.2900e-003	7.1300e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.0088	1.0088	3.3000e-004	0.0000	1.0170
Total	**2.2000e-004**	**4.2900e-003**	**7.1300e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0088**	**1.0088**	**3.3000e-004**	**0.0000**	**1.0170**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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**

3.15 MEP - 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	4.7900e-003	0.0469	0.0403	8.0000e-005		2.2500e-003	2.2500e-003		2.0700e-003	2.0700e-003	0.0000	7.3979	7.3979	2.3900e-003	0.0000	7.4578
Total	**4.7900e-003**	**0.0469**	**0.0403**	**8.0000e-005**		**2.2500e-003**	**2.2500e-003**		**2.0700e-003**	**2.0700e-003**	**0.0000**	**7.3979**	**7.3979**	**2.3900e-003**	**0.0000**	**7.4578**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - San Mateo County, Annual

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	1.6400e-003	0.0315	0.0523	8.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	7.3979	7.3979	2.3900e-003	0.0000	7.4577
Total	**1.6400e-003**	**0.0315**	**0.0523**	**8.0000e-005**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**7.3979**	**7.3979**	**2.3900e-003**	**0.0000**	**7.4577**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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**

3.16 Roofing - 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	6.2900e-003	0.0587	0.0787	1.3000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**6.2900e-003**	**0.0587**	**0.0787**	**1.3000e-004**		**2.9700e-003**	**2.9700e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

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**

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20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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 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	1.6400e-003	0.0547	0.0951	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**1.6400e-003**	**0.0547**	**0.0951**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

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**

20-124 Alexandria Phase 2 with Construction ROG Mitigation - San Mateo County, Annual

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

3.17 Framing/Drywall - 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	5.4900e-003	0.0537	0.0463	1.0000e-004		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**5.4900e-003**	**0.0537**	**0.0463**	**1.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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	1.8800e-003	0.0361	0.0600	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**1.8800e-003**	**0.0361**	**0.0600**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

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**

3.18 Elevators - 2026

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	0.0131	0.0869	0.1085	1.6000e-004		3.1600e-003	3.1600e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**0.0131**	**0.0869**	**0.1085**	**1.6000e-004**		**3.1600e-003**	**3.1600e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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

20-124 Alexandria Phase 2 with Construction ROG Mitigation - 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	3.0300e-003	0.1021	0.1010	1.6000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**3.0300e-003**	**0.1021**	**0.1010**	**1.6000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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**

3.19 Other Interior Finishes - 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

Archit. Coating	0.2743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6900e-003	0.0370	0.0421	7.0000e-005		1.8300e-003	1.8300e-003		1.7300e-003	1.7300e-003	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**0.2790**	**0.0370**	**0.0421**	**7.0000e-005**		**1.8300e-003**	**1.8300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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					

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

Archit. Coating	0.2743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8000e-004	0.0218	0.0309	7.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**0.2753**	**0.0218**	**0.0309**	**7.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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**

3.20 Startup & Commissioning - 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	2.2000e-004	2.0500e-003	2.8300e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2000e-004**	**2.0500e-003**	**2.8300e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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					

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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	9.0000e-005	1.6800e-003	2.9000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0000e-005**	**1.6800e-003**	**2.9000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Date: 3/27/2024 4:28 PM

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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					
Mitigated	2.1730	1.7959	14.7888	0.0423	3.8011	0.0257	3.8268	0.9488	0.0240	0.9728	0.0000	3,920.9620	3,920.9620	0.2004	0.1898	3,982.5230
Unmitigated	2.1730	1.7959	14.7888	0.0423	3.8011	0.0257	3.8268	0.9488	0.0240	0.9728	0.0000	3,920.9620	3,920.9620	0.2004	0.1898	3,982.5230

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	3,087.99	4,878.77	4055.27	2,651,809	2,651,809
Day-Care Center	197.96	25.87	24.26	174,947	174,947
Library	58.00	168.19	88.39	132,341	132,341
Research & Development	4,413.01	744.48	435.91	8,322,687	8,322,687
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	7,756.96	5,817.30	4,603.83	11,281,784	11,281,784

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
Convenience Market (24 hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 hour)	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Day-Care Center	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Library	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Research & Development	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Unenclosed Parking with Elevator	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675

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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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					
Convenience Market (24 hour)	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
Library	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
Research & Development	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 with	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					
Convenience Market (24 hour)	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
Library	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
Research & Development	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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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 hour)	52110	0.0000	0.0000	0.0000	0.0000
Day-Care Center	86403.4	0.0000	0.0000	0.0000	0.0000
Library	30723	0.0000	0.0000	0.0000	0.0000
Research & Development	7.16563e+006	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	978705	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

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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			
Convenience Market (24 hour)	52110	0.0000	0.0000	0.0000	0.0000
Day-Care Center	86403.4	0.0000	0.0000	0.0000	0.0000
Library	30723	0.0000	0.0000	0.0000	0.0000
Research & Development	7.16563e+006	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	978705	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	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Unmitigated	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435

6.2 Area by SubCategory

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

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	0.2743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9300e-003	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Total	**2.1090**	**1.9000e-004**	**0.0209**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0408**	**0.0408**	**1.1000e-004**	**0.0000**	**0.0435**

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	0.2743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9300e-003	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Total	**2.1090**	**1.9000e-004**	**0.0209**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0408**	**0.0408**	**1.1000e-004**	**0.0000**	**0.0435**

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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	85.4893	0.2943	0.1859	148.2470
Unmitigated	85.4893	0.2943	0.1859	148.2470

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Research & Development	240.827 / 0	85.2049	0.2933	0.1853	147.7538
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

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

Total	**85.4893**	**0.2943**	**0.1859**	**148.2470**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Research & Development	240.827 / 0	85.2049	0.2933	0.1853	147.7538
Unenclosed Parking with	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**85.4893**	**0.2943**	**0.1859**	**148.2470**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.1822	0.7791	0.0000	32.6584
Unmitigated	13.1822	0.7791	0.0000	32.6584

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Research & Development	37.22	7.5553	0.4465	0.0000	18.7180
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**13.1822**	**0.7791**	**0.0000**	**32.6584**

Mitigated

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Research & Development	37.22	7.5553	0.4465	0.0000	18.7180
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**13.1822**	**0.7791**	**0.0000**	**32.6584**

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	2	0	50	2682	0.73	Diesel
Emergency Generator	2	0	50	2012	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	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

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)	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Total	**0.3852**	**0.1889**	**0.9821**	**1.8500e-003**		**7.5500e-003**	**7.5500e-003**		**7.5500e-003**	**7.5500e-003**	**0.0000**	**178.7462**	**178.7462**	**0.0251**	**0.0000**	**179.3727**

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
Research & Development	489.79	1000sqft	8.74	489,790.00	0
Day-Care Center	9.44	1000sqft	0.00	9,443.00	0
Library	2.10	1000sqft	0.00	2,100.00	0
Unenclosed Parking with Elevator	1,779.00	Space	0.00	504,487.00	0
Convenience Market (24 hour)	4.50	1000sqft	0.00	4,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2027
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 - Unit amount, acreage, square footage provided by applicant. Library land use is used for community center square footage.

Construction Phase - Phase lengths and start date provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

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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 Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment information provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Trips and VMT - All trips entered into EMFAC2021

Demolition - Demolition amount provided by applicant

Grading - From C2.06 in site plan. Net 78,157cy fill for whole site. Assuming entire site quantity for each phase for conservatism.

Vehicle Trips - Trip rates provided by applicant. Weekend trip rates not provded by applicant. Strip Mall and Library (Community Center) weekend rates left at CalEEMod defaults for conservatism.

Vehicle Emission Factors - Emission factors from EMFAC2021

Consumer Products - Consumer ROG based adjustment made based on HAZUS square footage and San Mateo Population.

Energy Use - reach code states must be all electric

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - All equipment t4i, BMP

Fleet Mix - Fleet mix from EMFAC2021

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF - Tier 4 BACT

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
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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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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tblConstructionPhase	NumDays	230.00	50.00
tblConstructionPhase	NumDays	230.00	25.00
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tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	20.00	85.00

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tblConstructionPhase	NumDays	20.00	160.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	NumDays	10.00	170.00
tblConstructionPhase	NumDays	10.00	4.00
tblConsumerProducts	ROG_EF	2.14E-05	1.95E-05
tblFleetMix	HHD	1.9310e-003	7.2246e-003
tblFleetMix	HHD	1.9310e-003	7.2246e-003
tblFleetMix	HHD	1.9310e-003	7.2246e-003
tblFleetMix	HHD	1.9310e-003	7.2246e-003
tblFleetMix	HHD	1.9310e-003	7.2246e-003
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
tblFleetMix	LDA	0.45	0.42
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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	0.24	0.29
tblFleetMix	LDT2	0.24	0.29
tblFleetMix	LDT2	0.24	0.29
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tblFleetMix	LDT2	0.24	0.29
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03

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tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	6.7280e-003	7.8258e-003
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tblFleetMix	LHD2	6.7280e-003	7.8258e-003
tblFleetMix	LHD2	6.7280e-003	7.8258e-003
tblFleetMix	LHD2	6.7280e-003	7.8258e-003
tblFleetMix	MCY	0.03	4.3755e-003
tblFleetMix	MCY	0.03	4.3755e-003
tblFleetMix	MCY	0.03	4.3755e-003
tblFleetMix	MCY	0.03	4.3755e-003
tblFleetMix	MCY	0.03	4.3755e-003
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MDV	0.15	0.17
tblFleetMix	MH	2.7630e-003	6.7500e-004
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tblFleetMix	MH	2.7630e-003	6.7500e-004
tblFleetMix	MH	2.7630e-003	6.7500e-004
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tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.4050e-003	4.7856e-003
tblFleetMix	OBUS	1.4050e-003	4.7856e-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	OBUS	1.4050e-003	4.7856e-003
tblFleetMix	OBUS	1.4050e-003	4.7856e-003
tblFleetMix	OBUS	1.4050e-003	4.7856e-003
tblFleetMix	SBUS	4.2700e-004	4.2551e-004
tblFleetMix	SBUS	4.2700e-004	4.2551e-004
tblFleetMix	SBUS	4.2700e-004	4.2551e-004
tblFleetMix	SBUS	4.2700e-004	4.2551e-004
tblFleetMix	SBUS	4.2700e-004	4.2551e-004
tblFleetMix	UBUS	5.3700e-004	1.8335e-003
tblFleetMix	UBUS	5.3700e-004	1.8335e-003
tblFleetMix	UBUS	5.3700e-004	1.8335e-003
tblFleetMix	UBUS	5.3700e-004	1.8335e-003
tblFleetMix	UBUS	5.3700e-004	1.8335e-003
tblGrading	MaterialExported	0.00	24,714.00
tblGrading	MaterialImported	0.00	102,871.00
tblLandUse	LandUseSquareFeet	9,440.00	9,443.00
tblLandUse	LandUseSquareFeet	711,600.00	504,487.00
tblLandUse	LotAcreage	11.24	8.74
tblLandUse	LotAcreage	0.22	0.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	16.01	0.00
tblLandUse	LotAcreage	0.10	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	0.70
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.90
tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	6.00
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02

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tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,682.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,012.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	474.00	0.00
tblTripsAndVMT	HaulingTripNumber	15,948.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	VendorTripNumber	166.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	75.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	75.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

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tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblTripsAndVMT	WorkerTripNumber	375.00	0.00
tblVehicleEF	HHD	0.03	0.25
tblVehicleEF	HHD	0.18	0.22
tblVehicleEF	HHD	3.0000e-006	4.7540e-007
tblVehicleEF	HHD	5.36	4.66
tblVehicleEF	HHD	1.00	1.59
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	904.96	740.50
tblVehicleEF	HHD	1,515.89	1,663.10
tblVehicleEF	HHD	0.31	0.26
tblVehicleEF	HHD	0.14	0.12
tblVehicleEF	HHD	0.25	0.27
tblVehicleEF	HHD	3.0000e-006	4.7653e-007
tblVehicleEF	HHD	5.14	3.79
tblVehicleEF	HHD	2.92	2.24
tblVehicleEF	HHD	2.40	2.76
tblVehicleEF	HHD	3.3020e-003	2.6313e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0000e-006	3.3757e-006
tblVehicleEF	HHD	3.1590e-003	2.5115e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7340e-003	8.6300e-003

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tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.0000e-006	3.1038e-006
tblVehicleEF	HHD	5.0000e-006	5.2072e-004
tblVehicleEF	HHD	2.4400e-004	1.5208e-004
tblVehicleEF	HHD	0.36	0.28
tblVehicleEF	HHD	4.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	1.1400e-004	1.1290e-003
tblVehicleEF	HHD	1.4000e-005	2.5767e-006
tblVehicleEF	HHD	8.0340e-003	6.0890e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.0000e-006	2.5453e-006
tblVehicleEF	HHD	5.0000e-006	5.2072e-004
tblVehicleEF	HHD	2.4400e-004	1.5208e-004
tblVehicleEF	HHD	0.42	0.56
tblVehicleEF	HHD	4.0000e-006	0.00
tblVehicleEF	HHD	0.22	0.26
tblVehicleEF	HHD	1.1400e-004	1.1290e-003
tblVehicleEF	HHD	1.6000e-005	2.8211e-006
tblVehicleEF	LDA	1.1020e-003	1.3482e-003
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.42	0.48
tblVehicleEF	LDA	1.86	2.45
tblVehicleEF	LDA	211.07	229.92
tblVehicleEF	LDA	44.97	59.74
tblVehicleEF	LDA	3.2160e-003	3.2277e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.14	0.20

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tblVehicleEF	LDA	0.04	6.3782e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.0640e-003	9.9057e-004
tblVehicleEF	LDA	1.4700e-003	1.7494e-003
tblVehicleEF	LDA	0.02	2.2324e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	9.7900e-004	9.1130e-004
tblVehicleEF	LDA	1.3520e-003	1.6085e-003
tblVehicleEF	LDA	0.02	0.23
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.9800e-003	4.9831e-003
tblVehicleEF	LDA	0.03	0.18
tblVehicleEF	LDA	0.15	0.24
tblVehicleEF	LDA	2.0880e-003	2.2728e-003
tblVehicleEF	LDA	4.4500e-004	5.9055e-004
tblVehicleEF	LDA	0.02	0.23
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.7830e-003	7.2630e-003
tblVehicleEF	LDA	0.03	0.18
tblVehicleEF	LDA	0.16	0.26
tblVehicleEF	LDT1	1.6580e-003	3.1686e-003
tblVehicleEF	LDT1	0.04	0.07
tblVehicleEF	LDT1	0.52	0.83
tblVehicleEF	LDT1	1.97	3.56
tblVehicleEF	LDT1	250.36	300.11
tblVehicleEF	LDT1	53.33	77.23
tblVehicleEF	LDT1	3.6570e-003	5.7149e-003

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tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.03	0.07
tblVehicleEF	LDT1	0.15	0.27
tblVehicleEF	LDT1	0.04	7.9912e-003
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.2370e-003	1.3347e-003
tblVehicleEF	LDT1	1.6830e-003	2.1799e-003
tblVehicleEF	LDT1	0.02	2.7969e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.1370e-003	1.2273e-003
tblVehicleEF	LDT1	1.5470e-003	2.0043e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.08	0.10
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	6.4780e-003	0.01
tblVehicleEF	LDT1	0.06	0.29
tblVehicleEF	LDT1	0.16	0.35
tblVehicleEF	LDT1	2.4770e-003	2.9668e-003
tblVehicleEF	LDT1	5.2800e-004	7.6354e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.08	0.10
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	9.4510e-003	0.02
tblVehicleEF	LDT1	0.06	0.29
tblVehicleEF	LDT1	0.18	0.38
tblVehicleEF	LDT2	1.6310e-003	1.6767e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	2.38	2.73

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tblVehicleEF	LDT2	259.00	308.80
tblVehicleEF	LDT2	55.53	77.72
tblVehicleEF	LDT2	3.8230e-003	4.0308e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.17	0.23
tblVehicleEF	LDT2	0.04	7.7221e-003
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.1820e-003	1.0765e-003
tblVehicleEF	LDT2	1.5510e-003	1.7830e-003
tblVehicleEF	LDT2	0.02	2.7027e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.0890e-003	9.9032e-004
tblVehicleEF	LDT2	1.4260e-003	1.6394e-003
tblVehicleEF	LDT2	0.03	0.17
tblVehicleEF	LDT2	0.07	0.05
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	6.1260e-003	6.1428e-003
tblVehicleEF	LDT2	0.05	0.13
tblVehicleEF	LDT2	0.19	0.26
tblVehicleEF	LDT2	2.5620e-003	3.0523e-003
tblVehicleEF	LDT2	5.5000e-004	7.6832e-004
tblVehicleEF	LDT2	0.03	0.17
tblVehicleEF	LDT2	0.07	0.05
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	8.9030e-003	8.9497e-003
tblVehicleEF	LDT2	0.05	0.13
tblVehicleEF	LDT2	0.21	0.28
tblVehicleEF	LHD1	4.3630e-003	4.6716e-003

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tblVehicleEF	LHD1	5.2110e-003	4.1042e-003
tblVehicleEF	LHD1	8.9570e-003	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.46	0.60
tblVehicleEF	LHD1	0.92	2.33
tblVehicleEF	LHD1	8.36	8.01
tblVehicleEF	LHD1	723.35	709.78
tblVehicleEF	LHD1	10.60	17.95
tblVehicleEF	LHD1	7.1700e-004	5.6090e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.27	0.26
tblVehicleEF	LHD1	0.23	0.35
tblVehicleEF	LHD1	8.8200e-004	6.2681e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8440e-003	9.3110e-003
tblVehicleEF	LHD1	6.5010e-003	7.6414e-003
tblVehicleEF	LHD1	2.1400e-004	1.3804e-004
tblVehicleEF	LHD1	8.4400e-004	5.9969e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4610e-003	2.3278e-003
tblVehicleEF	LHD1	6.1750e-003	7.2774e-003
tblVehicleEF	LHD1	1.9600e-004	1.2692e-004
tblVehicleEF	LHD1	9.7200e-004	0.07
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.4300e-004	0.00
tblVehicleEF	LHD1	0.07	0.05

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tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.04	0.08
tblVehicleEF	LHD1	8.1000e-005	7.8030e-005
tblVehicleEF	LHD1	7.0580e-003	6.9340e-003
tblVehicleEF	LHD1	1.0500e-004	1.7742e-004
tblVehicleEF	LHD1	9.7200e-004	0.07
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	6.4300e-004	0.00
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.05	0.09
tblVehicleEF	LHD2	2.6770e-003	2.6154e-003
tblVehicleEF	LHD2	5.1540e-003	4.2521e-003
tblVehicleEF	LHD2	5.0690e-003	9.0936e-003
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.44	0.37
tblVehicleEF	LHD2	0.53	1.26
tblVehicleEF	LHD2	13.00	12.98
tblVehicleEF	LHD2	701.00	748.68
tblVehicleEF	LHD2	7.00	9.33
tblVehicleEF	LHD2	1.6320e-003	1.5826e-003
tblVehicleEF	LHD2	0.06	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.29	0.37
tblVehicleEF	LHD2	0.14	0.19
tblVehicleEF	LHD2	1.4440e-003	1.3811e-003
tblVehicleEF	LHD2	0.09	0.09

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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.1300e-004	6.3736e-005
tblVehicleEF	LHD2	1.3810e-003	1.3213e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6980e-003	2.6484e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.0400e-004	5.8603e-005
tblVehicleEF	LHD2	4.9000e-004	0.04
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.3500e-004	0.00
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	1.2400e-004	1.2438e-004
tblVehicleEF	LHD2	6.7670e-003	7.2092e-003
tblVehicleEF	LHD2	6.9000e-005	9.2273e-005
tblVehicleEF	LHD2	4.9000e-004	0.04
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.3500e-004	0.00
tblVehicleEF	LHD2	0.11	0.09
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	MCY	0.32	0.13
tblVehicleEF	MCY	0.25	0.16
tblVehicleEF	MCY	18.02	10.15
tblVehicleEF	MCY	9.33	7.62

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tblVehicleEF	MCY	212.68	185.77
tblVehicleEF	MCY	59.32	42.23
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	6.3756e-003
tblVehicleEF	MCY	1.15	0.49
tblVehicleEF	MCY	0.27	0.10
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.1880e-003	2.0512e-003
tblVehicleEF	MCY	3.0600e-003	3.6877e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0410e-003	1.9148e-003
tblVehicleEF	MCY	2.8630e-003	3.4539e-003
tblVehicleEF	MCY	0.60	2.98
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.35	0.00
tblVehicleEF	MCY	2.15	0.84
tblVehicleEF	MCY	0.40	3.69
tblVehicleEF	MCY	1.91	1.12
tblVehicleEF	MCY	2.1050e-003	1.8366e-003
tblVehicleEF	MCY	5.8700e-004	4.1747e-004
tblVehicleEF	MCY	0.60	0.07
tblVehicleEF	MCY	0.49	3.54
tblVehicleEF	MCY	0.35	0.00
tblVehicleEF	MCY	2.70	1.03
tblVehicleEF	MCY	0.40	3.69
tblVehicleEF	MCY	2.08	1.22
tblVehicleEF	MDV	1.5960e-003	1.7726e-003
tblVehicleEF	MDV	0.05	0.06

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tblVehicleEF	MDV	0.50	0.56
tblVehicleEF	MDV	2.42	2.77
tblVehicleEF	MDV	310.61	368.66
tblVehicleEF	MDV	65.45	92.23
tblVehicleEF	MDV	4.9900e-003	4.7099e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.18	0.25
tblVehicleEF	MDV	0.04	7.7436e-003
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.1750e-003	1.0631e-003
tblVehicleEF	MDV	1.5330e-003	1.7678e-003
tblVehicleEF	MDV	0.02	2.7103e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.0830e-003	9.7885e-004
tblVehicleEF	MDV	1.4100e-003	1.6255e-003
tblVehicleEF	MDV	0.04	0.19
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	6.1010e-003	6.7564e-003
tblVehicleEF	MDV	0.05	0.14
tblVehicleEF	MDV	0.20	0.29
tblVehicleEF	MDV	3.0690e-003	3.6427e-003
tblVehicleEF	MDV	6.4800e-004	9.1179e-004
tblVehicleEF	MDV	0.04	0.19
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	8.8350e-003	9.8312e-003
tblVehicleEF	MDV	0.05	0.14

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tblVehicleEF	MDV	0.22	0.32
tblVehicleEF	MH	4.8570e-003	6.4472e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.33	0.48
tblVehicleEF	MH	1.68	2.07
tblVehicleEF	MH	1,371.07	1,663.26
tblVehicleEF	MH	15.87	20.71
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.88	1.07
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	2.3300e-004	2.7264e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2840e-003	3.3287e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	2.1400e-004	2.5068e-004
tblVehicleEF	MH	0.20	16.16
tblVehicleEF	MH	0.02	4.35
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.03	0.05
tblVehicleEF	MH	4.5490e-003	0.11
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.5700e-004	2.0472e-004
tblVehicleEF	MH	0.20	16.16
tblVehicleEF	MH	0.02	4.35

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tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.04	0.06
tblVehicleEF	MH	4.5490e-003	0.11
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MHD	3.9080e-003	0.02
tblVehicleEF	MHD	1.1440e-003	9.9981e-003
tblVehicleEF	MHD	8.9470e-003	0.01
tblVehicleEF	MHD	0.38	0.66
tblVehicleEF	MHD	0.16	0.24
tblVehicleEF	MHD	0.96	1.14
tblVehicleEF	MHD	59.10	142.10
tblVehicleEF	MHD	1,005.67	1,209.51
tblVehicleEF	MHD	9.13	10.21
tblVehicleEF	MHD	8.3740e-003	0.02
tblVehicleEF	MHD	0.13	0.14
tblVehicleEF	MHD	8.0500e-003	7.8237e-003
tblVehicleEF	MHD	0.31	0.75
tblVehicleEF	MHD	1.30	0.79
tblVehicleEF	MHD	1.67	1.27
tblVehicleEF	MHD	1.7800e-004	1.1896e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2490e-003	8.4549e-003
tblVehicleEF	MHD	1.1500e-004	1.2620e-004
tblVehicleEF	MHD	1.7000e-004	1.1376e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9710e-003	8.0774e-003
tblVehicleEF	MHD	1.0500e-004	1.1603e-004

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tblVehicleEF	MHD	2.3500e-004	0.02
tblVehicleEF	MHD	0.01	5.2975e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	1.6200e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	5.6100e-004	1.3119e-003
tblVehicleEF	MHD	9.5990e-003	0.01
tblVehicleEF	MHD	9.0000e-005	1.0090e-004
tblVehicleEF	MHD	2.3500e-004	0.02
tblVehicleEF	MHD	0.01	5.2975e-003
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	1.6200e-004	0.00
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.01	0.04
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	OBUS	6.7430e-003	6.7554e-003
tblVehicleEF	OBUS	2.1650e-003	8.5094e-003
tblVehicleEF	OBUS	0.01	9.3834e-003
tblVehicleEF	OBUS	0.65	0.50
tblVehicleEF	OBUS	0.27	0.19
tblVehicleEF	OBUS	1.42	0.96
tblVehicleEF	OBUS	104.84	90.21
tblVehicleEF	OBUS	1,245.43	1,257.65
tblVehicleEF	OBUS	12.47	8.65
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.01	9.0693e-003

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tblVehicleEF	OBUS	0.46	0.37
tblVehicleEF	OBUS	1.47	0.69
tblVehicleEF	OBUS	1.22	1.12
tblVehicleEF	OBUS	1.5000e-004	2.2325e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.7860e-003	8.0356e-003
tblVehicleEF	OBUS	1.4600e-004	9.3364e-005
tblVehicleEF	OBUS	1.4300e-004	2.1346e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.4360e-003	7.6814e-003
tblVehicleEF	OBUS	1.3400e-004	8.5845e-005
tblVehicleEF	OBUS	7.3900e-004	0.03
tblVehicleEF	OBUS	0.01	7.6904e-003
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.9500e-004	8.4873e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.2300e-004	8.5500e-005
tblVehicleEF	OBUS	7.3900e-004	0.03
tblVehicleEF	OBUS	0.01	7.6904e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.04

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tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	SBUS	0.13	0.10
tblVehicleEF	SBUS	7.3810e-003	0.08
tblVehicleEF	SBUS	0.01	8.8296e-003
tblVehicleEF	SBUS	4.70	2.59
tblVehicleEF	SBUS	0.67	1.18
tblVehicleEF	SBUS	1.72	1.23
tblVehicleEF	SBUS	370.42	205.21
tblVehicleEF	SBUS	935.90	927.01
tblVehicleEF	SBUS	9.22	6.32
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.6340e-003	6.1014e-003
tblVehicleEF	SBUS	2.83	1.25
tblVehicleEF	SBUS	3.42	2.08
tblVehicleEF	SBUS	0.83	0.50
tblVehicleEF	SBUS	2.7720e-003	1.1174e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	9.9310e-003	9.9820e-003
tblVehicleEF	SBUS	0.02	9.5974e-003
tblVehicleEF	SBUS	1.5200e-004	8.6184e-005
tblVehicleEF	SBUS	2.6520e-003	1.0678e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.4830e-003	2.4955e-003
tblVehicleEF	SBUS	0.02	9.1579e-003
tblVehicleEF	SBUS	1.4000e-004	7.9243e-005
tblVehicleEF	SBUS	7.5000e-004	0.05
tblVehicleEF	SBUS	9.0470e-003	0.01
tblVehicleEF	SBUS	0.57	0.30

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tblVehicleEF	SBUS	3.9700e-004	0.00
tblVehicleEF	SBUS	0.08	0.06
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	3.5540e-003	1.8766e-003
tblVehicleEF	SBUS	9.0210e-003	8.6844e-003
tblVehicleEF	SBUS	9.1000e-005	6.2509e-005
tblVehicleEF	SBUS	7.5000e-004	0.05
tblVehicleEF	SBUS	9.0470e-003	0.01
tblVehicleEF	SBUS	0.83	0.47
tblVehicleEF	SBUS	3.9700e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	UBUS	1.52	0.55
tblVehicleEF	UBUS	0.01	5.1180e-003
tblVehicleEF	UBUS	11.42	6.31
tblVehicleEF	UBUS	0.82	0.90
tblVehicleEF	UBUS	1,598.09	1,055.39
tblVehicleEF	UBUS	8.92	5.40
tblVehicleEF	UBUS	0.26	0.16
tblVehicleEF	UBUS	7.2430e-003	7.9693e-003
tblVehicleEF	UBUS	0.69	0.25
tblVehicleEF	UBUS	0.10	0.05
tblVehicleEF	UBUS	0.08	0.14
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	5.0090e-003	4.6880e-003
tblVehicleEF	UBUS	6.2000e-005	2.4687e-005
tblVehicleEF	UBUS	0.03	0.05

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tblVehicleEF	UBUS	7.8010e-003	0.01
tblVehicleEF	UBUS	4.7900e-003	4.4793e-003
tblVehicleEF	UBUS	5.7000e-005	2.2699e-005
tblVehicleEF	UBUS	7.1500e-004	0.01
tblVehicleEF	UBUS	0.01	4.5430e-003
tblVehicleEF	UBUS	5.6000e-004	0.00
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	5.0710e-003	0.01
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	0.01	8.4562e-003
tblVehicleEF	UBUS	8.8000e-005	5.3425e-005
tblVehicleEF	UBUS	7.1500e-004	0.01
tblVehicleEF	UBUS	0.01	4.5430e-003
tblVehicleEF	UBUS	5.6000e-004	0.00
tblVehicleEF	UBUS	1.55	0.61
tblVehicleEF	UBUS	5.0710e-003	0.01
tblVehicleEF	UBUS	0.07	0.02
tblVehicleTrips	ST_TR	6.22	2.74
tblVehicleTrips	ST_TR	1.90	1.52
tblVehicleTrips	SU_TR	5.84	2.57
tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	762.28	686.22
tblVehicleTrips	WD_TR	47.62	20.97
tblVehicleTrips	WD_TR	72.05	28.82
tblVehicleTrips	WD_TR	11.26	9.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

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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	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

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					
2024	0.3066	2.8136	2.9939	6.1100e-003	0.4026	0.1254	0.5280	0.1308	0.1173	0.2481	0.0000	532.0508	532.0508	0.1431	0.0000	535.6270
2025	1.3718	2.7504	3.5340	6.4300e-003	0.0000	0.1101	0.1101	0.0000	0.1065	0.1065	0.0000	544.2756	544.2756	0.0797	0.0000	546.2689
2026	4.5107	0.6868	0.9422	1.5500e-003	0.0000	0.0276	0.0276	0.0000	0.0258	0.0258	0.0000	133.7176	133.7176	0.0376	0.0000	134.6587
Maximum	**4.5107**	**2.8136**	**3.5340**	**6.4300e-003**	**0.4026**	**0.1254**	**0.5280**	**0.1308**	**0.1173**	**0.2481**	**0.0000**	**544.2756**	**544.2756**	**0.1431**	**0.0000**	**546.2689**

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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					
2024	0.1015	2.0291	3.6775	6.1100e-003	0.1812	0.0158	0.1970	0.0589	0.0158	0.0747	0.0000	532.0502	532.0502	0.1431	0.0000	535.6264
2025	1.1642	2.4952	3.8957	6.4300e-003	0.0000	0.0335	0.0335	0.0000	0.0335	0.0335	0.0000	544.2750	544.2750	0.0797	0.0000	546.2682
2026	4.4689	0.6993	1.0592	1.5500e-003	0.0000	0.0145	0.0145	0.0000	0.0145	0.0145	0.0000	133.7174	133.7174	0.0376	0.0000	134.6585
Maximum	**4.4689**	**2.4952**	**3.8957**	**6.4300e-003**	**0.1812**	**0.0335**	**0.1970**	**0.0589**	**0.0335**	**0.0747**	**0.0000**	**544.2750**	**544.2750**	**0.1431**	**0.0000**	**546.2682**

	ROG	NOx	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	**7.35**	**16.43**	**-15.56**	**0.00**	**55.00**	**75.72**	**63.19**	**55.00**	**74.40**	**67.73**	**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	**1-1-2024**	**3-31-2024**	0.1141	0.1004
2	**4-1-2024**	**6-30-2024**	0.8260	0.6303
3	**7-1-2024**	**9-30-2024**	1.4214	0.7951
4	**10-1-2024**	**12-31-2024**	0.7681	0.6132
5	**1-1-2025**	**3-31-2025**	0.9455	0.7885
6	**4-1-2025**	**6-30-2025**	0.8276	0.6879
7	**7-1-2025**	**9-30-2025**	0.8020	0.6690
8	**10-1-2025**	**12-31-2025**	1.5506	1.5176
9	**1-1-2026**	**3-31-2026**	3.1092	3.0736
10	**4-1-2026**	**6-30-2026**	2.0456	2.0530

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11	**7-1-2026**	**9-30-2026**	0.0295	0.0288
		Highest	3.1092	3.0736

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	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Energy	0.0661	0.6010	0.5048	3.6100e-003		0.0457	0.0457		0.0457	0.0457	0.0000	654.2599	654.2599	0.0125	0.0120	658.1478
Mobile	2.1736	1.7964	14.7928	0.0423	3.8021	0.0257	3.8279	0.9491	0.0240	0.9730	0.0000	3,922.0105	3,922.0105	0.2005	0.1898	3,983.5866
Stationary	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Waste						0.0000	0.0000		0.0000	0.0000	13.1822	0.0000	13.1822	0.7791	0.0000	32.6584
Water						0.0000	0.0000		0.0000	0.0000	85.4893	0.0000	85.4893	0.2943	0.1859	148.2470
Total	**4.7338**	**2.5864**	**16.3007**	**0.0478**	**3.8021**	**0.0790**	**3.8812**	**0.9491**	**0.0773**	**1.0263**	**98.6716**	**4,755.0574**	**4,853.7289**	**1.3115**	**0.3877**	**5,002.0560**

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					

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Area	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Energy	0.0661	0.6010	0.5048	3.6100e-003		0.0457	0.0457		0.0457	0.0457	0.0000	654.2599	654.2599	0.0125	0.0120	658.1478
Mobile	2.1736	1.7964	14.7928	0.0423	3.8021	0.0257	3.8279	0.9491	0.0240	0.9730	0.0000	3,922.0105	3,922.0105	0.2005	0.1898	3,983.5866
Stationary	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Waste						0.0000	0.0000		0.0000	0.0000	13.1822	0.0000	13.1822	0.7791	0.0000	32.6584
Water						0.0000	0.0000		0.0000	0.0000	85.4893	0.0000	85.4893	0.2943	0.1859	148.2470
Total	**4.7338**	**2.5864**	**16.3007**	**0.0478**	**3.8021**	**0.0790**	**3.8812**	**0.9491**	**0.0773**	**1.0263**	**98.6716**	**4,755.0574**	**4,853.7289**	**1.3115**	**0.3877**	**5,002.0560**

	ROG	NOx	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	Abatement	Site Preparation	1/1/2024	3/22/2024	5	60	
2	Demolition	Demolition	3/23/2024	5/31/2024	5	50	
3	Site Utilities	Site Preparation	6/1/2024	1/24/2025	5	170	
4	Grade Side	Grading	6/1/2024	9/27/2024	5	85	
5	Drill Displacement Piles	Trenching	8/13/2024	1/27/2025	5	120	
6	Dewatering	Site Preparation	10/5/2024	10/10/2024	5	4	
7	Shoring and Excavation	Trenching	10/5/2024	11/22/2024	5	35	
8	Concrete/Rebar/Waterproofing	Building Construction	11/30/2024	2/21/2025	5	60	
9	Structural Steel	Building Construction	2/8/2025	8/15/2025	5	135	

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10	Concrete Decks	Building Construction	6/14/2025	12/5/2025	5	125
11	Fireproofing	Building Construction	9/13/2025	3/6/2026	5	125
12	Exterior Skin	Architectural Coating	10/4/2025	5/22/2026	5	165
13	Landscaping and Hardscape	Paving	12/20/2025	7/31/2026	5	160
14	MEP	Building Construction	12/27/2025	1/30/2026	5	25
15	Roofing	Building Construction	1/3/2026	3/13/2026	5	50
16	Framing/Drywall	Building Construction	2/7/2026	3/13/2026	5	25
17	Elevators	Building Construction	2/14/2026	4/24/2026	5	50
18	Other Interior Finishes	Architectural Coating	2/21/2026	5/1/2026	5	50
19	Startup & Commissioning	Paving	6/20/2026	7/3/2026	5	10

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 286.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 758,750; Non-Residential Outdoor: 252,917; Striped Parking Area: 30,269

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Abatement	Air Compressors	1	6.00	78	0.48
Abatement	Forklifts	1	4.00	89	0.20
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	4	4.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
Demolition	Excavators	2	8.00	158	0.38
Demolition	Signal Boards	1	8.00	6	0.82
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	6.00	64	0.46
Site Utilities	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

Site Utilities	Sweepers/Scrubbers	1	2.10	64	0.46
Site Utilities	Trenchers	1	3.20	78	0.50
Grade Side	Excavators	1	6.00	158	0.38
Grade Side	Rubber Tired Dozers	1	6.00	247	0.40
Grade Side	Scrapers	4	6.00	367	0.48
Grade Side	Signal Boards	2	8.00	6	0.82
Grade Side	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drill Displacement Piles	Bore/Drill Rigs	1	6.00	221	0.50
Drill Displacement Piles	Forklifts	1	2.00	89	0.20
Drill Displacement Piles	Rubber Tired Dozers	1	6.00	247	0.40
Drill Displacement Piles	Signal Boards	1	8.00	6	0.82
Drill Displacement Piles	Sweepers/Scrubbers	1	2.00	64	0.46
Dewatering	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Excavators	2	8.00	158	0.38
Shoring and Excavation	Forklifts	1	2.50	89	0.20
Concrete/Rebar/Waterproofing	Cranes	1	6.00	231	0.29
Concrete/Rebar/Waterproofing	Pumps	4	12.00	84	0.74
Concrete/Rebar/Waterproofing	Skid Steer Loaders	1	8.00	65	0.37
Concrete/Rebar/Waterproofing	Sweepers/Scrubbers	1	12.00	64	0.46
Structural Steel	Aerial Lifts	3	5.30	63	0.31
Structural Steel	Cranes	2	8.00	231	0.29
Structural Steel	Forklifts	2	6.00	89	0.20
Structural Steel	Generator Sets	4	4.70	84	0.74
Structural Steel	Signal Boards	2	8.00	6	0.82
Structural Steel	Sweepers/Scrubbers	1	1.80	64	0.46
Structural Steel	Welders	4	8.00	46	0.45
Concrete Decks	Concrete/Industrial Saws	4	5.00	81	0.73
Concrete Decks	Forklifts	2	6.00	89	0.20

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

Concrete Decks	Pumps	2	5.80	84	0.74
Concrete Decks	Signal Boards	2	8.00	6	0.82
Fireproofing	Forklifts	1	4.00	89	0.20
Fireproofing	Other General Industrial Equipment	1	6.40	88	0.34
Exterior Skin	Aerial Lifts	4	8.00	63	0.31
Exterior Skin	Cranes	1	3.40	231	0.29
Exterior Skin	Forklifts	1	2.50	89	0.20
Landscaping and Hardscape	Forklifts	1	0.50	89	0.20
Landscaping and Hardscape	Pavers	1	1.80	130	0.42
Landscaping and Hardscape	Pressure Washers	1	0.50	13	0.30
Landscaping and Hardscape	Pumps	1	2.00	84	0.74
Landscaping and Hardscape	Tractors/Loaders/Backhoes	1	8.00	97	0.37
MEP	Cranes	1	6.40	231	0.29
MEP	Forklifts	1	2.60	89	0.20
MEP	Sweepers/Scrubbers	1	8.00	64	0.46
Roofing	Cranes	1	0.70	231	0.29
Roofing	Other Construction Equipment	1	6.00	172	0.42
Framing/Drywall	Cranes	1	6.40	231	0.29
Framing/Drywall	Forklifts	1	2.90	89	0.20
Framing/Drywall	Sweepers/Scrubbers	1	8.00	64	0.46
Elevators	Forklifts	1	0.60	89	0.20
Elevators	Sweepers/Scrubbers	1	4.00	64	0.46
Elevators	Welders	2	8.00	46	0.45
Other Interior Finishes	Cement and Mortar Mixers	2	6.00	9	0.56
Other Interior Finishes	Forklifts	1	1.90	89	0.20
Other Interior Finishes	Sweepers/Scrubbers	1	4.00	64	0.46
Startup & Commissioning	Forklifts	1	4.00	89	0.20

Trips and VMT

20-124 Alexandria Phase 2 - San Mateo County, Annual

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
Abatement	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grade Side	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drill Displacement Piles	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Dewatering	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Shoring and Excavation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete/Rebar/Waterproofing	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural Steel	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Decks	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fireproofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Skin	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Hardscape	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
MEP	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Roofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Framing/Drywall	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Elevators	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Other Interior Finishes	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Startup & Commissioning	1	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 Abatement - 2024

20-124 Alexandria Phase 2 - 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 On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0498	0.0714	1.1000e-004		2.5900e-003	2.5900e-003		2.5300e-003	2.5300e-003	0.0000	9.6741	9.6741	1.0800e-003	0.0000	9.7012
Total	**6.8400e-003**	**0.0498**	**0.0714**	**1.1000e-004**	**0.0000**	**2.5900e-003**	**2.5900e-003**	**0.0000**	**2.5300e-003**	**2.5300e-003**	**0.0000**	**9.6741**	**9.6741**	**1.0800e-003**	**0.0000**	**9.7012**

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

20-124 Alexandria Phase 2 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0419	0.0724	1.1000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	9.6741	9.6741	1.0800e-003	0.0000	9.7012
Total	**2.1500e-003**	**0.0419**	**0.0724**	**1.1000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**9.6741**	**9.6741**	**1.0800e-003**	**0.0000**	**9.7012**

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 Demolition - 2024

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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					0.0513	0.0000	0.0513	7.7700e-003	0.0000	7.7700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0525	0.4050	0.6602	1.0700e-003		0.0190	0.0190		0.0185	0.0185	0.0000	92.3030	92.3030	0.0146	0.0000	92.6686
Total	**0.0525**	**0.4050**	**0.6602**	**1.0700e-003**	**0.0513**	**0.0190**	**0.0703**	**7.7700e-003**	**0.0185**	**0.0263**	**0.0000**	**92.3030**	**92.3030**	**0.0146**	**0.0000**	**92.6686**

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

20-124 Alexandria Phase 2 - 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					0.0231	0.0000	0.0231	3.5000e-003	0.0000	3.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.4278	0.7066	1.0700e-003		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	92.3029	92.3029	0.0146	0.0000	92.6685
Total	**0.0187**	**0.4278**	**0.7066**	**1.0700e-003**	**0.0231**	**4.7500e-003**	**0.0278**	**3.5000e-003**	**4.7500e-003**	**8.2500e-003**	**0.0000**	**92.3029**	**92.3029**	**0.0146**	**0.0000**	**92.6685**

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 Site Utilities - 2024

Unmitigated Construction On-Site

Date: 3/27/2024 4:37 PM

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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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0275	0.2348	0.3652	5.5000e-004		0.0139	0.0139		0.0127	0.0127	0.0000	47.9693	47.9693	0.0155	0.0000	48.3571
Total	**0.0275**	**0.2348**	**0.3652**	**5.5000e-004**	**0.0000**	**0.0139**	**0.0139**	**0.0000**	**0.0127**	**0.0127**	**0.0000**	**47.9693**	**47.9693**	**0.0155**	**0.0000**	**48.3571**

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

20-124 Alexandria Phase 2 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3700e-003	0.2462	0.4135	5.5000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	47.9692	47.9692	0.0155	0.0000	48.3571
Total	**8.3700e-003**	**0.2462**	**0.4135**	**5.5000e-004**	**0.0000**	**1.9700e-003**	**1.9700e-003**	**0.0000**	**1.9700e-003**	**1.9700e-003**	**0.0000**	**47.9692**	**47.9692**	**0.0155**	**0.0000**	**48.3571**

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 Site Utilities - 2025

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0100e-003	0.0251	0.0431	6.0000e-005		1.4400e-003	1.4400e-003		1.3300e-003	1.3300e-003	0.0000	5.6818	5.6818	1.8400e-003	0.0000	5.7277
Total	**3.0100e-003**	**0.0251**	**0.0431**	**6.0000e-005**	**0.0000**	**1.4400e-003**	**1.4400e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**5.6818**	**5.6818**	**1.8400e-003**	**0.0000**	**5.7277**

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

20-124 Alexandria Phase 2 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9000e-004	0.0292	0.0490	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	5.6818	5.6818	1.8400e-003	0.0000	5.7277
Total	**9.9000e-004**	**0.0292**	**0.0490**	**6.0000e-005**	**0.0000**	**2.3000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**2.3000e-004**	**0.0000**	**5.6818**	**5.6818**	**1.8400e-003**	**0.0000**	**5.7277**

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 Grade Side - 2024

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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					0.3513	0.0000	0.3513	0.1230	0.0000	0.1230	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1419	1.4068	1.1803	2.7000e-003		0.0581	0.0581		0.0535	0.0535	0.0000	235.3762	235.3762	0.0753	0.0000	237.2584
Total	**0.1419**	**1.4068**	**1.1803**	**2.7000e-003**	**0.3513**	**0.0581**	**0.4094**	**0.1230**	**0.0535**	**0.1765**	**0.0000**	**235.3762**	**235.3762**	**0.0753**	**0.0000**	**237.2584**

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

20-124 Alexandria Phase 2 - 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					0.1581	0.0000	0.1581	0.0554	0.0000	0.0554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0441	0.7704	1.4983	2.7000e-003		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	235.3759	235.3759	0.0753	0.0000	237.2581
Total	**0.0441**	**0.7704**	**1.4983**	**2.7000e-003**	**0.1581**	**4.3100e-003**	**0.1624**	**0.0554**	**4.3100e-003**	**0.0597**	**0.0000**	**235.3759**	**235.3759**	**0.0753**	**0.0000**	**237.2581**

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 Drill Displacement Piles - 2024

Unmitigated Construction On-Site

Date: 3/27/2024 4:37 PM

20-124 Alexandria Phase 2 - 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	0.0406	0.3916	0.2496	7.7000e-004		0.0171	0.0171		0.0158	0.0158	0.0000	66.7091	66.7091	0.0211	0.0000	67.2361
Total	**0.0406**	**0.3916**	**0.2496**	**7.7000e-004**		**0.0171**	**0.0171**		**0.0158**	**0.0158**	**0.0000**	**66.7091**	**66.7091**	**0.0211**	**0.0000**	**67.2361**

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

20-124 Alexandria Phase 2 - 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	0.0124	0.2068	0.4024	7.7000e-004		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	66.7091	66.7091	0.0211	0.0000	67.2360
Total	**0.0124**	**0.2068**	**0.4024**	**7.7000e-004**		**1.8800e-003**	**1.8800e-003**		**1.8800e-003**	**1.8800e-003**	**0.0000**	**66.7091**	**66.7091**	**0.0211**	**0.0000**	**67.2360**

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 Drill Displacement Piles - 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

20-124 Alexandria Phase 2 - 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	7.2300e-003	0.0694	0.0459	1.4000e-004		2.9400e-003	2.9400e-003		2.7100e-003	2.7100e-003	0.0000	12.5484	12.5484	3.9700e-003	0.0000	12.6475
Total	**7.2300e-003**	**0.0694**	**0.0459**	**1.4000e-004**		**2.9400e-003**	**2.9400e-003**		**2.7100e-003**	**2.7100e-003**	**0.0000**	**12.5484**	**12.5484**	**3.9700e-003**	**0.0000**	**12.6475**

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					

20-124 Alexandria Phase 2 - 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	2.3300e-003	0.0389	0.0757	1.4000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	12.5484	12.5484	3.9700e-003	0.0000	12.6475
Total	**2.3300e-003**	**0.0389**	**0.0757**	**1.4000e-004**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**12.5484**	**12.5484**	**3.9700e-003**	**0.0000**	**12.6475**

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 Dewatering - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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	4.2000e-004	3.8000e-003	4.0800e-003	2.0000e-005		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	1.6644	1.6644	5.4000e-004	0.0000	1.6779
Total	**4.2000e-004**	**3.8000e-003**	**4.0800e-003**	**2.0000e-005**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**1.6644**	**1.6644**	**5.4000e-004**	**0.0000**	**1.6779**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

20-124 Alexandria Phase 2 - 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	3.1000e-004	5.0300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.6644	1.6644	5.4000e-004	0.0000	1.6779
Total	**3.1000e-004**	**5.0300e-003**	**0.0101**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.6644**	**1.6644**	**5.4000e-004**	**0.0000**	**1.6779**

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**

3.8 Shoring and Excavation - 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	0.0105	0.0872	0.1562	3.6000e-004		3.7900e-003	3.7900e-003		3.4900e-003	3.4900e-003	0.0000	31.1824	31.1824	0.0101	0.0000	31.4345

20-124 Alexandria Phase 2 - San Mateo County, Annual

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

Total	**0.0105**	**0.0872**	**0.1562**	**3.6000e-004**		**3.7900e-003**	**3.7900e-003**		**3.4900e-003**	**3.4900e-003**	**0.0000**	**31.1824**	**31.1824**	**0.0101**	**0.0000**	**31.4345**

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	5.1400e-003	0.1274	0.2322	3.6000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.1823	31.1823	0.0101	0.0000	31.4345
Total	**5.1400e-003**	**0.1274**	**0.2322**	**3.6000e-004**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**31.1823**	**31.1823**	**0.0101**	**0.0000**	**31.4345**

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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**

3.9 Concrete/Rebar/Waterproofing - 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	0.0265	0.2347	0.3070	5.5000e-004		0.0109	0.0109		0.0106	0.0106	0.0000	47.1723	47.1723	4.8300e-003	0.0000	47.2932
Total	**0.0265**	**0.2347**	**0.3070**	**5.5000e-004**		**0.0109**	**0.0109**		**0.0106**	**0.0106**	**0.0000**	**47.1723**	**47.1723**	**4.8300e-003**	**0.0000**	**47.2932**

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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	0.0103	0.2037	0.3420	5.5000e-004		2.1400e-003	2.1400e-003		2.1400e-003	2.1400e-003	0.0000	47.1723	47.1723	4.8300e-003	0.0000	47.2931
Total	**0.0103**	**0.2037**	**0.3420**	**5.5000e-004**		**2.1400e-003**	**2.1400e-003**		**2.1400e-003**	**2.1400e-003**	**0.0000**	**47.1723**	**47.1723**	**4.8300e-003**	**0.0000**	**47.2931**

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**

3.9 Concrete/Rebar/Waterproofing - 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					
Off-Road	0.0427	0.3785	0.5287	9.4000e-004		0.0162	0.0162		0.0159	0.0159	0.0000	81.4781	81.4781	8.1200e-003	0.0000	81.6811
Total	**0.0427**	**0.3785**	**0.5287**	**9.4000e-004**		**0.0162**	**0.0162**		**0.0159**	**0.0159**	**0.0000**	**81.4781**	**81.4781**	**8.1200e-003**	**0.0000**	**81.6811**

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	0.0178	0.3518	0.5908	9.4000e-004		3.6900e-003	3.6900e-003		3.6900e-003	3.6900e-003	0.0000	81.4780	81.4780	8.1200e-003	0.0000	81.6810
Total	**0.0178**	**0.3518**	**0.5908**	**9.4000e-004**		**3.6900e-003**	**3.6900e-003**		**3.6900e-003**	**3.6900e-003**	**0.0000**	**81.4780**	**81.4780**	**8.1200e-003**	**0.0000**	**81.6810**

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**

3.10 Structural Steel - 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					
Off-Road	0.1673	1.3934	1.5915	3.0300e-003		0.0531	0.0531		0.0511	0.0511	0.0000	251.7348	251.7348	0.0428	0.0000	252.8048
Total	**0.1673**	**1.3934**	**1.5915**	**3.0300e-003**		**0.0531**	**0.0531**		**0.0511**	**0.0511**	**0.0000**	**251.7348**	**251.7348**	**0.0428**	**0.0000**	**252.8048**

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	0.0537	1.2427	1.7801	3.0300e-003		0.0216	0.0216		0.0216	0.0216	0.0000	251.7345	251.7345	0.0428	0.0000	252.8045
Total	**0.0537**	**1.2427**	**1.7801**	**3.0300e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**	**0.0000**	**251.7345**	**251.7345**	**0.0428**	**0.0000**	**252.8045**

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**

3.11 Concrete Decks - 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					
Off-Road	0.0874	0.6961	1.0501	1.8000e-003		0.0295	0.0295		0.0292	0.0292	0.0000	153.4128	153.4128	0.0104	0.0000	153.6733
Total	**0.0874**	**0.6961**	**1.0501**	**1.8000e-003**		**0.0295**	**0.0295**		**0.0292**	**0.0292**	**0.0000**	**153.4128**	**153.4128**	**0.0104**	**0.0000**	**153.6733**

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	0.0321	0.6243	1.0794	1.8000e-003		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	153.4126	153.4126	0.0104	0.0000	153.6731
Total	**0.0321**	**0.6243**	**1.0794**	**1.8000e-003**		**2.3300e-003**	**2.3300e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**153.4126**	**153.4126**	**0.0104**	**0.0000**	**153.6731**

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**

3.12 Fireproofing - 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					
Off-Road	5.9300e-003	0.0561	0.0816	1.1000e-004		2.8000e-003	2.8000e-003		2.5700e-003	2.5700e-003	0.0000	9.6386	9.6386	3.1200e-003	0.0000	9.7166
Total	**5.9300e-003**	**0.0561**	**0.0816**	**1.1000e-004**		**2.8000e-003**	**2.8000e-003**		**2.5700e-003**	**2.5700e-003**	**0.0000**	**9.6386**	**9.6386**	**3.1200e-003**	**0.0000**	**9.7166**

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**

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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 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	2.4800e-003	0.0483	0.0836	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	9.6386	9.6386	3.1200e-003	0.0000	9.7166
Total	**2.4800e-003**	**0.0483**	**0.0836**	**1.1000e-004**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**9.6386**	**9.6386**	**3.1200e-003**	**0.0000**	**9.7166**

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**

20-124 Alexandria Phase 2 - San Mateo County, Annual

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

3.12 Fireproofing - 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	3.5800e-003	0.0338	0.0492	7.0000e-005		1.6900e-003	1.6900e-003		1.5500e-003	1.5500e-003	0.0000	5.8079	5.8079	1.8800e-003	0.0000	5.8549
Total	**3.5800e-003**	**0.0338**	**0.0492**	**7.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**5.8079**	**5.8079**	**1.8800e-003**	**0.0000**	**5.8549**

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

20-124 Alexandria Phase 2 - 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	1.5000e-003	0.0291	0.0504	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8079	5.8079	1.8800e-003	0.0000	5.8548
Total	**1.5000e-003**	**0.0291**	**0.0504**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8079**	**5.8079**	**1.8800e-003**	**0.0000**	**5.8548**

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**

3.13 Exterior Skin - 2025

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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					
Archit. Coating	1.0473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3300e-003	0.1160	0.1719	3.0000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	26.6972	26.6972	8.6300e-003	0.0000	26.9130
Total	**1.0566**	**0.1160**	**0.1719**	**3.0000e-004**		**3.3600e-003**	**3.3600e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**26.6972**	**26.6972**	**8.6300e-003**	**0.0000**	**26.9130**

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

20-124 Alexandria Phase 2 - 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					
Archit. Coating	1.0473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8100e-003	0.1459	0.2131	3.0000e-004		5.0100e-003	5.0100e-003		5.0100e-003	5.0100e-003	0.0000	26.6971	26.6971	8.6300e-003	0.0000	26.9130
Total	**1.0541**	**0.1459**	**0.2131**	**3.0000e-004**		**5.0100e-003**	**5.0100e-003**		**5.0100e-003**	**5.0100e-003**	**0.0000**	**26.6971**	**26.6971**	**8.6300e-003**	**0.0000**	**26.9130**

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**

3.13 Exterior Skin - 2026

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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					
Archit. Coating	1.6956					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1879	0.2783	4.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	43.2240	43.2240	0.0140	0.0000	43.5734
Total	**1.7107**	**0.1879**	**0.2783**	**4.9000e-004**		**5.4300e-003**	**5.4300e-003**		**5.0000e-003**	**5.0000e-003**	**0.0000**	**43.2240**	**43.2240**	**0.0140**	**0.0000**	**43.5734**

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

20-124 Alexandria Phase 2 - 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					
Archit. Coating	1.6956					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.2363	0.3451	4.9000e-004		8.1100e-003	8.1100e-003		8.1100e-003	8.1100e-003	0.0000	43.2239	43.2239	0.0140	0.0000	43.5734
Total	**1.7066**	**0.2363**	**0.3451**	**4.9000e-004**		**8.1100e-003**	**8.1100e-003**		**8.1100e-003**	**8.1100e-003**	**0.0000**	**43.2239**	**43.2239**	**0.0140**	**0.0000**	**43.5734**

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**

3.14 Landscaping and Hardscape - 2025

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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	1.0000e-003	9.4700e-003	0.0156	2.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	2.0752	2.0752	5.1000e-004	0.0000	2.0879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-003**	**9.4700e-003**	**0.0156**	**2.0000e-005**		**4.0000e-004**	**4.0000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**2.0752**	**2.0752**	**5.1000e-004**	**0.0000**	**2.0879**

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

20-124 Alexandria Phase 2 - 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	4.6000e-004	9.8000e-003	0.0169	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.0752	2.0752	5.1000e-004	0.0000	2.0879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.6000e-004**	**9.8000e-003**	**0.0169**	**2.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.0752**	**2.0752**	**5.1000e-004**	**0.0000**	**2.0879**

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**

3.14 Landscaping and Hardscape - 2026

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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	0.0191	0.1799	0.2961	4.5000e-004		7.5600e-003	7.5600e-003		7.1100e-003	7.1100e-003	0.0000	39.4291	39.4291	9.6800e-003	0.0000	39.6710
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0191**	**0.1799**	**0.2961**	**4.5000e-004**		**7.5600e-003**	**7.5600e-003**		**7.1100e-003**	**7.1100e-003**	**0.0000**	**39.4291**	**39.4291**	**9.6800e-003**	**0.0000**	**39.6710**

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

20-124 Alexandria Phase 2 - 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	8.7400e-003	0.1861	0.3215	4.5000e-004		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	39.4290	39.4290	9.6800e-003	0.0000	39.6709
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.7400e-003**	**0.1861**	**0.3215**	**4.5000e-004**		**7.0000e-004**	**7.0000e-004**		**7.0000e-004**	**7.0000e-004**	**0.0000**	**39.4290**	**39.4290**	**9.6800e-003**	**0.0000**	**39.6709**

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**

3.15 MEP - 2025

Unmitigated Construction On-Site

20-124 Alexandria Phase 2 - 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	6.5000e-004	6.3900e-003	5.4900e-003	1.0000e-005		3.1000e-004	3.1000e-004		2.8000e-004	2.8000e-004	0.0000	1.0088	1.0088	3.3000e-004	0.0000	1.0170
Total	**6.5000e-004**	**6.3900e-003**	**5.4900e-003**	**1.0000e-005**		**3.1000e-004**	**3.1000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**1.0088**	**1.0088**	**3.3000e-004**	**0.0000**	**1.0170**

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

20-124 Alexandria Phase 2 - 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	2.2000e-004	4.2900e-003	7.1300e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.0088	1.0088	3.3000e-004	0.0000	1.0170
Total	**2.2000e-004**	**4.2900e-003**	**7.1300e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0088**	**1.0088**	**3.3000e-004**	**0.0000**	**1.0170**

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**

3.15 MEP - 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					

20-124 Alexandria Phase 2 - 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	4.7900e-003	0.0469	0.0403	8.0000e-005		2.2500e-003	2.2500e-003		2.0700e-003	2.0700e-003	0.0000	7.3979	7.3979	2.3900e-003	0.0000	7.4578
Total	**4.7900e-003**	**0.0469**	**0.0403**	**8.0000e-005**		**2.2500e-003**	**2.2500e-003**		**2.0700e-003**	**2.0700e-003**	**0.0000**	**7.3979**	**7.3979**	**2.3900e-003**	**0.0000**	**7.4578**

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	1.6400e-003	0.0315	0.0523	8.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	7.3979	7.3979	2.3900e-003	0.0000	7.4577

20-124 Alexandria Phase 2 - San Mateo County, Annual

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

Total	**1.6400e-003**	**0.0315**	**0.0523**	**8.0000e-005**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**7.3979**	**7.3979**	**2.3900e-003**	**0.0000**	**7.4577**

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**

3.16 Roofing - 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	6.2900e-003	0.0587	0.0787	1.3000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**6.2900e-003**	**0.0587**	**0.0787**	**1.3000e-004**		**2.9700e-003**	**2.9700e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

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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	1.6400e-003	0.0547	0.0951	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**1.6400e-003**	**0.0547**	**0.0951**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

20-124 Alexandria Phase 2 - 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**

3.17 Framing/Drywall - 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	5.4900e-003	0.0537	0.0463	1.0000e-004		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**5.4900e-003**	**0.0537**	**0.0463**	**1.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 2 - 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	1.8800e-003	0.0361	0.0600	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**1.8800e-003**	**0.0361**	**0.0600**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

Mitigated Construction Off-Site

20-124 Alexandria Phase 2 - 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**

3.18 Elevators - 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	0.0131	0.0869	0.1085	1.6000e-004		3.1600e-003	3.1600e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**0.0131**	**0.0869**	**0.1085**	**1.6000e-004**		**3.1600e-003**	**3.1600e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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	3.0300e-003	0.1021	0.1010	1.6000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**3.0300e-003**	**0.1021**	**0.1010**	**1.6000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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					

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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**

3.19 Other Interior Finishes - 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					
Archit. Coating	2.7428					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6900e-003	0.0370	0.0421	7.0000e-005		1.8300e-003	1.8300e-003		1.7300e-003	1.7300e-003	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**2.7475**	**0.0370**	**0.0421**	**7.0000e-005**		**1.8300e-003**	**1.8300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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					
Archit. Coating	2.7428					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8000e-004	0.0218	0.0309	7.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**2.7438**	**0.0218**	**0.0309**	**7.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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					

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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**

3.20 Startup & Commissioning - 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	2.2000e-004	2.0500e-003	2.8300e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2000e-004**	**2.0500e-003**	**2.8300e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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	9.0000e-005	1.6800e-003	2.9000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0000e-005**	**1.6800e-003**	**2.9000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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					

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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**

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	2.1736	1.7964	14.7928	0.0423	3.8021	0.0257	3.8279	0.9491	0.0240	0.9730	0.0000	3,922.0105	3,922.0105	0.2005	0.1898	3,983.5866
Unmitigated	2.1736	1.7964	14.7928	0.0423	3.8021	0.0257	3.8279	0.9491	0.0240	0.9730	0.0000	3,922.0105	3,922.0105	0.2005	0.1898	3,983.5866

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	3,087.99	4,878.77	4055.27	2,651,809	2,651,809
Day-Care Center	197.96	25.87	24.26	174,947	174,947
Library	60.52	168.19	88.39	135,392	135,392

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

Research & Development	4,413.01	744.48	435.91	8,322,687	8,322,687
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	7,759.48	5,817.30	4,603.83	11,284,834	11,284,834

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
Convenience Market (24 hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Day-Care Center	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Library	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Convenience Market (24 hour)	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Research & Development	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675
Unenclosed Parking with Elevator	0.419259	0.038731	0.294691	0.172967	0.034644	0.007826	0.012562	0.007225	0.004786	0.001833	0.004375	0.000426	0.000675

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

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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					
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	0.0661	0.6010	0.5048	3.6100e-003	0.0457	0.0457	0.0457	0.0457	0.0000	654.2599	654.2599	0.0125	0.0120	658.1478
NaturalGas Unmitigated	0.0661	0.6010	0.5048	3.6100e-003	0.0457	0.0457	0.0457	0.0457	0.0000	654.2599	654.2599	0.0125	0.0120	658.1478

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					
Convenience Market (24 hour)	20520	1.1000e-004	1.0100e-003	8.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.0950	1.0950	2.0000e-005	2.0000e-005	1.1015
Day-Care Center	154110	8.3000e-004	7.5500e-003	6.3500e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.2239	8.2239	1.6000e-004	1.5000e-004	8.2728
Library	51597	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7534	2.7534	5.0000e-005	5.0000e-005	2.7698
Research & Development	1.20341e+007	0.0649	0.5899	0.4955	3.5400e-003		0.0448	0.0448		0.0448	0.0448	0.0000	642.1876	642.1876	0.0123	0.0118	646.0038
Unenclosed Parking with	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		**0.0661**	**0.6010**	**0.5048**	**3.6200e-003**		**0.0457**	**0.0457**		**0.0457**	**0.0457**	**0.0000**	**654.2599**	**654.2599**	**0.0125**	**0.0120**	**658.1478**

Mitigated

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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					
Convenience Market (24 hour)	20520	1.1000e-004	1.0100e-003	8.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.0950	1.0950	2.0000e-005	2.0000e-005	1.1015
Day-Care Center	154110	8.3000e-004	7.5500e-003	6.3500e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.2239	8.2239	1.6000e-004	1.5000e-004	8.2728
Library	51597	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7534	2.7534	5.0000e-005	5.0000e-005	2.7698
Research & Development	1.20341e+007	0.0649	0.5899	0.4955	3.5400e-003		0.0448	0.0448		0.0448	0.0448	0.0000	642.1876	642.1876	0.0123	0.0118	646.0038
Unenclosed Parking with	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		**0.0661**	**0.6010**	**0.5048**	**3.6200e-003**		**0.0457**	**0.0457**		**0.0457**	**0.0457**	**0.0000**	**654.2599**	**654.2599**	**0.0125**	**0.0120**	**658.1478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 hour)	46080	0.0000	0.0000	0.0000	0.0000
Day-Care Center	41265.9	0.0000	0.0000	0.0000	0.0000
Library	15603	0.0000	0.0000	0.0000	0.0000
Research & Development	3.63914e+006	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

Unenclosed Parking with	978705	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			
Convenience Market (24 hour)	46080	0.0000	0.0000	0.0000	0.0000
Day-Care Center	41265.9	0.0000	0.0000	0.0000	0.0000
Library	15603	0.0000	0.0000	0.0000	0.0000
Research & Development	3.63914e+006	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	978705	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

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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					
Mitigated	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Unmitigated	2.1090	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435

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	0.2743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9300e-003	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Total	**2.1090**	**1.9000e-004**	**0.0209**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0408**	**0.0408**	**1.1000e-004**	**0.0000**	**0.0435**

Mitigated

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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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9300e-003	1.9000e-004	0.0209	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0435
Total	**2.1090**	**1.9000e-004**	**0.0209**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0408**	**0.0408**	**1.1000e-004**	**0.0000**	**0.0435**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.4893	0.2943	0.1859	148.2470
Unmitigated	85.4893	0.2943	0.1859	148.2470

7.2 Water by Land Use

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

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Research & Development	240.827 / 0	85.2049	0.2933	0.1853	147.7538
Unenclosed Parking with	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**85.4893**	**0.2943**	**0.1859**	**148.2470**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Research & Development	240.827 / 0	85.2049	0.2933	0.1853	147.7538

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Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**85.4893**	**0.2943**	**0.1859**	**148.2470**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.1822	0.7791	0.0000	32.6584
Unmitigated	13.1822	0.7791	0.0000	32.6584

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992

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Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Research & Development	37.22	7.5553	0.4465	0.0000	18.7180
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**13.1822**	**0.7791**	**0.0000**	**32.6584**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Research & Development	37.22	7.5553	0.4465	0.0000	18.7180
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**13.1822**	**0.7791**	**0.0000**	**32.6584**

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	2	0	50	2682	0.73	Diesel
Emergency Generator	2	0	50	2012	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)	0.3852	0.1889	0.9821	1.8500e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	178.7462	178.7462	0.0251	0.0000	179.3727
Total	**0.3852**	**0.1889**	**0.9821**	**1.8500e-003**		**7.5500e-003**	**7.5500e-003**		**7.5500e-003**	**7.5500e-003**	**0.0000**	**178.7462**	**178.7462**	**0.0251**	**0.0000**	**179.3727**

11.0 Vegetation

Date: 3/27/2024 4:37 PM

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	675.65	1000sqft	6.10	675,651.00	0
Parking Lot	144.00	Space	0.00	57,600.00	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 - Unit amount, acreage, square footage provided by applicant

Construction Phase - Phase lengths and start date provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

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Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment information provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Trips and VMT - All trips entered into EMFAC2021

Demolition - Demolition square footage provided by applicant.

Grading - From C2.06 in site plan. Net 78,157cy fill for whole site. Assuming entire site quantity for each phase for conservatism.

Architectural Coating - Super compliant paints during construction for mitigation measure AQ-2 included in this output.

Vehicle Trips - City park land use type used to represent green space at site.

Vehicle Emission Factors - Emission factors from EMFAC2021

Consumer Products -

Energy Use - Reach code bans natural gas

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - All equipment t4i, BMP

Fleet Mix - Fleet mix from EMFAC2021

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Parking	150.00	15.00

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tblArchitecturalCoating	EF_Parking	150.00	15.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	15.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	15.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	10.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

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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
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tblConstructionPhase	NumDays	20.00	165.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	230.00	125.00
tblConstructionPhase	NumDays	230.00	125.00
tblConstructionPhase	NumDays	230.00	25.00
tblConstructionPhase	NumDays	230.00	50.00

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tblConstructionPhase	NumDays	230.00	25.00
tblConstructionPhase	NumDays	230.00	50.00
tblConstructionPhase	NumDays	230.00	60.00
tblConstructionPhase	NumDays	230.00	135.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	20.00	85.00
tblConstructionPhase	NumDays	20.00	160.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	NumDays	10.00	170.00
tblConstructionPhase	NumDays	10.00	4.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	T24NG	17.67	0.00
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
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	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18

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tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblGrading	MaterialExported	0.00	24,714.00
tblGrading	MaterialImported	0.00	102,871.00
tblLandUse	LandUseSquareFeet	675,650.00	675,651.00
tblLandUse	LotAcreage	15.51	6.10
tblLandUse	LotAcreage	1.30	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	0.70
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.90
tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	6.00
tblTripsAndVMT	HaulingTripNumber	581.00	0.00
tblTripsAndVMT	HaulingTripNumber	15,948.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00

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tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
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tblTripsAndVMT	WorkerTripNumber	240.00	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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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

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	1.90	1.52
tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	11.26	9.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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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
Year	tons/yr										MT/yr					
2026	0.0575	0.4385	0.7456	1.2200e-003	0.2245	0.0191	0.2436	0.0283	0.0186	0.0468	0.0000	105.0601	105.0601	0.0165	0.0000	105.4735
2027	0.3796	3.3933	3.7437	7.8900e-003	0.3490	0.1419	0.4909	0.1218	0.1335	0.2553	0.0000	679.5226	679.5226	0.1661	0.0000	683.6755
2028	0.9437	2.0650	2.8051	4.8600e-003	0.0000	0.0826	0.0826	0.0000	0.0792	0.0792	0.0000	413.8893	413.8893	0.0746	0.0000	415.7545
2029	5.6100e-003	0.0529	0.0866	1.3000e-004	0.0000	2.2500e-003	2.2500e-003	0.0000	2.1100e-003	2.1100e-003	0.0000	11.4900	11.4900	2.8500e-003	0.0000	11.5612
Maximum	**0.9437**	**3.3933**	**3.7437**	**7.8900e-003**	**0.3490**	**0.1419**	**0.4909**	**0.1218**	**0.1335**	**0.2553**	**0.0000**	**679.5226**	**679.5226**	**0.1661**	**0.0000**	**683.6755**

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					
2026	0.0214	0.4803	0.7994	1.2200e-003	0.1010	4.9700e-003	0.1060	0.0127	4.9700e-003	0.0177	0.0000	105.0599	105.0599	0.0165	0.0000	105.4733
2027	0.1339	2.7234	4.6749	7.8900e-003	0.1571	0.0283	0.1853	0.0548	0.0283	0.0831	0.0000	679.5218	679.5218	0.1661	0.0000	683.6746
2028	0.7982	1.9655	3.0644	4.8600e-003	0.0000	0.0305	0.0305	0.0000	0.0305	0.0305	0.0000	413.8888	413.8888	0.0746	0.0000	415.7540
2029	2.5600e-003	0.0543	0.0939	1.3000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	11.4900	11.4900	2.8500e-003	0.0000	11.5611
Maximum	**0.7982**	**2.7234**	**4.6749**	**7.8900e-003**	**0.1571**	**0.0305**	**0.1853**	**0.0548**	**0.0305**	**0.0831**	**0.0000**	**679.5218**	**679.5218**	**0.1661**	**0.0000**	**683.6746**

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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	**31.05**	**12.21**	**-16.95**	**0.00**	**55.00**	**74.01**	**60.70**	**55.00**	**72.62**	**65.73**	**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	**8-3-2026**	**11-2-2026**	0.1248	0.1195
2	**11-3-2026**	**2-2-2027**	0.7718	0.6433
3	**2-3-2027**	**5-2-2027**	1.1962	0.7657
4	**5-3-2027**	**8-2-2027**	0.7229	0.6202
5	**8-3-2027**	**11-2-2027**	0.9555	0.7979
6	**11-3-2027**	**2-2-2028**	0.8538	0.7098
7	**2-3-2028**	**5-2-2028**	0.7611	0.6350
8	**5-3-2028**	**8-2-2028**	0.6323	0.6001
9	**8-3-2028**	**11-2-2028**	0.8732	0.8395
10	**11-3-2028**	**2-2-2029**	0.4165	0.4226
11	**2-3-2029**	**5-2-2029**	0.0243	0.0238
		Highest	1.1962	0.8395

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	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156

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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	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075
Waste						0.0000	0.0000		0.0000	0.0000	10.4216	0.0000	10.4216	0.6159	0.0000	25.8190
Water						0.0000	0.0000		0.0000	0.0000	117.5375	0.0000	117.5375	0.4046	0.2556	203.8218
Total	**4.2788**	**1.2860**	**11.1517**	**0.0405**	**3.8698**	**0.0206**	**3.8904**	**0.9661**	**0.0192**	**0.9853**	**127.9591**	**3,753.7484**	**3,881.7074**	**1.1545**	**0.4107**	**4,032.9638**

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	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
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	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075
Waste						0.0000	0.0000		0.0000	0.0000	10.4216	0.0000	10.4216	0.6159	0.0000	25.8190
Water						0.0000	0.0000		0.0000	0.0000	117.5375	0.0000	117.5375	0.4046	0.2556	203.8218
Total	**4.2788**	**1.2860**	**11.1517**	**0.0405**	**3.8698**	**0.0206**	**3.8904**	**0.9661**	**0.0192**	**0.9853**	**127.9591**	**3,753.7484**	**3,881.7074**	**1.1545**	**0.4107**	**4,032.9638**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Abatement	Site Preparation	8/1/2026	10/23/2026	5	60	
2	Demolition	Demolition	10/22/2026	12/30/2026	5	50	
3	Site Utilities	Site Preparation	12/31/2026	8/25/2027	5	170	
4	Grade Side	Grading	12/31/2026	4/28/2027	5	85	
5	Drill Displacement Piles	Trenching	3/14/2027	8/27/2027	5	120	
6	Dewatering	Site Preparation	5/6/2027	5/11/2027	5	4	
7	Shoring and Excavation	Trenching	5/6/2027	6/23/2027	5	35	
8	Concrete/Rebar/Waterproofing	Building Construction	7/1/2027	9/22/2027	5	60	
9	Structural Steel	Building Construction	9/9/2027	3/15/2028	5	135	
10	Concrete Decks	Building Construction	1/13/2028	7/5/2028	5	125	
11	Fireproofing	Building Construction	4/13/2028	10/4/2028	5	125	
12	Exterior Skin	Architectural Coating	5/4/2028	12/20/2028	5	165	
13	Landscaping and Hardscape	Paving	7/20/2028	2/28/2029	5	160	
14	MEP	Building Construction	7/27/2028	8/30/2028	5	25	
15	Roofing	Building Construction	8/31/2028	11/8/2028	5	50	
16	Framing/Drywall	Building Construction	9/7/2028	10/11/2028	5	25	
17	Elevators	Building Construction	9/14/2028	11/22/2028	5	50	
18	Other Interior Finishes	Architectural Coating	9/21/2028	11/29/2028	5	50	
19	Startup & Commissioning	Paving	1/18/2029	1/31/2029	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 286.88

Acres of Paving: 0

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Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,013,477; Non-Residential Outdoor: 337,826; Striped Parking Area: 3,456

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Abatement	Air Compressors	1	6.00	78	0.48
Abatement	Forklifts	1	4.00	89	0.20
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	4	4.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
Demolition	Excavators	2	8.00	158	0.38
Demolition	Signal Boards	1	8.00	6	0.82
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	6.00	64	0.46
Site Utilities	Excavators	1	8.00	158	0.38
Site Utilities	Sweepers/Scrubbers	1	2.10	64	0.46
Site Utilities	Trenchers	1	3.20	78	0.50
Grade Side	Excavators	1	6.00	158	0.38
Grade Side	Rubber Tired Dozers	1	6.00	247	0.40
Grade Side	Scrapers	4	6.00	367	0.48
Grade Side	Signal Boards	2	8.00	6	0.82
Grade Side	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drill Displacement Piles	Bore/Drill Rigs	1	6.00	221	0.50
Drill Displacement Piles	Forklifts	1	2.00	89	0.20
Drill Displacement Piles	Rubber Tired Dozers	1	6.00	247	0.40
Drill Displacement Piles	Signal Boards	1	8.00	6	0.82
Drill Displacement Piles	Sweepers/Scrubbers	1	2.00	64	0.46
Dewatering	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Excavators	2	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

Shoring and Excavation	Forklifts	1	2.50	89	0.20
Concrete/Rebar/Waterproofing	Cranes	1	6.00	231	0.29
Concrete/Rebar/Waterproofing	Pumps	4	12.00	84	0.74
Concrete/Rebar/Waterproofing	Skid Steer Loaders	1	8.00	65	0.37
Concrete/Rebar/Waterproofing	Sweepers/Scrubbers	1	12.00	64	0.46
Structural Steel	Aerial Lifts	3	5.30	63	0.31
Structural Steel	Cranes	2	8.00	231	0.29
Structural Steel	Forklifts	2	6.00	89	0.20
Structural Steel	Generator Sets	4	4.70	84	0.74
Structural Steel	Signal Boards	2	8.00	6	0.82
Structural Steel	Sweepers/Scrubbers	1	1.80	64	0.46
Structural Steel	Welders	4	8.00	46	0.45
Concrete Decks	Concrete/Industrial Saws	4	5.00	81	0.73
Concrete Decks	Forklifts	2	6.00	89	0.20
Concrete Decks	Pumps	2	5.80	84	0.74
Concrete Decks	Signal Boards	2	8.00	6	0.82
Fireproofing	Forklifts	1	4.00	89	0.20
Fireproofing	Other General Industrial Equipment	1	6.40	88	0.34
Exterior Skin	Aerial Lifts	4	8.00	63	0.31
Exterior Skin	Cranes	1	3.40	231	0.29
Exterior Skin	Forklifts	1	2.50	89	0.20
Landscaping and Hardscape	Forklifts	1	0.50	89	0.20
Landscaping and Hardscape	Pavers	1	1.80	130	0.42
Landscaping and Hardscape	Pressure Washers	1	0.50	13	0.30
Landscaping and Hardscape	Pumps	1	2.00	84	0.74
Landscaping and Hardscape	Tractors/Loaders/Backhoes	1	8.00	97	0.37
MEP	Cranes	1	6.40	231	0.29
MEP	Forklifts	1	2.60	89	0.20
MEP	Sweepers/Scrubbers	1	8.00	64	0.46

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

Roofing	Cranes	1	0.70	231	0.29
Roofing	Other Construction Equipment	1	6.00	172	0.42
Framing/Drywall	Cranes	1	6.40	231	0.29
Framing/Drywall	Forklifts	1	2.90	89	0.20
Framing/Drywall	Sweepers/Scrubbers	1	8.00	64	0.46
Elevators	Forklifts	1	0.60	89	0.20
Elevators	Sweepers/Scrubbers	1	4.00	64	0.46
Elevators	Welders	2	8.00	46	0.45
Other Interior Finishes	Cement and Mortar Mixers	2	6.00	9	0.56
Other Interior Finishes	Forklifts	1	1.90	89	0.20
Other Interior Finishes	Sweepers/Scrubbers	1	4.00	64	0.46
Startup & Commissioning	Forklifts	1	4.00	89	0.20

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
Abatement	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grade Side	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drill Displacement Piles	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Dewatering	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Shoring and Excavation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete/Rebar/Waterproofing	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural Steel	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Decks	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fireproofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Skin	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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Landscaping and Hardscape	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
MEP	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Roofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Framing/Drywall	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Elevators	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Other Interior Finishes	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Startup & Commissioning	1	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 Abatement - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4300e-003	0.0466	0.0713	1.1000e-004		2.2000e-003	2.2000e-003		2.1500e-003	2.1500e-003	0.0000	9.6741	9.6741	1.0700e-003	0.0000	9.7009
Total	**6.4300e-003**	**0.0466**	**0.0713**	**1.1000e-004**	**0.0000**	**2.2000e-003**	**2.2000e-003**	**0.0000**	**2.1500e-003**	**2.1500e-003**	**0.0000**	**9.6741**	**9.6741**	**1.0700e-003**	**0.0000**	**9.7009**

Unmitigated Construction Off-Site

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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					
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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0419	0.0724	1.1000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	9.6741	9.6741	1.0700e-003	0.0000	9.7009
Total	**2.1500e-003**	**0.0419**	**0.0724**	**1.1000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**9.6741**	**9.6741**	**1.0700e-003**	**0.0000**	**9.7009**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Demolition - 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					0.0629	0.0000	0.0629	9.5300e-003	0.0000	9.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0494	0.3762	0.6590	1.0700e-003		0.0163	0.0163		0.0158	0.0158	0.0000	92.3022	92.3022	0.0145	0.0000	92.6641
Total	**0.0494**	**0.3762**	**0.6590**	**1.0700e-003**	**0.0629**	**0.0163**	**0.0792**	**9.5300e-003**	**0.0158**	**0.0253**	**0.0000**	**92.3022**	**92.3022**	**0.0145**	**0.0000**	**92.6641**

Unmitigated Construction Off-Site

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20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					0.0283	0.0000	0.0283	4.2900e-003	0.0000	4.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.4278	0.7066	1.0700e-003		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	92.3021	92.3021	0.0145	0.0000	92.6640
Total	**0.0187**	**0.4278**	**0.7066**	**1.0700e-003**	**0.0283**	**4.7500e-003**	**0.0331**	**4.2900e-003**	**4.7500e-003**	**9.0400e-003**	**0.0000**	**92.3021**	**92.3021**	**0.0145**	**0.0000**	**92.6640**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Site Utilities - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	1.3900e-003	2.3900e-003	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.3157	0.3157	1.0000e-004	0.0000	0.3182
Total	**1.7000e-004**	**1.3900e-003**	**2.3900e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.3157**	**0.3157**	**1.0000e-004**	**0.0000**	**0.3182**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.6200e-003	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3157	0.3157	1.0000e-004	0.0000	0.3182
Total	**6.0000e-005**	**1.6200e-003**	**2.7200e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3157**	**0.3157**	**1.0000e-004**	**0.0000**	**0.3182**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Site Utilities - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0282	0.2352	0.4044	6.1000e-004		0.0135	0.0135		0.0124	0.0124	0.0000	53.3455	53.3455	0.0173	0.0000	53.7768
Total	**0.0282**	**0.2352**	**0.4044**	**6.1000e-004**	**0.0000**	**0.0135**	**0.0135**	**0.0000**	**0.0124**	**0.0124**	**0.0000**	**53.3455**	**53.3455**	**0.0173**	**0.0000**	**53.7768**

Unmitigated Construction Off-Site

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20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3100e-003	0.2737	0.4597	6.1000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	53.3454	53.3454	0.0173	0.0000	53.7767
Total	**9.3100e-003**	**0.2737**	**0.4597**	**6.1000e-004**	**0.0000**	**2.1900e-003**	**2.1900e-003**	**0.0000**	**2.1900e-003**	**2.1900e-003**	**0.0000**	**53.3454**	**53.3454**	**0.0173**	**0.0000**	**53.7767**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Grade Side - 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					0.1616	0.0000	0.1616	0.0188	0.0000	0.0188	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-003	0.0142	0.0130	3.0000e-005		5.8000e-004	5.8000e-004		5.3000e-004	5.3000e-004	0.0000	2.7681	2.7681	8.9000e-004	0.0000	2.7903
Total	**1.5000e-003**	**0.0142**	**0.0130**	**3.0000e-005**	**0.1616**	**5.8000e-004**	**0.1622**	**0.0188**	**5.3000e-004**	**0.0193**	**0.0000**	**2.7681**	**2.7681**	**8.9000e-004**	**0.0000**	**2.7903**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					0.0727	0.0000	0.0727	8.4400e-003	0.0000	8.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	9.0600e-003	0.0176	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.7681	2.7681	8.9000e-004	0.0000	2.7903
Total	**5.2000e-004**	**9.0600e-003**	**0.0176**	**3.0000e-005**	**0.0727**	**5.0000e-005**	**0.0728**	**8.4400e-003**	**5.0000e-005**	**8.4900e-003**	**0.0000**	**2.7681**	**2.7681**	**8.9000e-004**	**0.0000**	**2.7903**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Grade Side - 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					
Fugitive Dust					0.3490	0.0000	0.3490	0.1218	0.0000	0.1218	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1262	1.1924	1.0876	2.6600e-003		0.0483	0.0483		0.0446	0.0446	0.0000	232.5218	232.5218	0.0744	0.0000	234.3813
Total	**0.1262**	**1.1924**	**1.0876**	**2.6600e-003**	**0.3490**	**0.0483**	**0.3974**	**0.1218**	**0.0446**	**0.1664**	**0.0000**	**232.5218**	**232.5218**	**0.0744**	**0.0000**	**234.3813**

Unmitigated Construction Off-Site

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20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					0.1571	0.0000	0.1571	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.7613	1.4807	2.6600e-003		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	232.5216	232.5216	0.0744	0.0000	234.3810
Total	**0.0436**	**0.7613**	**1.4807**	**2.6600e-003**	**0.1571**	**4.2600e-003**	**0.1613**	**0.0548**	**4.2600e-003**	**0.0591**	**0.0000**	**232.5216**	**232.5216**	**0.0744**	**0.0000**	**234.3810**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Drill Displacement Piles - 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	0.0457	0.4381	0.2901	9.1000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	79.2529	79.2529	0.0250	0.0000	79.8790
Total	**0.0457**	**0.4381**	**0.2901**	**9.1000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**79.2529**	**79.2529**	**0.0250**	**0.0000**	**79.8790**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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	0.0147	0.2457	0.4781	9.1000e-004		2.2400e-003	2.2400e-003		2.2400e-003	2.2400e-003	0.0000	79.2528	79.2528	0.0250	0.0000	79.8789
Total	**0.0147**	**0.2457**	**0.4781**	**9.1000e-004**		**2.2400e-003**	**2.2400e-003**		**2.2400e-003**	**2.2400e-003**	**0.0000**	**79.2528**	**79.2528**	**0.0250**	**0.0000**	**79.8789**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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**

3.7 Dewatering - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	3.7300e-003	4.0700e-003	2.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004	0.0000	1.6642	1.6642	5.4000e-004	0.0000	1.6777
Total	**4.2000e-004**	**3.7300e-003**	**4.0700e-003**	**2.0000e-005**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.6642**	**1.6642**	**5.4000e-004**	**0.0000**	**1.6777**

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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	5.0300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.6642	1.6642	5.4000e-004	0.0000	1.6777
Total	**3.1000e-004**	**5.0300e-003**	**0.0101**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.6642**	**1.6642**	**5.4000e-004**	**0.0000**	**1.6777**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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 Shoring and Excavation - 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	9.9900e-003	0.0799	0.1559	3.6000e-004		3.4100e-003	3.4100e-003		3.1300e-003	3.1300e-003	0.0000	31.1829	31.1829	0.0101	0.0000	31.4350
Total	**9.9900e-003**	**0.0799**	**0.1559**	**3.6000e-004**		**3.4100e-003**	**3.4100e-003**		**3.1300e-003**	**3.1300e-003**	**0.0000**	**31.1829**	**31.1829**	**0.0101**	**0.0000**	**31.4350**

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	5.1400e-003	0.1274	0.2322	3.6000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.1829	31.1829	0.0101	0.0000	31.4350
Total	**5.1400e-003**	**0.1274**	**0.2322**	**3.6000e-004**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**31.1829**	**31.1829**	**0.0101**	**0.0000**	**31.4350**

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**

3.9 Concrete/Rebar/Waterproofing - 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	0.0674	0.5976	0.8348	1.4900e-003		0.0256	0.0256		0.0250	0.0250	0.0000	128.6497	128.6497	0.0128	0.0000	128.9702
Total	**0.0674**	**0.5976**	**0.8348**	**1.4900e-003**		**0.0256**	**0.0256**		**0.0250**	**0.0250**	**0.0000**	**128.6497**	**128.6497**	**0.0128**	**0.0000**	**128.9702**

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	0.0282	0.5555	0.9328	1.4900e-003		5.8300e-003	5.8300e-003		5.8300e-003	5.8300e-003	0.0000	128.6495	128.6495	0.0128	0.0000	128.9701
Total	**0.0282**	**0.5555**	**0.9328**	**1.4900e-003**		**5.8300e-003**	**5.8300e-003**		**5.8300e-003**	**5.8300e-003**	**0.0000**	**128.6495**	**128.6495**	**0.0128**	**0.0000**	**128.9701**

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**

3.10 Structural Steel - 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	0.1016	0.8464	0.9667	1.8400e-003		0.0323	0.0323		0.0311	0.0311	0.0000	152.9056	152.9056	0.0260	0.0000	153.5555
Total	**0.1016**	**0.8464**	**0.9667**	**1.8400e-003**		**0.0323**	**0.0323**		**0.0311**	**0.0311**	**0.0000**	**152.9056**	**152.9056**	**0.0260**	**0.0000**	**153.5555**

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**

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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 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	0.0326	0.7548	1.0812	1.8400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	152.9054	152.9054	0.0260	0.0000	153.5553
Total	**0.0326**	**0.7548**	**1.0812**	**1.8400e-003**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**152.9054**	**152.9054**	**0.0260**	**0.0000**	**153.5553**

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**

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

3.10 Structural Steel - 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	0.0657	0.5471	0.6248	1.1900e-003		0.0209	0.0209		0.0201	0.0201	0.0000	98.8292	98.8292	0.0168	0.0000	99.2493
Total	**0.0657**	**0.5471**	**0.6248**	**1.1900e-003**		**0.0209**	**0.0209**		**0.0201**	**0.0201**	**0.0000**	**98.8292**	**98.8292**	**0.0168**	**0.0000**	**99.2493**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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	0.0211	0.4879	0.6988	1.1900e-003		8.4800e-003	8.4800e-003		8.4800e-003	8.4800e-003	0.0000	98.8291	98.8291	0.0168	0.0000	99.2492
Total	**0.0211**	**0.4879**	**0.6988**	**1.1900e-003**		**8.4800e-003**	**8.4800e-003**		**8.4800e-003**	**8.4800e-003**	**0.0000**	**98.8291**	**98.8291**	**0.0168**	**0.0000**	**99.2492**

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**

3.11 Concrete Decks - 2028

Unmitigated Construction On-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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	0.0874	0.6961	1.0501	1.8000e-003		0.0295	0.0295		0.0292	0.0292	0.0000	153.4128	153.4128	0.0104	0.0000	153.6733
Total	**0.0874**	**0.6961**	**1.0501**	**1.8000e-003**		**0.0295**	**0.0295**		**0.0292**	**0.0292**	**0.0000**	**153.4128**	**153.4128**	**0.0104**	**0.0000**	**153.6733**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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	0.0321	0.6243	1.0794	1.8000e-003		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	153.4126	153.4126	0.0104	0.0000	153.6731
Total	**0.0321**	**0.6243**	**1.0794**	**1.8000e-003**		**2.3300e-003**	**2.3300e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**153.4126**	**153.4126**	**0.0104**	**0.0000**	**153.6731**

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**

3.12 Fireproofing - 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					

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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	9.5100e-003	0.0899	0.1307	1.8000e-004		4.4800e-003	4.4800e-003		4.1300e-003	4.1300e-003	0.0000	15.4465	15.4465	5.0000e-003	0.0000	15.5714
Total	**9.5100e-003**	**0.0899**	**0.1307**	**1.8000e-004**		**4.4800e-003**	**4.4800e-003**		**4.1300e-003**	**4.1300e-003**	**0.0000**	**15.4465**	**15.4465**	**5.0000e-003**	**0.0000**	**15.5714**

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	3.9800e-003	0.0775	0.1339	1.8000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	15.4465	15.4465	5.0000e-003	0.0000	15.5714

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**3.9800e-003**	**0.0775**	**0.1339**	**1.8000e-004**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**15.4465**	**15.4465**	**5.0000e-003**	**0.0000**	**15.5714**

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**

3.13 Exterior Skin - 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					
Archit. Coating	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0244	0.3039	0.4502	8.0000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	69.9211	69.9211	0.0226	0.0000	70.4864

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**0.3780**	**0.3039**	**0.4502**	**8.0000e-004**		**8.7900e-003**	**8.7900e-003**		**8.0900e-003**	**8.0900e-003**	**0.0000**	**69.9211**	**69.9211**	**0.0226**	**0.0000**	**70.4864**

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	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0178	0.3822	0.5582	8.0000e-004		0.0131	0.0131		0.0131	0.0131	0.0000	69.9210	69.9210	0.0226	0.0000	70.4864

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**0.3714**	**0.3822**	**0.5582**	**8.0000e-004**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**69.9210**	**69.9210**	**0.0226**	**0.0000**	**70.4864**

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**

3.14 Landscaping and Hardscape - 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	0.0147	0.1385	0.2279	3.5000e-004		5.8200e-003	5.8200e-003		5.4800e-003	5.4800e-003	0.0000	30.3500	30.3500	7.4500e-003	0.0000	30.5362
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**0.0147**	**0.1385**	**0.2279**	**3.5000e-004**		**5.8200e-003**	**5.8200e-003**		**5.4800e-003**	**5.4800e-003**	**0.0000**	**30.3500**	**30.3500**	**7.4500e-003**	**0.0000**	**30.5362**

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	6.7200e-003	0.1433	0.2475	3.5000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	30.3500	30.3500	7.4500e-003	0.0000	30.5362
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**6.7200e-003**	**0.1433**	**0.2475**	**3.5000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**30.3500**	**30.3500**	**7.4500e-003**	**0.0000**	**30.5362**

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**

3.14 Landscaping and Hardscape - 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	5.3900e-003	0.0509	0.0838	1.3000e-004		2.1400e-003	2.1400e-003		2.0100e-003	2.0100e-003	0.0000	11.1543	11.1543	2.7400e-003	0.0000	11.2227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**5.3900e-003**	**0.0509**	**0.0838**	**1.3000e-004**		**2.1400e-003**	**2.1400e-003**		**2.0100e-003**	**2.0100e-003**	**0.0000**	**11.1543**	**11.1543**	**2.7400e-003**	**0.0000**	**11.2227**

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	2.4700e-003	0.0527	0.0910	1.3000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	11.1543	11.1543	2.7400e-003	0.0000	11.2227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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

Total	**2.4700e-003**	**0.0527**	**0.0910**	**1.3000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**11.1543**	**11.1543**	**2.7400e-003**	**0.0000**	**11.2227**

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**

3.15 MEP - 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	5.4500e-003	0.0533	0.0458	1.0000e-004		2.5600e-003	2.5600e-003		2.3600e-003	2.3600e-003	0.0000	8.4067	8.4067	2.7200e-003	0.0000	8.4747
Total	**5.4500e-003**	**0.0533**	**0.0458**	**1.0000e-004**		**2.5600e-003**	**2.5600e-003**		**2.3600e-003**	**2.3600e-003**	**0.0000**	**8.4067**	**8.4067**	**2.7200e-003**	**0.0000**	**8.4747**

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20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					
Off-Road	1.8600e-003	0.0358	0.0595	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4067	8.4067	2.7200e-003	0.0000	8.4747
Total	**1.8600e-003**	**0.0358**	**0.0595**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4067**	**8.4067**	**2.7200e-003**	**0.0000**	**8.4747**

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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**

3.16 Roofing - 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	6.2900e-003	0.0587	0.0787	1.3000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**6.2900e-003**	**0.0587**	**0.0787**	**1.3000e-004**		**2.9700e-003**	**2.9700e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

Unmitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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	1.6400e-003	0.0547	0.0951	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**1.6400e-003**	**0.0547**	**0.0951**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

Mitigated Construction Off-Site

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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**

3.17 Framing/Drywall - 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	5.4900e-003	0.0537	0.0463	1.0000e-004		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**5.4900e-003**	**0.0537**	**0.0463**	**1.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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					
Off-Road	1.8800e-003	0.0361	0.0600	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**1.8800e-003**	**0.0361**	**0.0600**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

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					

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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**

3.18 Elevators - 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	0.0131	0.0869	0.1085	1.6000e-004		3.1600e-003	3.1600e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**0.0131**	**0.0869**	**0.1085**	**1.6000e-004**		**3.1600e-003**	**3.1600e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - 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**

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	3.0300e-003	0.1021	0.1010	1.6000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**3.0300e-003**	**0.1021**	**0.1010**	**1.6000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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**

3.19 Other Interior Finishes - 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					
Archit. Coating	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6900e-003	0.0370	0.0421	7.0000e-005		1.8300e-003	1.8300e-003		1.7300e-003	1.7300e-003	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**0.3582**	**0.0370**	**0.0421**	**7.0000e-005**		**1.8300e-003**	**1.8300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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					
Archit. Coating	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8000e-004	0.0218	0.0309	7.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410
Total	**0.3545**	**0.0218**	**0.0309**	**7.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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

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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**

3.20 Startup & Commissioning - 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	2.2000e-004	2.0500e-003	2.8300e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2000e-004**	**2.0500e-003**	**2.8300e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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	9.0000e-005	1.6800e-003	2.9000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0000e-005**	**1.6800e-003**	**2.9000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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

20-124 Alexandria Phase 3 with Construction ROG Mitigation - San Mateo County, Annual

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**

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	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075
Unmitigated	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Research & Development	6,087.61	1,026.99	601.33	11,480,886	11,480,886
Total	6,087.61	1,026.99	601.33	11,480,886	11,480,886

4.3 Trip Type Information

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

	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Research & Development	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

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

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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
Research & Development	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					
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
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	5.02009e+006	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			
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	5.02009e+006	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

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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					
Mitigated	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Unmitigated	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156

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	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Total	**2.9967**	**7.0000e-005**	**7.4900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0147**	**0.0147**	**4.0000e-005**	**0.0000**	**0.0156**

Mitigated

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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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Total	**2.9967**	**7.0000e-005**	**7.4900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0147**	**0.0147**	**4.0000e-005**	**0.0000**	**0.0156**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	117.5375	0.4046	0.2556	203.8218
Unmitigated	117.5375	0.4046	0.2556	203.8218

7.2 Water by Land Use

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

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	332.213 / 0	117.5375	0.4046	0.2556	203.8218
Total		**117.5375**	**0.4046**	**0.2556**	**203.8218**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	332.213 / 0	117.5375	0.4046	0.2556	203.8218
Total		**117.5375**	**0.4046**	**0.2556**	**203.8218**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.4216	0.6159	0.0000	25.8190
Unmitigated	10.4216	0.6159	0.0000	25.8190

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	51.34	10.4216	0.6159	0.0000	25.8190
Total		**10.4216**	**0.6159**	**0.0000**	**25.8190**

Mitigated

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	51.34	10.4216	0.6159	0.0000	25.8190
Total		**10.4216**	**0.6159**	**0.0000**	**25.8190**

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

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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
Research & Development	675.65	1000sqft	6.10	675,651.00	0
Parking Lot	144.00	Space	0.00	57,600.00	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 - Unit amount, acreage, square footage provided by applicant

Construction Phase - Phase lengths and start date provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Construction equipment info provided by applicant.

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

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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 Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment information provided by applicant

Off-road Equipment - Equipment info provided by applicant

Off-road Equipment - Equipment info provided by applicant

Trips and VMT - All trips entered into EMFAC2021

Demolition - Demolition square footage provided by applicant.

Grading - From C2.06 in site plan. Net 78,157cy fill for whole site. Assuming entire site quantity for each phase for conservatism.

Vehicle Trips - City park land use type used to represent green space at site.

Vehicle Emission Factors - Emission factors from EMFAC2021

Consumer Products -

Energy Use - Reach code bans natural gas

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - All equipment t4i, BMP

Fleet Mix - Fleet mix from EMFAC2021

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
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

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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
tblConstructionPhase	NumDays	20.00	165.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	230.00	125.00
tblConstructionPhase	NumDays	230.00	125.00
tblConstructionPhase	NumDays	230.00	25.00
tblConstructionPhase	NumDays	230.00	50.00
tblConstructionPhase	NumDays	230.00	25.00
tblConstructionPhase	NumDays	230.00	50.00
tblConstructionPhase	NumDays	230.00	60.00
tblConstructionPhase	NumDays	230.00	135.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	20.00	85.00
tblConstructionPhase	NumDays	20.00	160.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	NumDays	10.00	170.00
tblConstructionPhase	NumDays	10.00	4.00

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tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	T24NG	17.67	0.00
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
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	LDT2	0.25	0.31
tblFleetMix	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MDV	0.16	0.18
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblGrading	MaterialExported	0.00	24,714.00

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tblGrading	MaterialImported	0.00	102,871.00
tblLandUse	LandUseSquareFeet	675,650.00	675,651.00
tblLandUse	LotAcreage	15.51	6.10
tblLandUse	LotAcreage	1.30	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	0.70
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.60
tblOffRoadEquipment	UsageHours	8.00	2.90

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tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	1.80
tblOffRoadEquipment	UsageHours	8.00	6.00
tblTripsAndVMT	HaulingTripNumber	581.00	0.00
tblTripsAndVMT	HaulingTripNumber	15,948.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	VendorTripNumber	120.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00

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tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	0.00
tblTripsAndVMT	WorkerTripNumber	240.00	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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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tblVehicleEF	UBUS	1.79	0.69
tblVehicleEF	UBUS	5.1800e-004	0.01
tblVehicleEF	UBUS	0.04	0.02
tblVehicleTrips	ST_TR	1.90	1.52
tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	11.26	9.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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					
2026	0.0575	0.4385	0.7456	1.2200e-003	0.2245	0.0191	0.2436	0.0283	0.0186	0.0468	0.0000	105.0601	105.0601	0.0165	0.0000	105.4735
2027	0.3796	3.3933	3.7437	7.8900e-003	0.3490	0.1419	0.4909	0.1218	0.1335	0.2553	0.0000	679.5226	679.5226	0.1661	0.0000	683.6755
2028	7.3069	2.0650	2.8051	4.8600e-003	0.0000	0.0826	0.0826	0.0000	0.0792	0.0792	0.0000	413.8893	413.8893	0.0746	0.0000	415.7545
2029	5.6100e-003	0.0529	0.0866	1.3000e-004	0.0000	2.2500e-003	2.2500e-003	0.0000	2.1100e-003	2.1100e-003	0.0000	11.4900	11.4900	2.8500e-003	0.0000	11.5612
Maximum	**7.3069**	**3.3933**	**3.7437**	**7.8900e-003**	**0.3490**	**0.1419**	**0.4909**	**0.1218**	**0.1335**	**0.2553**	**0.0000**	**679.5226**	**679.5226**	**0.1661**	**0.0000**	**683.6755**

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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					
2026	0.0214	0.4803	0.7994	1.2200e-003	0.1010	4.9700e-003	0.1060	0.0127	4.9700e-003	0.0177	0.0000	105.0599	105.0599	0.0165	0.0000	105.4733
2027	0.1339	2.7234	4.6749	7.8900e-003	0.1571	0.0283	0.1853	0.0548	0.0283	0.0831	0.0000	679.5218	679.5218	0.1661	0.0000	683.6746
2028	7.1614	1.9655	3.0644	4.8600e-003	0.0000	0.0305	0.0305	0.0000	0.0305	0.0305	0.0000	413.8888	413.8888	0.0746	0.0000	415.7540
2029	2.5600e-003	0.0543	0.0939	1.3000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	11.4900	11.4900	2.8500e-003	0.0000	11.5611
Maximum	**7.1614**	**2.7234**	**4.6749**	**7.8900e-003**	**0.1571**	**0.0305**	**0.1853**	**0.0548**	**0.0305**	**0.0831**	**0.0000**	**679.5218**	**679.5218**	**0.1661**	**0.0000**	**683.6746**

	ROG	NOx	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	**5.56**	**12.21**	**-16.95**	**0.00**	**55.00**	**74.01**	**60.70**	**55.00**	**72.62**	**65.73**	**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	**8-3-2026**	**11-2-2026**	0.1248	0.1195
2	**11-3-2026**	**2-2-2027**	0.7718	0.6433
3	**2-3-2027**	**5-2-2027**	1.1962	0.7657
4	**5-3-2027**	**8-2-2027**	0.7229	0.6202
5	**8-3-2027**	**11-2-2027**	0.9555	0.7979
6	**11-3-2027**	**2-2-2028**	0.8538	0.7098
7	**2-3-2028**	**5-2-2028**	0.7611	0.6350

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8	**5-3-2028**	**8-2-2028**	1.8856	1.8534
9	**8-3-2028**	**11-2-2028**	4.0947	4.0610
10	**11-3-2028**	**2-2-2029**	2.3048	2.3109
11	**2-3-2029**	**5-2-2029**	0.0243	0.0238
		Highest	4.0947	4.0610

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	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
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	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075
Waste						0.0000	0.0000		0.0000	0.0000	10.4216	0.0000	10.4216	0.6159	0.0000	25.8190
Water						0.0000	0.0000		0.0000	0.0000	117.5375	0.0000	117.5375	0.4046	0.2556	203.8218
Total	**4.2788**	**1.2860**	**11.1517**	**0.0405**	**3.8698**	**0.0206**	**3.8904**	**0.9661**	**0.0192**	**0.9853**	**127.9591**	**3,753.7484**	**3,881.7074**	**1.1545**	**0.4107**	**4,032.9638**

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

Category	tons/yr										MT/yr					
Area	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
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	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075
Waste						0.0000	0.0000		0.0000	0.0000	10.4216	0.0000	10.4216	0.6159	0.0000	25.8190
Water						0.0000	0.0000		0.0000	0.0000	117.5375	0.0000	117.5375	0.4046	0.2556	203.8218
Total	**4.2788**	**1.2860**	**11.1517**	**0.0405**	**3.8698**	**0.0206**	**3.8904**	**0.9661**	**0.0192**	**0.9853**	**127.9591**	**3,753.7484**	**3,881.7074**	**1.1545**	**0.4107**	**4,032.9638**

	ROG	NOx	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	Abatement	Site Preparation	8/1/2026	10/23/2026	5	60	
2	Demolition	Demolition	10/22/2026	12/30/2026	5	50	
3	Site Utilities	Site Preparation	12/31/2026	8/25/2027	5	170	
4	Grade Side	Grading	12/31/2026	4/28/2027	5	85	
5	Drill Displacement Piles	Trenching	3/14/2027	8/27/2027	5	120	
6	Dewatering	Site Preparation	5/6/2027	5/11/2027	5	4	
7	Shoring and Excavation	Trenching	5/6/2027	6/23/2027	5	35	
8	Concrete/Rebar/Waterproofing	Building Construction	7/1/2027	9/22/2027	5	60	
9	Structural Steel	Building Construction	9/9/2027	3/15/2028	5	135	

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

10	Concrete Decks	Building Construction	1/13/2028	7/5/2028	5	125
11	Fireproofing	Building Construction	4/13/2028	10/4/2028	5	125
12	Exterior Skin	Architectural Coating	5/4/2028	12/20/2028	5	165
13	Landscaping and Hardscape	Paving	7/20/2028	2/28/2029	5	160
14	MEP	Building Construction	7/27/2028	8/30/2028	5	25
15	Roofing	Building Construction	8/31/2028	11/8/2028	5	50
16	Framing/Drywall	Building Construction	9/7/2028	10/11/2028	5	25
17	Elevators	Building Construction	9/14/2028	11/22/2028	5	50
18	Other Interior Finishes	Architectural Coating	9/21/2028	11/29/2028	5	50
19	Startup & Commissioning	Paving	1/18/2029	1/31/2029	5	10

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 286.88

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,013,477; Non-Residential Outdoor: 337,826; Striped Parking Area: 3,456

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Abatement	Air Compressors	1	6.00	78	0.48
Abatement	Forklifts	1	4.00	89	0.20
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	4	4.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
Demolition	Excavators	2	8.00	158	0.38
Demolition	Signal Boards	1	8.00	6	0.82
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	6.00	64	0.46
Site Utilities	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

Site Utilities	Sweepers/Scrubbers	1	2.10	64	0.46
Site Utilities	Trenchers	1	3.20	78	0.50
Grade Side	Excavators	1	6.00	158	0.38
Grade Side	Rubber Tired Dozers	1	6.00	247	0.40
Grade Side	Scrapers	4	6.00	367	0.48
Grade Side	Signal Boards	2	8.00	6	0.82
Grade Side	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drill Displacement Piles	Bore/Drill Rigs	1	6.00	221	0.50
Drill Displacement Piles	Forklifts	1	2.00	89	0.20
Drill Displacement Piles	Rubber Tired Dozers	1	6.00	247	0.40
Drill Displacement Piles	Signal Boards	1	8.00	6	0.82
Drill Displacement Piles	Sweepers/Scrubbers	1	2.00	64	0.46
Dewatering	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Bore/Drill Rigs	1	8.00	221	0.50
Shoring and Excavation	Excavators	2	8.00	158	0.38
Shoring and Excavation	Forklifts	1	2.50	89	0.20
Concrete/Rebar/Waterproofing	Cranes	1	6.00	231	0.29
Concrete/Rebar/Waterproofing	Pumps	4	12.00	84	0.74
Concrete/Rebar/Waterproofing	Skid Steer Loaders	1	8.00	65	0.37
Concrete/Rebar/Waterproofing	Sweepers/Scrubbers	1	12.00	64	0.46
Structural Steel	Aerial Lifts	3	5.30	63	0.31
Structural Steel	Cranes	2	8.00	231	0.29
Structural Steel	Forklifts	2	6.00	89	0.20
Structural Steel	Generator Sets	4	4.70	84	0.74
Structural Steel	Signal Boards	2	8.00	6	0.82
Structural Steel	Sweepers/Scrubbers	1	1.80	64	0.46
Structural Steel	Welders	4	8.00	46	0.45
Concrete Decks	Concrete/Industrial Saws	4	5.00	81	0.73
Concrete Decks	Forklifts	2	6.00	89	0.20

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

Concrete Decks	Pumps	2	5.80	84	0.74
Concrete Decks	Signal Boards	2	8.00	6	0.82
Fireproofing	Forklifts	1	4.00	89	0.20
Fireproofing	Other General Industrial Equipment	1	6.40	88	0.34
Exterior Skin	Aerial Lifts	4	8.00	63	0.31
Exterior Skin	Cranes	1	3.40	231	0.29
Exterior Skin	Forklifts	1	2.50	89	0.20
Landscaping and Hardscape	Forklifts	1	0.50	89	0.20
Landscaping and Hardscape	Pavers	1	1.80	130	0.42
Landscaping and Hardscape	Pressure Washers	1	0.50	13	0.30
Landscaping and Hardscape	Pumps	1	2.00	84	0.74
Landscaping and Hardscape	Tractors/Loaders/Backhoes	1	8.00	97	0.37
MEP	Cranes	1	6.40	231	0.29
MEP	Forklifts	1	2.60	89	0.20
MEP	Sweepers/Scrubbers	1	8.00	64	0.46
Roofing	Cranes	1	0.70	231	0.29
Roofing	Other Construction Equipment	1	6.00	172	0.42
Framing/Drywall	Cranes	1	6.40	231	0.29
Framing/Drywall	Forklifts	1	2.90	89	0.20
Framing/Drywall	Sweepers/Scrubbers	1	8.00	64	0.46
Elevators	Forklifts	1	0.60	89	0.20
Elevators	Sweepers/Scrubbers	1	4.00	64	0.46
Elevators	Welders	2	8.00	46	0.45
Other Interior Finishes	Cement and Mortar Mixers	2	6.00	9	0.56
Other Interior Finishes	Forklifts	1	1.90	89	0.20
Other Interior Finishes	Sweepers/Scrubbers	1	4.00	64	0.46
Startup & Commissioning	Forklifts	1	4.00	89	0.20

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
Abatement	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grade Side	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drill Displacement Piles	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Dewatering	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Shoring and Excavation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete/Rebar/Waterproofing	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural Steel	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Decks	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fireproofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Skin	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Hardscape	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
MEP	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Roofing	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Framing/Drywall	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Elevators	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Other Interior Finishes	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Startup & Commissioning	1	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 Abatement - 2026

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4300e-003	0.0466	0.0713	1.1000e-004		2.2000e-003	2.2000e-003		2.1500e-003	2.1500e-003	0.0000	9.6741	9.6741	1.0700e-003	0.0000	9.7009
Total	**6.4300e-003**	**0.0466**	**0.0713**	**1.1000e-004**	**0.0000**	**2.2000e-003**	**2.2000e-003**	**0.0000**	**2.1500e-003**	**2.1500e-003**	**0.0000**	**9.6741**	**9.6741**	**1.0700e-003**	**0.0000**	**9.7009**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0419	0.0724	1.1000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	9.6741	9.6741	1.0700e-003	0.0000	9.7009
Total	**2.1500e-003**	**0.0419**	**0.0724**	**1.1000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**9.6741**	**9.6741**	**1.0700e-003**	**0.0000**	**9.7009**

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 Demolition - 2026

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					0.0629	0.0000	0.0629	9.5300e-003	0.0000	9.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0494	0.3762	0.6590	1.0700e-003		0.0163	0.0163		0.0158	0.0158	0.0000	92.3022	92.3022	0.0145	0.0000	92.6641
Total	**0.0494**	**0.3762**	**0.6590**	**1.0700e-003**	**0.0629**	**0.0163**	**0.0792**	**9.5300e-003**	**0.0158**	**0.0253**	**0.0000**	**92.3022**	**92.3022**	**0.0145**	**0.0000**	**92.6641**

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					0.0283	0.0000	0.0283	4.2900e-003	0.0000	4.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.4278	0.7066	1.0700e-003		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	92.3021	92.3021	0.0145	0.0000	92.6640
Total	**0.0187**	**0.4278**	**0.7066**	**1.0700e-003**	**0.0283**	**4.7500e-003**	**0.0331**	**4.2900e-003**	**4.7500e-003**	**9.0400e-003**	**0.0000**	**92.3021**	**92.3021**	**0.0145**	**0.0000**	**92.6640**

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 Site Utilities - 2026

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	1.3900e-003	2.3900e-003	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.3157	0.3157	1.0000e-004	0.0000	0.3182
Total	**1.7000e-004**	**1.3900e-003**	**2.3900e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.3157**	**0.3157**	**1.0000e-004**	**0.0000**	**0.3182**

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

20-124 Alexandria Phase 3 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.6200e-003	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3157	0.3157	1.0000e-004	0.0000	0.3182
Total	**6.0000e-005**	**1.6200e-003**	**2.7200e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3157**	**0.3157**	**1.0000e-004**	**0.0000**	**0.3182**

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 Site Utilities - 2027

Unmitigated Construction On-Site

Date: 3/25/2024 2:36 PM

20-124 Alexandria Phase 3 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0282	0.2352	0.4044	6.1000e-004		0.0135	0.0135		0.0124	0.0124	0.0000	53.3455	53.3455	0.0173	0.0000	53.7768
Total	**0.0282**	**0.2352**	**0.4044**	**6.1000e-004**	**0.0000**	**0.0135**	**0.0135**	**0.0000**	**0.0124**	**0.0124**	**0.0000**	**53.3455**	**53.3455**	**0.0173**	**0.0000**	**53.7768**

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

20-124 Alexandria Phase 3 - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3100e-003	0.2737	0.4597	6.1000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	53.3454	53.3454	0.0173	0.0000	53.7767
Total	**9.3100e-003**	**0.2737**	**0.4597**	**6.1000e-004**	**0.0000**	**2.1900e-003**	**2.1900e-003**	**0.0000**	**2.1900e-003**	**2.1900e-003**	**0.0000**	**53.3454**	**53.3454**	**0.0173**	**0.0000**	**53.7767**

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 Grade Side - 2026

Unmitigated Construction On-Site

Date: 3/25/2024 2:36 PM

20-124 Alexandria Phase 3 - 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					0.1616	0.0000	0.1616	0.0188	0.0000	0.0188	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-003	0.0142	0.0130	3.0000e-005		5.8000e-004	5.8000e-004		5.3000e-004	5.3000e-004	0.0000	2.7681	2.7681	8.9000e-004	0.0000	2.7903
Total	**1.5000e-003**	**0.0142**	**0.0130**	**3.0000e-005**	**0.1616**	**5.8000e-004**	**0.1622**	**0.0188**	**5.3000e-004**	**0.0193**	**0.0000**	**2.7681**	**2.7681**	**8.9000e-004**	**0.0000**	**2.7903**

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

20-124 Alexandria Phase 3 - 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					0.0727	0.0000	0.0727	8.4400e-003	0.0000	8.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	9.0600e-003	0.0176	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.7681	2.7681	8.9000e-004	0.0000	2.7903
Total	**5.2000e-004**	**9.0600e-003**	**0.0176**	**3.0000e-005**	**0.0727**	**5.0000e-005**	**0.0728**	**8.4400e-003**	**5.0000e-005**	**8.4900e-003**	**0.0000**	**2.7681**	**2.7681**	**8.9000e-004**	**0.0000**	**2.7903**

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 Grade Side - 2027

Unmitigated Construction On-Site

20-124 Alexandria Phase 3 - 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					0.3490	0.0000	0.3490	0.1218	0.0000	0.1218	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1262	1.1924	1.0876	2.6600e-003		0.0483	0.0483		0.0446	0.0446	0.0000	232.5218	232.5218	0.0744	0.0000	234.3813
Total	**0.1262**	**1.1924**	**1.0876**	**2.6600e-003**	**0.3490**	**0.0483**	**0.3974**	**0.1218**	**0.0446**	**0.1664**	**0.0000**	**232.5218**	**232.5218**	**0.0744**	**0.0000**	**234.3813**

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

20-124 Alexandria Phase 3 - 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					0.1571	0.0000	0.1571	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.7613	1.4807	2.6600e-003		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	232.5216	232.5216	0.0744	0.0000	234.3810
Total	**0.0436**	**0.7613**	**1.4807**	**2.6600e-003**	**0.1571**	**4.2600e-003**	**0.1613**	**0.0548**	**4.2600e-003**	**0.0591**	**0.0000**	**232.5216**	**232.5216**	**0.0744**	**0.0000**	**234.3810**

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 Drill Displacement Piles - 2027

Unmitigated Construction On-Site

20-124 Alexandria Phase 3 - 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	0.0457	0.4381	0.2901	9.1000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	79.2529	79.2529	0.0250	0.0000	79.8790
Total	**0.0457**	**0.4381**	**0.2901**	**9.1000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**79.2529**	**79.2529**	**0.0250**	**0.0000**	**79.8790**

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

20-124 Alexandria Phase 3 - 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	0.0147	0.2457	0.4781	9.1000e-004		2.2400e-003	2.2400e-003		2.2400e-003	2.2400e-003	0.0000	79.2528	79.2528	0.0250	0.0000	79.8789
Total	**0.0147**	**0.2457**	**0.4781**	**9.1000e-004**		**2.2400e-003**	**2.2400e-003**		**2.2400e-003**	**2.2400e-003**	**0.0000**	**79.2528**	**79.2528**	**0.0250**	**0.0000**	**79.8789**

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 Dewatering - 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

20-124 Alexandria Phase 3 - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	3.7300e-003	4.0700e-003	2.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004	0.0000	1.6642	1.6642	5.4000e-004	0.0000	1.6777
Total	**4.2000e-004**	**3.7300e-003**	**4.0700e-003**	**2.0000e-005**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.6642**	**1.6642**	**5.4000e-004**	**0.0000**	**1.6777**

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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	5.0300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.6642	1.6642	5.4000e-004	0.0000	1.6777
Total	**3.1000e-004**	**5.0300e-003**	**0.0101**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.6642**	**1.6642**	**5.4000e-004**	**0.0000**	**1.6777**

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**

3.8 Shoring and Excavation - 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

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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	9.9900e-003	0.0799	0.1559	3.6000e-004		3.4100e-003	3.4100e-003		3.1300e-003	3.1300e-003	0.0000	31.1829	31.1829	0.0101	0.0000	31.4350
Total	**9.9900e-003**	**0.0799**	**0.1559**	**3.6000e-004**		**3.4100e-003**	**3.4100e-003**		**3.1300e-003**	**3.1300e-003**	**0.0000**	**31.1829**	**31.1829**	**0.0101**	**0.0000**	**31.4350**

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					

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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	5.1400e-003	0.1274	0.2322	3.6000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.1829	31.1829	0.0101	0.0000	31.4350
Total	**5.1400e-003**	**0.1274**	**0.2322**	**3.6000e-004**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**31.1829**	**31.1829**	**0.0101**	**0.0000**	**31.4350**

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**

3.9 Concrete/Rebar/Waterproofing - 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	0.0674	0.5976	0.8348	1.4900e-003		0.0256	0.0256		0.0250	0.0250	0.0000	128.6497	128.6497	0.0128	0.0000	128.9702

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

Total	**0.0674**	**0.5976**	**0.8348**	**1.4900e-003**		**0.0256**	**0.0256**		**0.0250**	**0.0250**	**0.0000**	**128.6497**	**128.6497**	**0.0128**	**0.0000**	**128.9702**

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	0.0282	0.5555	0.9328	1.4900e-003		5.8300e-003	5.8300e-003		5.8300e-003	5.8300e-003	0.0000	128.6495	128.6495	0.0128	0.0000	128.9701
Total	**0.0282**	**0.5555**	**0.9328**	**1.4900e-003**		**5.8300e-003**	**5.8300e-003**		**5.8300e-003**	**5.8300e-003**	**0.0000**	**128.6495**	**128.6495**	**0.0128**	**0.0000**	**128.9701**

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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**

3.10 Structural Steel - 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	0.1016	0.8464	0.9667	1.8400e-003		0.0323	0.0323		0.0311	0.0311	0.0000	152.9056	152.9056	0.0260	0.0000	153.5555
Total	**0.1016**	**0.8464**	**0.9667**	**1.8400e-003**		**0.0323**	**0.0323**		**0.0311**	**0.0311**	**0.0000**	**152.9056**	**152.9056**	**0.0260**	**0.0000**	**153.5555**

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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	0.0326	0.7548	1.0812	1.8400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	152.9054	152.9054	0.0260	0.0000	153.5553
Total	**0.0326**	**0.7548**	**1.0812**	**1.8400e-003**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**152.9054**	**152.9054**	**0.0260**	**0.0000**	**153.5553**

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**

3.10 Structural Steel - 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	0.0657	0.5471	0.6248	1.1900e-003		0.0209	0.0209		0.0201	0.0201	0.0000	98.8292	98.8292	0.0168	0.0000	99.2493
Total	**0.0657**	**0.5471**	**0.6248**	**1.1900e-003**		**0.0209**	**0.0209**		**0.0201**	**0.0201**	**0.0000**	**98.8292**	**98.8292**	**0.0168**	**0.0000**	**99.2493**

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	0.0211	0.4879	0.6988	1.1900e-003		8.4800e-003	8.4800e-003		8.4800e-003	8.4800e-003	0.0000	98.8291	98.8291	0.0168	0.0000	99.2492
Total	**0.0211**	**0.4879**	**0.6988**	**1.1900e-003**		**8.4800e-003**	**8.4800e-003**		**8.4800e-003**	**8.4800e-003**	**0.0000**	**98.8291**	**98.8291**	**0.0168**	**0.0000**	**99.2492**

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**

3.11 Concrete Decks - 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	0.0874	0.6961	1.0501	1.8000e-003		0.0295	0.0295		0.0292	0.0292	0.0000	153.4128	153.4128	0.0104	0.0000	153.6733
Total	**0.0874**	**0.6961**	**1.0501**	**1.8000e-003**		**0.0295**	**0.0295**		**0.0292**	**0.0292**	**0.0000**	**153.4128**	**153.4128**	**0.0104**	**0.0000**	**153.6733**

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	0.0321	0.6243	1.0794	1.8000e-003		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	153.4126	153.4126	0.0104	0.0000	153.6731
Total	**0.0321**	**0.6243**	**1.0794**	**1.8000e-003**		**2.3300e-003**	**2.3300e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**153.4126**	**153.4126**	**0.0104**	**0.0000**	**153.6731**

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**

3.12 Fireproofing - 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	9.5100e-003	0.0899	0.1307	1.8000e-004		4.4800e-003	4.4800e-003		4.1300e-003	4.1300e-003	0.0000	15.4465	15.4465	5.0000e-003	0.0000	15.5714
Total	**9.5100e-003**	**0.0899**	**0.1307**	**1.8000e-004**		**4.4800e-003**	**4.4800e-003**		**4.1300e-003**	**4.1300e-003**	**0.0000**	**15.4465**	**15.4465**	**5.0000e-003**	**0.0000**	**15.5714**

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	3.9800e-003	0.0775	0.1339	1.8000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	15.4465	15.4465	5.0000e-003	0.0000	15.5714
Total	**3.9800e-003**	**0.0775**	**0.1339**	**1.8000e-004**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**15.4465**	**15.4465**	**5.0000e-003**	**0.0000**	**15.5714**

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**

3.13 Exterior Skin - 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					
Archit. Coating	3.5351					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0244	0.3039	0.4502	8.0000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	69.9211	69.9211	0.0226	0.0000	70.4864
Total	**3.5596**	**0.3039**	**0.4502**	**8.0000e-004**		**8.7900e-003**	**8.7900e-003**		**8.0900e-003**	**8.0900e-003**	**0.0000**	**69.9211**	**69.9211**	**0.0226**	**0.0000**	**70.4864**

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	3.5351					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0178	0.3822	0.5582	8.0000e-004		0.0131	0.0131		0.0131	0.0131	0.0000	69.9210	69.9210	0.0226	0.0000	70.4864
Total	**3.5530**	**0.3822**	**0.5582**	**8.0000e-004**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**69.9210**	**69.9210**	**0.0226**	**0.0000**	**70.4864**

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**

3.14 Landscaping and Hardscape - 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	0.0147	0.1385	0.2279	3.5000e-004		5.8200e-003	5.8200e-003		5.4800e-003	5.4800e-003	0.0000	30.3500	30.3500	7.4500e-003	0.0000	30.5362
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0147**	**0.1385**	**0.2279**	**3.5000e-004**		**5.8200e-003**	**5.8200e-003**		**5.4800e-003**	**5.4800e-003**	**0.0000**	**30.3500**	**30.3500**	**7.4500e-003**	**0.0000**	**30.5362**

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	6.7200e-003	0.1433	0.2475	3.5000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	30.3500	30.3500	7.4500e-003	0.0000	30.5362
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7200e-003**	**0.1433**	**0.2475**	**3.5000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**30.3500**	**30.3500**	**7.4500e-003**	**0.0000**	**30.5362**

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**

3.14 Landscaping and Hardscape - 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	5.3900e-003	0.0509	0.0838	1.3000e-004		2.1400e-003	2.1400e-003		2.0100e-003	2.0100e-003	0.0000	11.1543	11.1543	2.7400e-003	0.0000	11.2227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.3900e-003**	**0.0509**	**0.0838**	**1.3000e-004**		**2.1400e-003**	**2.1400e-003**		**2.0100e-003**	**2.0100e-003**	**0.0000**	**11.1543**	**11.1543**	**2.7400e-003**	**0.0000**	**11.2227**

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	2.4700e-003	0.0527	0.0910	1.3000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	11.1543	11.1543	2.7400e-003	0.0000	11.2227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.4700e-003**	**0.0527**	**0.0910**	**1.3000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**11.1543**	**11.1543**	**2.7400e-003**	**0.0000**	**11.2227**

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**

3.15 MEP - 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	5.4500e-003	0.0533	0.0458	1.0000e-004		2.5600e-003	2.5600e-003		2.3600e-003	2.3600e-003	0.0000	8.4067	8.4067	2.7200e-003	0.0000	8.4747
Total	**5.4500e-003**	**0.0533**	**0.0458**	**1.0000e-004**		**2.5600e-003**	**2.5600e-003**		**2.3600e-003**	**2.3600e-003**	**0.0000**	**8.4067**	**8.4067**	**2.7200e-003**	**0.0000**	**8.4747**

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**

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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 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	1.8600e-003	0.0358	0.0595	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4067	8.4067	2.7200e-003	0.0000	8.4747
Total	**1.8600e-003**	**0.0358**	**0.0595**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4067**	**8.4067**	**2.7200e-003**	**0.0000**	**8.4747**

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**

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

3.16 Roofing - 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	6.2900e-003	0.0587	0.0787	1.3000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**6.2900e-003**	**0.0587**	**0.0787**	**1.3000e-004**		**2.9700e-003**	**2.9700e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

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					
Off-Road	1.6400e-003	0.0547	0.0951	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.2914	11.2914	3.6500e-003	0.0000	11.3827
Total	**1.6400e-003**	**0.0547**	**0.0951**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.2914**	**11.2914**	**3.6500e-003**	**0.0000**	**11.3827**

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**

3.17 Framing/Drywall - 2028

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	5.4900e-003	0.0537	0.0463	1.0000e-004		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**5.4900e-003**	**0.0537**	**0.0463**	**1.0000e-004**		**2.5800e-003**	**2.5800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

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	1.8800e-003	0.0361	0.0600	1.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	8.4697	8.4697	2.7400e-003	0.0000	8.5382
Total	**1.8800e-003**	**0.0361**	**0.0600**	**1.0000e-004**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**8.4697**	**8.4697**	**2.7400e-003**	**0.0000**	**8.5382**

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**

3.18 Elevators - 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					

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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	0.0131	0.0869	0.1085	1.6000e-004		3.1600e-003	3.1600e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014
Total	**0.0131**	**0.0869**	**0.1085**	**1.6000e-004**		**3.1600e-003**	**3.1600e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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	3.0300e-003	0.1021	0.1010	1.6000e-004		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	12.4544	12.4544	1.8800e-003	0.0000	12.5014

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

Total	**3.0300e-003**	**0.1021**	**0.1010**	**1.6000e-004**		**3.0700e-003**	**3.0700e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**12.4544**	**12.4544**	**1.8800e-003**	**0.0000**	**12.5014**

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**

3.19 Other Interior Finishes - 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					
Archit. Coating	3.5351					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6900e-003	0.0370	0.0421	7.0000e-005		1.8300e-003	1.8300e-003		1.7300e-003	1.7300e-003	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410

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

Total	**3.5398**	**0.0370**	**0.0421**	**7.0000e-005**		**1.8300e-003**	**1.8300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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	3.5351					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8000e-004	0.0218	0.0309	7.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	5.3075	5.3075	1.3400e-003	0.0000	5.3410

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

Total	**3.5361**	**0.0218**	**0.0309**	**7.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**5.3075**	**5.3075**	**1.3400e-003**	**0.0000**	**5.3410**

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**

3.20 Startup & Commissioning - 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	2.2000e-004	2.0500e-003	2.8300e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	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	**2.2000e-004**	**2.0500e-003**	**2.8300e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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	9.0000e-005	1.6800e-003	2.9000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.3357	0.3357	1.1000e-004	0.0000	0.3384
Paving	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	**9.0000e-005**	**1.6800e-003**	**2.9000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.3357**	**0.3357**	**1.1000e-004**	**0.0000**	**0.3384**

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**

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

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Category	tons/yr										MT/yr					
Mitigated	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075
Unmitigated	1.2821	1.2859	11.1442	0.0405	3.8698	0.0206	3.8904	0.9661	0.0192	0.9853	0.0000	3,753.7337	3,753.7337	0.1340	0.1551	3,803.3075

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Research & Development	6,087.61	1,026.99	601.33	11,480,886	11,480,886
Total	6,087.61	1,026.99	601.33	11,480,886	11,480,886

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Research & Development	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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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					
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

	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					
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
Research & Development	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

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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					
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
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	5.02009e+006	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			
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	5.02009e+006	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	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Unmitigated	2.9967	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156

6.2 Area by SubCategory

Unmitigated

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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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Total	**2.9967**	**7.0000e-005**	**7.4900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0147**	**0.0147**	**4.0000e-005**	**0.0000**	**0.0156**

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	0.3535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.4900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Total	**2.9967**	**7.0000e-005**	**7.4900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0147**	**0.0147**	**4.0000e-005**	**0.0000**	**0.0156**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	117.5375	0.4046	0.2556	203.8218
Unmitigated	117.5375	0.4046	0.2556	203.8218

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	332.213 / 0	117.5375	0.4046	0.2556	203.8218
Total		**117.5375**	**0.4046**	**0.2556**	**203.8218**

Mitigated

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

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	332.213 / 0	117.5375	0.4046	0.2556	203.8218
Total		**117.5375**	**0.4046**	**0.2556**	**203.8218**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.4216	0.6159	0.0000	25.8190
Unmitigated	10.4216	0.6159	0.0000	25.8190

8.2 Waste by Land Use

Unmitigated

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	51.34	10.4216	0.6159	0.0000	25.8190
Total		**10.4216**	**0.6159**	**0.0000**	**25.8190**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	51.34	10.4216	0.6159	0.0000	25.8190
Total		**10.4216**	**0.6159**	**0.0000**	**25.8190**

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
Research & Development	1,734.53	1000sqft	24.70	1,734,532.00	0
Day-Care Center	9.44	1000sqft	0.00	9,443.00	0
Library	2.10	1000sqft	0.00	2,100.00	0
Parking Lot	144.00	Space	0.00	57,600.00	0
Unenclosed Parking with Elevator	3,373.00	Space	0.00	1,349,200.00	0
City Park	2.00	Acre	0.00	87,120.00	0
Convenience Market (24 hour)	4.50	1000sqft	0.00	4,500.00	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 - Unit amounts, acreage, and square footage provided by applicant. Library land use for community center.

Construction Phase - Operational Only

Off-road Equipment - Operational Only

Vehicle Trips - Trip rates based on info provided by applicant. City park is greenspace. Weekend rates for library (community center) left at defaults.

Vehicle Emission Factors - Emission factors from EMFAC2021

Date: 3/27/2024 5:24 PM

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Consumer Products -

Area Coating -

Energy Use - Reach code bans nat gas

Water And Wastewater - 100% aerobic

Fleet Mix - Fleet Mix from EMFAC2021

Stationary Sources - Emergency Generators and Fire Pumps - Applicant provided generator sizes for base buildings plus additional generators for tenants.

Stationary Sources - Emergency Generators and Fire Pumps EF - BAAQMD BACT for ICE > 1000 BHP

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.36	3.57
tblEnergyUse	NT24E	1.27	1.74
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24NG	0.70	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	T24E	2.00	3.13
tblEnergyUse	T24E	0.59	4.90
tblEnergyUse	T24E	1.08	6.26
tblEnergyUse	T24E	1.08	6.26
tblEnergyUse	T24NG	3.86	0.00
tblEnergyUse	T24NG	14.70	0.00
tblEnergyUse	T24NG	17.67	0.00
tblEnergyUse	T24NG	17.67	0.00
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003

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tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-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	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	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	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04

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tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
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	MDV	0.16	0.18
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004

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tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003

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tblLandUse	LandUseSquareFeet	1,734,530.00	1,734,532.00
tblLandUse	LandUseSquareFeet	9,440.00	9,443.00
tblLandUse	LotAcreage	39.82	24.70
tblLandUse	LotAcreage	0.22	0.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	1.30	0.00
tblLandUse	LotAcreage	30.36	0.00
tblLandUse	LotAcreage	2.00	0.00
tblLandUse	LotAcreage	0.10	0.00
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,012.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,683.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	6.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	6.00
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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
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

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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	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
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

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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	0.03
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
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

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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	0.01	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
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

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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	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	1.96	0.00
tblVehicleTrips	ST_TR	1,084.17	976.00
tblVehicleTrips	ST_TR	6.22	2.74
tblVehicleTrips	ST_TR	1.90	1.52
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	901.17	811.25
tblVehicleTrips	SU_TR	5.84	2.57
tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	762.28	686.22

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

tblVehicleTrips	WD_TR	47.62	20.97
tblVehicleTrips	WD_TR	72.05	29.05
tblVehicleTrips	WD_TR	11.26	9.01
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	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	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
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Date: 3/27/2024 5:24 PM

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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
Year	tons/yr										MT/yr					
2023	0.0230	0.2151	0.1993	4.0000e-004	1.1800e-003	9.9800e-003	0.0112	3.1000e-004	9.2900e-003	9.6000e-003	0.0000	34.8697	34.8697	9.5400e-003	2.0000e-005	35.1148
Maximum	**0.0230**	**0.2151**	**0.1993**	**4.0000e-004**	**1.1800e-003**	**9.9800e-003**	**0.0112**	**3.1000e-004**	**9.2900e-003**	**9.6000e-003**	**0.0000**	**34.8697**	**34.8697**	**9.5400e-003**	**2.0000e-005**	**35.1148**

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	0.0230	0.2151	0.1993	4.0000e-004	1.1800e-003	9.9800e-003	0.0112	3.1000e-004	9.2900e-003	9.6000e-003	0.0000	34.8697	34.8697	9.5400e-003	2.0000e-005	35.1148
Maximum	**0.0230**	**0.2151**	**0.1993**	**4.0000e-004**	**1.1800e-003**	**9.9800e-003**	**0.0112**	**3.1000e-004**	**9.2900e-003**	**9.6000e-003**	**0.0000**	**34.8697**	**34.8697**	**9.5400e-003**	**2.0000e-005**	**35.1148**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	0.2296	0.2296
		Highest	0.2296	0.2296

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

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	7.8752	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
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	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991
Stationary	1.1557	0.5667	2.9469	5.5500e-003		0.0227	0.0227		0.0227	0.0227	0.0000	536.3529	536.3529	0.0752	0.0000	538.2328
Waste						0.0000	0.0000		0.0000	0.0000	32.4177	0.0000	32.4177	1.9158	0.0000	80.3134
Water						0.0000	0.0000		0.0000	0.0000	302.0269	0.0000	302.0269	1.0395	0.6568	523.7448
Total	**13.2547**	**4.4580**	**36.6840**	**0.1203**	**10.9005**	**0.0822**	**10.9827**	**2.7213**	**0.0782**	**2.7995**	**334.4446**	**11,174.3443**	**11,508.7888**	**3.4511**	**1.1175**	**11,928.0903**

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	7.8752	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
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

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

Mobile	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991
Stationary	1.1557	0.5667	2.9469	5.5500e-003		0.0227	0.0227		0.0227	0.0227	0.0000	536.3529	536.3529	0.0752	0.0000	538.2328
Waste						0.0000	0.0000		0.0000	0.0000	32.4177	0.0000	32.4177	1.9158	0.0000	80.3134
Water						0.0000	0.0000		0.0000	0.0000	302.0269	0.0000	302.0269	1.0395	0.6568	523.7448
Total	**13.2547**	**4.4580**	**36.6840**	**0.1203**	**10.9005**	**0.0822**	**10.9827**	**2.7213**	**0.0782**	**2.7995**	**334.4446**	**11,174.3443**	**11,508.7888**	**3.4511**	**1.1175**	**11,928.0903**

	ROG	NOx	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	1/1/2023	1/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating –

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

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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
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
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**		**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**

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

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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	3.2000e-004	2.1000e-004	2.9100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.8777	0.8777	2.0000e-005	2.0000e-005	0.8848
Total	**3.2000e-004**	**2.1000e-004**	**2.9100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8777**	**0.8777**	**2.0000e-005**	**2.0000e-005**	**0.8848**

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	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**		**9.9800e-003**	**9.9800e-003**		**9.2800e-003**	**9.2800e-003**	**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

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

Worker	3.2000e-004	2.1000e-004	2.9100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.8777	0.8777	2.0000e-005	2.0000e-005	0.8848
Total	**3.2000e-004**	**2.1000e-004**	**2.9100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8777**	**0.8777**	**2.0000e-005**	**2.0000e-005**	**0.8848**

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	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991
Unmitigated	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Convenience Market (24 hour)	3,087.99	4,392.00	3650.63	2,554,827	2,554,827
Day-Care Center	197.96	25.87	24.26	174,947	174,947
Library	61.01	168.19	88.39	135,977	135,977
Parking Lot	0.00	0.00	0.00		
Research & Development	15,628.12	2,636.49	1543.73	29,473,753	29,473,753
Unenclosed Parking with Elevator	0.00	0.00	0.00		

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Total	18,975.07	7,222.54	5,307.01	32,339,504	32,339,504

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Convenience Market (24 hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Convenience Market (24 hour)	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Day-Care Center	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Library	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Parking Lot	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Research & Development	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Unenclosed Parking with Elevator	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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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					
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

	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					
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
Convenience Market (24 hour)	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
Library	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
Research & Development	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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Unenclosed Parking with	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					
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
Convenience Market (24 hour)	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
Library	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
Research & Development	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 with	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

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	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	52110	0.0000	0.0000	0.0000	0.0000
Day-Care Center	86403.4	0.0000	0.0000	0.0000	0.0000
Library	30723	0.0000	0.0000	0.0000	0.0000
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	2.53762e+007	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	2.61745e+006	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			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	52110	0.0000	0.0000	0.0000	0.0000

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Day-Care Center	86403.4	0.0000	0.0000	0.0000	0.0000
Library	30723	0.0000	0.0000	0.0000	0.0000
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	2.53762e+007	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	2.61745e+006	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	7.8752	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
Unmitigated	7.8752	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002

6.2 Area by SubCategory

Unmitigated

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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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.9286					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4100e-003	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
Total	**7.8752**	**4.3000e-004**	**0.0482**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0942**	**0.0942**	**2.4000e-004**	**0.0000**	**0.1002**

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	0.9422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.9286					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4100e-003	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
Total	**7.8752**	**4.3000e-004**	**0.0482**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0942**	**0.0942**	**2.4000e-004**	**0.0000**	**0.1002**

7.0 Water Detail

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

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	302.0269	1.0395	0.6568	523.7448
Unmitigated	302.0269	1.0395	0.6568	523.7448

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	852.858 / 0	301.7425	1.0386	0.6562	523.2516

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Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**302.0269**	**1.0396**	**0.6568**	**523.7448**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	852.858 / 0	301.7425	1.0386	0.6562	523.2516
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**302.0269**	**1.0396**	**0.6568**	**523.7448**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	32.4177	1.9158	0.0000	80.3134
Unmitigated	32.4177	1.9158	0.0000	80.3134

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	131.81	26.7562	1.5813	0.0000	66.2875
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

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

Total		**32.4177**	**1.9158**	**0.0000**	**80.3134**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	131.81	26.7562	1.5813	0.0000	66.2875
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**32.4177**	**1.9158**	**0.0000**	**80.3134**

9.0 Operational Offroad

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

10.0 Stationary Equipment

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	6	0	50	2683	0.73	Diesel
Emergency Generator	6	0	50	2012	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)	1.1557	0.5667	2.9469	5.5500e-003		0.0227	0.0227		0.0227	0.0227	0.0000	536.3529	536.3529	0.0752	0.0000	538.2328
Total	**1.1557**	**0.5667**	**2.9469**	**5.5500e-003**		**0.0227**	**0.0227**		**0.0227**	**0.0227**	**0.0000**	**536.3529**	**536.3529**	**0.0752**	**0.0000**	**538.2328**

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
Research & Development	1,734.53	1000sqft	24.70	1,734,532.00	0
Day-Care Center	9.44	1000sqft	0.00	9,443.00	0
Library	2.10	1000sqft	0.00	2,100.00	0
Parking Lot	144.00	Space	0.00	57,600.00	0
Unenclosed Parking with Elevator	3,373.00	Space	0.00	1,349,200.00	0
City Park	2.00	Acre	0.00	87,120.00	0
Convenience Market (24 hour)	4.50	1000sqft	0.00	4,500.00	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 - Unit amounts, acreage, and square footage provided by applicant. Library land use for community center.

Construction Phase - Operational Only

Off-road Equipment - Operational Only

Vehicle Trips - Trip rates based on info provided by applicant. City park is greenspace. Weekend rates for library (community center) left at defaults.

Vehicle Emission Factors - Emission factors from EMFAC2021

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Consumer Products - Consumer ROG based adjustment made based on HAZUS square footage and San Mateo Population.

Area Coating - Operational - At least 90% of paints have to be super-compliant VOC = 10 g/L interior and exterior

Energy Use - Reach code bans nat gas

Water And Wastewater - 100% aerobic

Fleet Mix - Fleet Mix from EMFAC2021

Stationary Sources - Emergency Generators and Fire Pumps - Applicant provided generator sizes for base buildings plus additional generators for tenants.

Stationary Sources - Emergency Generators and Fire Pumps EF - BAAQMD BACT for ICE > 1000 BHP

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblConsumerProducts	ROG_EF	2.14E-05	1.95E-05
tblEnergyUse	NT24E	3.36	3.57
tblEnergyUse	NT24E	1.27	1.74
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24E	3.36	5.38
tblEnergyUse	NT24NG	0.70	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	NT24NG	6.90	0.00
tblEnergyUse	T24E	2.00	3.13
tblEnergyUse	T24E	0.59	4.90
tblEnergyUse	T24E	1.08	6.26
tblEnergyUse	T24E	1.08	6.26
tblEnergyUse	T24NG	3.86	0.00
tblEnergyUse	T24NG	14.70	0.00
tblEnergyUse	T24NG	17.67	0.00
tblEnergyUse	T24NG	17.67	0.00
tblFleetMix	HHD	1.7910e-003	7.3150e-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	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-003
tblFleetMix	HHD	1.7910e-003	7.3150e-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	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	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	LDT2	0.25	0.31
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04

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tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD1	0.03	0.04
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	LHD2	7.1360e-003	8.4120e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
tblFleetMix	MCY	0.03	4.4930e-003
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	MDV	0.16	0.18
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004

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tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MH	2.9170e-003	7.0600e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	OBUS	1.3500e-003	4.7190e-003
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	SBUS	4.2100e-004	4.4200e-004
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003

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tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblFleetMix	UBUS	4.9600e-004	1.8230e-003
tblLandUse	LandUseSquareFeet	1,734,530.00	1,734,532.00
tblLandUse	LandUseSquareFeet	9,440.00	9,443.00
tblLandUse	LotAcreage	39.82	24.70
tblLandUse	LotAcreage	0.22	0.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	1.30	0.00
tblLandUse	LotAcreage	30.36	0.00
tblLandUse	LotAcreage	2.00	0.00
tblLandUse	LotAcreage	0.10	0.00
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,012.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,682.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	6.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	6.00
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

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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
tblVehicleEF	HHD	1.4000e-005	2.0000e-006
tblVehicleEF	HHD	7.5950e-003	5.6170e-003
tblVehicleEF	HHD	0.01	0.01

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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
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.9250e-003	3.8520e-003
tblVehicleEF	LDA	0.03	0.16

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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
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.4220e-003	9.0470e-003

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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
tblVehicleEF	LDT2	0.03	0.16
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.03	0.00

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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
tblVehicleEF	LHD1	9.1600e-004	6.1700e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	9.8940e-003	9.2640e-003

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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
tblVehicleEF	LHD2	4.1310e-003	7.5520e-003
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.44	0.32

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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
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	1.2100e-004	1.2300e-004
tblVehicleEF	LHD2	6.4670e-003	6.5820e-003

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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
tblVehicleEF	MCY	0.36	0.00
tblVehicleEF	MCY	2.13	0.79
tblVehicleEF	MCY	0.39	3.67

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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
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.04	0.00
tblVehicleEF	MDV	4.5430e-003	5.3030e-003

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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
tblVehicleEF	MH	8.6970e-003	0.01
tblVehicleEF	MH	2.0500e-004	2.2800e-004
tblVehicleEF	MH	0.16	10.82

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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
tblVehicleEF	MHD	1.31	0.56
tblVehicleEF	MHD	1.67	1.12
tblVehicleEF	MHD	1.1600e-004	6.3600e-004

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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
tblVehicleEF	OBUS	0.01	8.2390e-003
tblVehicleEF	OBUS	0.67	0.50
tblVehicleEF	OBUS	0.22	0.16

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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
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.1800e-004	7.5000e-005
tblVehicleEF	OBUS	6.9700e-004	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	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
tblVehicleEF	SBUS	1.7210e-003	7.2300e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.4240e-003	2.4700e-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	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
tblVehicleEF	UBUS	5.7250e-003	6.8380e-003
tblVehicleEF	UBUS	0.67	0.21
tblVehicleEF	UBUS	0.07	0.04

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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	1.96	0.00
tblVehicleTrips	ST_TR	1,084.17	976.00
tblVehicleTrips	ST_TR	6.22	2.74
tblVehicleTrips	ST_TR	1.90	1.52
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	901.17	811.25
tblVehicleTrips	SU_TR	5.84	2.57

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tblVehicleTrips	SU_TR	1.11	0.89
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	762.28	686.22
tblVehicleTrips	WD_TR	47.62	20.97
tblVehicleTrips	WD_TR	72.05	29.05
tblVehicleTrips	WD_TR	11.26	9.01
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	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	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
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

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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	0.0230	0.2151	0.1993	4.0000e-004	1.1800e-003	9.9800e-003	0.0112	3.1000e-004	9.2900e-003	9.6000e-003	0.0000	34.8697	34.8697	9.5400e-003	2.0000e-005	35.1148
Maximum	**0.0230**	**0.2151**	**0.1993**	**4.0000e-004**	**1.1800e-003**	**9.9800e-003**	**0.0112**	**3.1000e-004**	**9.2900e-003**	**9.6000e-003**	**0.0000**	**34.8697**	**34.8697**	**9.5400e-003**	**2.0000e-005**	**35.1148**

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	0.0230	0.2151	0.1993	4.0000e-004	1.1800e-003	9.9800e-003	0.0112	3.1000e-004	9.2900e-003	9.6000e-003	0.0000	34.8697	34.8697	9.5400e-003	2.0000e-005	35.1148
Maximum	**0.0230**	**0.2151**	**0.1993**	**4.0000e-004**	**1.1800e-003**	**9.9800e-003**	**0.0112**	**3.1000e-004**	**9.2900e-003**	**9.6000e-003**	**0.0000**	**34.8697**	**34.8697**	**9.5400e-003**	**2.0000e-005**	**35.1148**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

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

1	**1-1-2023**	**3-31-2023**	0.2296	0.2296
		Highest	0.2296	0.2296

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	6.4365	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
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	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991
Stationary	1.1555	0.5666	2.9462	5.5500e-003		0.0227	0.0227		0.0227	0.0227	0.0000	536.2386	536.2386	0.0752	0.0000	538.1181
Waste						0.0000	0.0000		0.0000	0.0000	32.4177	0.0000	32.4177	1.9158	0.0000	80.3134
Water						0.0000	0.0000		0.0000	0.0000	302.0269	0.0000	302.0269	1.0395	0.6568	523.7448
Total	**11.8158**	**4.4579**	**36.6834**	**0.1203**	**10.9005**	**0.0822**	**10.9827**	**2.7213**	**0.0782**	**2.7994**	**334.4446**	**11,174.2300**	**11,508.6746**	**3.4511**	**1.1175**	**11,927.9757**

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					

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

Area	6.4365	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
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	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991
Stationary	1.1555	0.5666	2.9462	5.5500e-003		0.0227	0.0227		0.0227	0.0227	0.0000	536.2386	536.2386	0.0752	0.0000	538.1181
Waste						0.0000	0.0000		0.0000	0.0000	32.4177	0.0000	32.4177	1.9158	0.0000	80.3134
Water						0.0000	0.0000		0.0000	0.0000	302.0269	0.0000	302.0269	1.0395	0.6568	523.7448
Total	**11.8158**	**4.4579**	**36.6834**	**0.1203**	**10.9005**	**0.0822**	**10.9827**	**2.7213**	**0.0782**	**2.7994**	**334.4446**	**11,174.2300**	**11,508.6746**	**3.4511**	**1.1175**	**11,927.9757**

	ROG	NOx	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	1/1/2023	1/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

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Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
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**		**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**

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	3.2000e-004	2.1000e-004	2.9100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.8777	0.8777	2.0000e-005	2.0000e-005	0.8848
Total	**3.2000e-004**	**2.1000e-004**	**2.9100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8777**	**0.8777**	**2.0000e-005**	**2.0000e-005**	**0.8848**

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	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**		**9.9800e-003**	**9.9800e-003**		**9.2800e-003**	**9.2800e-003**	**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					

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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	3.2000e-004	2.1000e-004	2.9100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.8777	0.8777	2.0000e-005	2.0000e-005	0.8848
Total	**3.2000e-004**	**2.1000e-004**	**2.9100e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8777**	**0.8777**	**2.0000e-005**	**2.0000e-005**	**0.8848**

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	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991
Unmitigated	4.2238	3.8909	33.6890	0.1148	10.9005	0.0593	10.9599	2.7213	0.0554	2.7766	0.0000	10,637.8972	10,637.8972	0.4203	0.4607	10,785.6991

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Convenience Market (24 hour)	3,087.99	4,392.00	3650.63	2,554,827	2,554,827
Day-Care Center	197.96	25.87	24.26	174,947	174,947

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

Library	61.01	168.19	88.39	135,977	135,977
Parking Lot	0.00	0.00	0.00		
Research & Development	15,628.12	2,636.49	1543.73	29,473,753	29,473,753
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	18,975.07	7,222.54	5,307.01	32,339,504	32,339,504

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Convenience Market (24 hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Convenience Market (24 hour)	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Day-Care Center	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Library	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Parking Lot	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Research & Development	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706
Unenclosed Parking with Elevator	0.392953	0.038140	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

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	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

	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					
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
Convenience Market (24 hour)	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
Library	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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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Research & Development	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 with	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					
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
Convenience Market (24 hour)	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
Library	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
Research & Development	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 with	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	52110	0.0000	0.0000	0.0000	0.0000
Day-Care Center	86403.4	0.0000	0.0000	0.0000	0.0000
Library	30723	0.0000	0.0000	0.0000	0.0000
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	2.53762e+007	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	2.61745e+006	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			
City Park	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	52110	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

Day-Care Center	86403.4	0.0000	0.0000	0.0000	0.0000
Library	30723	0.0000	0.0000	0.0000	0.0000
Parking Lot	20160	0.0000	0.0000	0.0000	0.0000
Research & Development	2.53762e+007	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with	2.61745e+006	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	6.4365	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
Unmitigated	6.4365	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002

6.2 Area by SubCategory

Unmitigated

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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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3216					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4100e-003	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
Total	**6.4365**	**4.3000e-004**	**0.0482**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0942**	**0.0942**	**2.4000e-004**	**0.0000**	**0.1002**

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	0.1105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3216					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4100e-003	4.3000e-004	0.0482	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0942	0.0942	2.4000e-004	0.0000	0.1002
Total	**6.4365**	**4.3000e-004**	**0.0482**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0942**	**0.0942**	**2.4000e-004**	**0.0000**	**0.1002**

7.0 Water Detail

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

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	302.0269	1.0395	0.6568	523.7448
Unmitigated	302.0269	1.0395	0.6568	523.7448

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	852.858 / 0	301.7425	1.0386	0.6562	523.2516

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

Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**302.0269**	**1.0396**	**0.6568**	**523.7448**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.38296	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 hour)	0.333326 / 0.204297	0.1179	4.1000e-004	2.6000e-004	0.2045
Day-Care Center	0.404878 / 1.04111	0.1433	4.9000e-004	3.1000e-004	0.2484
Library	0.0657067 / 0.102772	0.0233	8.0000e-005	5.0000e-005	0.0403
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	852.858 / 0	301.7425	1.0386	0.6562	523.2516
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**302.0269**	**1.0396**	**0.6568**	**523.7448**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	32.4177	1.9158	0.0000	80.3134
Unmitigated	32.4177	1.9158	0.0000	80.3134

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	131.81	26.7562	1.5813	0.0000	66.2875
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

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

Total		**32.4177**	**1.9158**	**0.0000**	**80.3134**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Convenience Market (24 hour)	13.52	2.7444	0.1622	0.0000	6.7992
Day-Care Center	12.27	2.4907	0.1472	0.0000	6.1706
Library	1.93	0.3918	0.0232	0.0000	0.9706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Research & Development	131.81	26.7562	1.5813	0.0000	66.2875
Unenclosed Parking with	0	0.0000	0.0000	0.0000	0.0000
Total		**32.4177**	**1.9158**	**0.0000**	**80.3134**

9.0 Operational Offroad

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

10.0 Stationary Equipment

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	6	0	50	2682	0.73	Diesel
Emergency Generator	6	0	50	2012	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)	1.1555	0.5666	2.9462	5.5500e-003		0.0227	0.0227		0.0227	0.0227	0.0000	536.2386	536.2386	0.0752	0.0000	538.1181
Total	**1.1555**	**0.5666**	**2.9462**	**5.5500e-003**		**0.0227**	**0.0227**		**0.0227**	**0.0227**	**0.0000**	**536.2386**	**536.2386**	**0.0752**	**0.0000**	**538.1181**

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

20-124 Alexandria Existing Use

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	181.81	1000sqft	4.17	181,812.00	0
Unrefrigerated Warehouse-No Rail	50.26	1000sqft	1.15	50,256.00	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	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 - Existing uses provided by applicant

Construction Phase - Operational only

Off-road Equipment - Operational Only

Vehicle Emission Factors - Emission factors from EMFAC2021

Fleet Mix - Fleet Mix from EMFAC2021

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblFleetMix	HHD	2.2470e-003	7.1773e-003
tblFleetMix	HHD	2.2470e-003	7.1773e-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	LDA	0.49	0.49
tblFleetMix	LDA	0.49	0.49
tblFleetMix	LDT1	0.07	0.04
tblFleetMix	LDT1	0.07	0.04
tblFleetMix	LDT2	0.22	0.25
tblFleetMix	LDT2	0.22	0.25
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	5.8150e-003	6.2253e-003
tblFleetMix	LHD2	5.8150e-003	6.2253e-003
tblFleetMix	MCY	0.03	3.8922e-003
tblFleetMix	MCY	0.03	3.8922e-003
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MH	2.4690e-003	5.7217e-004
tblFleetMix	MH	2.4690e-003	5.7217e-004
tblFleetMix	MHD	9.9900e-003	0.01
tblFleetMix	MHD	9.9900e-003	0.01
tblFleetMix	OBUS	1.5780e-003	5.0436e-003
tblFleetMix	OBUS	1.5780e-003	5.0436e-003
tblFleetMix	SBUS	4.4000e-004	3.9279e-004
tblFleetMix	SBUS	4.4000e-004	3.9279e-004
tblFleetMix	UBUS	6.3600e-004	1.8797e-003
tblFleetMix	UBUS	6.3600e-004	1.8797e-003
tblLandUse	LandUseSquareFeet	181,810.00	181,812.00
tblLandUse	LandUseSquareFeet	50,260.00	50,256.00
tblVehicleEF	HHD	0.03	0.26
tblVehicleEF	HHD	0.17	0.28
tblVehicleEF	HHD	3.0000e-006	6.7753e-007

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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	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
tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.28	0.30
tblVehicleEF	HHD	3.0000e-006	7.7195e-007
tblVehicleEF	HHD	5.83	4.43
tblVehicleEF	HHD	4.02	3.26
tblVehicleEF	HHD	2.10	2.39
tblVehicleEF	HHD	5.0230e-003	3.8271e-003
tblVehicleEF	HHD	0.06	0.10
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	2.0000e-006	5.8093e-006
tblVehicleEF	HHD	4.8060e-003	3.6571e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6930e-003	8.6225e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	1.0000e-006	5.3415e-006
tblVehicleEF	HHD	3.0000e-006	9.9091e-004
tblVehicleEF	HHD	1.6300e-004	2.7701e-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	2.2865e-003
tblVehicleEF	HHD	1.5000e-005	3.6777e-006

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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	8.8510e-003	6.9761e-003
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	2.0000e-006	3.1058e-006
tblVehicleEF	HHD	3.0000e-006	9.9091e-004
tblVehicleEF	HHD	1.6300e-004	2.7701e-004
tblVehicleEF	HHD	0.42	0.58
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.27	0.33
tblVehicleEF	HHD	7.5000e-005	2.2865e-003
tblVehicleEF	HHD	1.7000e-005	4.0266e-006
tblVehicleEF	LDA	2.0280e-003	2.3194e-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	4.5172e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.19	0.25
tblVehicleEF	LDA	0.04	6.4734e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.3690e-003	1.2842e-003
tblVehicleEF	LDA	1.8120e-003	2.1481e-003
tblVehicleEF	LDA	0.02	2.2657e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.2610e-003	1.1824e-003
tblVehicleEF	LDA	1.6660e-003	1.9752e-003
tblVehicleEF	LDA	0.03	0.27

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

tblVehicleEF	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	2.5755e-003
tblVehicleEF	LDA	5.1900e-004	6.6878e-004
tblVehicleEF	LDA	0.03	0.27
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	6.2872e-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	9.5155e-003
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.13
tblVehicleEF	LDT1	0.21	0.39
tblVehicleEF	LDT1	0.04	8.0921e-003
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.7500e-003	1.9809e-003
tblVehicleEF	LDT1	2.2560e-003	3.0326e-003
tblVehicleEF	LDT1	0.02	2.8322e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-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	LDT1	1.6100e-003	1.8230e-003
tblVehicleEF	LDT1	2.0740e-003	2.7886e-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	3.2711e-003
tblVehicleEF	LDT1	6.0700e-004	8.6787e-004
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	2.6021e-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	5.5378e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.25	0.32
tblVehicleEF	LDT2	0.04	7.7144e-003
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.4770e-003	1.3869e-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	1.8690e-003	2.1925e-003
tblVehicleEF	LDT2	0.02	2.7000e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.3590e-003	1.2760e-003
tblVehicleEF	LDT2	1.7190e-003	2.0159e-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	3.3905e-003
tblVehicleEF	LDT2	6.5200e-004	8.6580e-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	5.8431e-003
tblVehicleEF	LHD1	7.2240e-003	7.3839e-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	5.7945e-004

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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	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	5.8283e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.6980e-003	9.2052e-003
tblVehicleEF	LHD1	8.2510e-003	0.01
tblVehicleEF	LHD1	2.4800e-004	2.2575e-004
tblVehicleEF	LHD1	7.6300e-004	5.5762e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4250e-003	2.3013e-003
tblVehicleEF	LHD1	7.8460e-003	0.01
tblVehicleEF	LHD1	2.2800e-004	2.0757e-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	8.4366e-005
tblVehicleEF	LHD1	7.7840e-003	7.8580e-003
tblVehicleEF	LHD1	1.1900e-004	1.9952e-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

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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	0.10	0.09
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.07	0.13
tblVehicleEF	LHD2	3.3550e-003	3.6129e-003
tblVehicleEF	LHD2	6.3020e-003	6.7184e-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
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	1.2417e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.3800e-004	1.2418e-004
tblVehicleEF	LHD2	1.2960e-003	1.1880e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6700e-003	2.6257e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.2700e-004	1.1418e-004
tblVehicleEF	LHD2	7.5600e-004	0.07

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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	1.2823e-004
tblVehicleEF	LHD2	7.4680e-003	8.1627e-003
tblVehicleEF	LHD2	8.3000e-005	1.1409e-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	0.11	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	8.6711e-003
tblVehicleEF	MCY	1.15	0.56
tblVehicleEF	MCY	0.27	0.15
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0940e-003	2.0074e-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	MCY	3.3370e-003	4.0700e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9560e-003	1.8799e-003
tblVehicleEF	MCY	3.1380e-003	3.8358e-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	1.8654e-003
tblVehicleEF	MCY	6.0200e-004	4.9500e-004
tblVehicleEF	MCY	0.62	0.08
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	3.2007e-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	7.1729e-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

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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	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.5500e-003	1.4522e-003
tblVehicleEF	MDV	1.9760e-003	2.3427e-003
tblVehicleEF	MDV	0.02	2.7170e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.4290e-003	1.3380e-003
tblVehicleEF	MDV	1.8170e-003	2.1542e-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	4.0724e-003
tblVehicleEF	MDV	7.7700e-004	1.0347e-003
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

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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	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	3.6558e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2730e-003	3.3158e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	2.4900e-004	3.3613e-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
tblVehicleEF	MH	0.09	0.12
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7800e-004	2.2778e-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

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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	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	7.8622e-003
tblVehicleEF	MHD	0.49	1.01
tblVehicleEF	MHD	1.73	1.59
tblVehicleEF	MHD	1.39	1.20
tblVehicleEF	MHD	9.9300e-004	3.1933e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.2700e-004	1.4438e-004
tblVehicleEF	MHD	9.5000e-004	3.0547e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.1700e-004	1.3275e-004
tblVehicleEF	MHD	3.4300e-004	0.03
tblVehicleEF	MHD	0.02	8.8146e-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	1.4597e-003
tblVehicleEF	MHD	0.01	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	MHD	1.0200e-004	1.0883e-004
tblVehicleEF	MHD	3.4300e-004	0.03
tblVehicleEF	MHD	0.02	8.8146e-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	8.1587e-003
tblVehicleEF	OBUS	5.0760e-003	8.2525e-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
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	2.5835e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	9.2437e-003
tblVehicleEF	OBUS	1.3600e-004	1.0260e-004
tblVehicleEF	OBUS	7.5800e-004	2.4709e-004

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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	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	0.02	8.8368e-003
tblVehicleEF	OBUS	1.2500e-004	9.4337e-005
tblVehicleEF	OBUS	7.7900e-004	0.03
tblVehicleEF	OBUS	0.01	8.9138e-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	8.6709e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.3100e-004	1.0148e-004
tblVehicleEF	OBUS	7.7900e-004	0.03
tblVehicleEF	OBUS	0.01	8.9138e-003
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	3.9500e-004	0.00
tblVehicleEF	OBUS	0.07	0.05
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	7.9979e-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

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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	6.23	5.49
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	5.9500e-003	4.8573e-003
tblVehicleEF	SBUS	3.52	1.58
tblVehicleEF	SBUS	5.24	3.32
tblVehicleEF	SBUS	0.62	0.44
tblVehicleEF	SBUS	4.5830e-003	1.8679e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	9.6000e-005	7.3044e-005
tblVehicleEF	SBUS	4.3850e-003	1.7861e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.5990e-003	2.6003e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	8.9000e-005	6.7161e-005
tblVehicleEF	SBUS	5.6200e-004	0.05
tblVehicleEF	SBUS	7.2750e-003	0.01
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	1.8974e-003
tblVehicleEF	SBUS	9.8650e-003	9.5734e-003
tblVehicleEF	SBUS	6.2000e-005	5.4266e-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	0.51	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	7.7749e-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	6.8419e-003
tblVehicleEF	UBUS	5.0000e-005	1.5333e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.8010e-003	7.3406e-003
tblVehicleEF	UBUS	7.4180e-003	6.5413e-003
tblVehicleEF	UBUS	4.6000e-005	1.4098e-005
tblVehicleEF	UBUS	3.7600e-004	0.02
tblVehicleEF	UBUS	6.3660e-003	8.2353e-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

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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	0.02	0.01
tblVehicleEF	UBUS	9.2000e-005	5.6929e-005
tblVehicleEF	UBUS	3.7600e-004	0.02
tblVehicleEF	UBUS	6.3660e-003	8.2353e-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

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					
2021					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum					**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

	ROG	NOx	CO	SO2	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					
2021					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	1.0276	2.0000e-005	2.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.1500e-003	4.1500e-003	1.0000e-005	0.0000	4.4200e-003
Energy	0.0192	0.1741	0.1462	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.4977	189.4977	3.6300e-003	3.4700e-003	190.6238
Mobile	0.6260	0.7236	5.0604	0.0139	1.1633	9.7600e-003	1.1731	0.2902	9.1100e-003	0.2993	0.0000	1,283.9840	1,283.9840	0.0612	0.0598	1,303.3203
Waste						0.0000	0.0000		0.0000	0.0000	43.9110	0.0000	43.9110	2.5951	0.0000	108.7877
Water						0.0000	0.0000		0.0000	0.0000	13.9390	0.0000	13.9390	1.4317	0.0338	59.8045
Total	**1.6727**	**0.8977**	**5.2088**	**0.0149**	**1.1633**	**0.0230**	**1.1863**	**0.2902**	**0.0224**	**0.3125**	**57.8500**	**1,473.4859**	**1,531.3359**	**4.0916**	**0.0970**	**1,662.5407**

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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	1.0276	2.0000e-005	2.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.1500e-003	4.1500e-003	1.0000e-005	0.0000	4.4200e-003
Energy	0.0192	0.1741	0.1462	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.4977	189.4977	3.6300e-003	3.4700e-003	190.6238
Mobile	0.6260	0.7236	5.0604	0.0139	1.1633	9.7600e-003	1.1731	0.2902	9.1100e-003	0.2993	0.0000	1,283.9840	1,283.9840	0.0612	0.0598	1,303.3203
Waste						0.0000	0.0000		0.0000	0.0000	43.9110	0.0000	43.9110	2.5951	0.0000	108.7877
Water						0.0000	0.0000		0.0000	0.0000	13.9390	0.0000	13.9390	1.4317	0.0338	59.8045
Total	**1.6727**	**0.8977**	**5.2088**	**0.0149**	**1.1633**	**0.0230**	**1.1863**	**0.2902**	**0.0224**	**0.3125**	**57.8500**	**1,473.4859**	**1,531.3359**	**4.0916**	**0.0970**	**1,662.5407**

	ROG	NOx	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	12/23/2021	12/23/2021	5	1	

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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): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

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			0.00	0.00	10.80	7.30				

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction Off-Site

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

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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
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
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
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**

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					

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

Mitigated	0.6260	0.7236	5.0604	0.0139	1.1633	9.7600e-003	1.1731	0.2902	9.1100e-003	0.2993	0.0000	1,283.9840	1,283.9840	0.0612	0.0598	1,303.3203
Unmitigated	0.6260	0.7236	5.0604	0.0139	1.1633	9.7600e-003	1.1731	0.2902	9.1100e-003	0.2993	0.0000	1,283.9840	1,283.9840	0.0612	0.0598	1,303.3203

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,770.83	401.80	127.27	3,203,366	3,203,366
Unrefrigerated Warehouse-No Rail	87.45	87.45	87.45	255,318	255,318
Total	1,858.28	489.25	214.72	3,458,684	3,458,684

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.491086	0.041086	0.253609	0.146583	0.030190	0.006225	0.012264	0.007177	0.005044	0.001880	0.003892	0.000393	0.000572
Unrefrigerated Warehouse-No Rail	0.491086	0.041086	0.253609	0.146583	0.030190	0.006225	0.012264	0.007177	0.005044	0.001880	0.003892	0.000393	0.000572

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

20-124 Alexandria Existing Use - 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					
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	0.0192	0.1741	0.1462	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.4977	189.4977	3.6300e-003	3.4700e-003	190.6238
NaturalGas Unmitigated	0.0192	0.1741	0.1462	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.4977	189.4977	3.6300e-003	3.4700e-003	190.6238

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					
General Office Building	3.4817e+006	0.0188	0.1707	0.1434	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.7968	185.7968	3.5600e-003	3.4100e-003	186.9009
Unrefrigerated Warehouse-No	69353.3	3.7000e-004	3.4000e-003	2.8600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7010	3.7010	7.0000e-005	7.0000e-005	3.7230
Total		**0.0191**	**0.1741**	**0.1462**	**1.0400e-003**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**189.4977**	**189.4977**	**3.6300e-003**	**3.4800e-003**	**190.6238**

Mitigated

20-124 Alexandria Existing Use - San Mateo County, Annual

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	3.4817e+006	0.0188	0.1707	0.1434	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.7968	185.7968	3.5600e-003	3.4100e-003	186.9009
Unrefrigerated Warehouse-No	69353.3	3.7000e-004	3.4000e-003	2.8600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7010	3.7010	7.0000e-005	7.0000e-005	3.7230
Total		**0.0191**	**0.1741**	**0.1462**	**1.0400e-003**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**189.4977**	**189.4977**	**3.6300e-003**	**3.4800e-003**	**190.6238**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.18902e+006	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	188963	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

20-124 Alexandria Existing Use - San Mateo County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.18902e+006	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	188963	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	1.0276	2.0000e-005	2.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.1500e-003	4.1500e-003	1.0000e-005	0.0000	4.4200e-003
Unmitigated	1.0276	2.0000e-005	2.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.1500e-003	4.1500e-003	1.0000e-005	0.0000	4.4200e-003

6.2 Area by SubCategory

Unmitigated

20-124 Alexandria Existing Use - 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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9063					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.1500e-003	4.1500e-003	1.0000e-005	0.0000	4.4200e-003
Total	**1.0276**	**2.0000e-005**	**2.1400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.1500e-003**	**4.1500e-003**	**1.0000e-005**	**0.0000**	**4.4200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9063					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.1500e-003	4.1500e-003	1.0000e-005	0.0000	4.4200e-003
Total	**1.0276**	**2.0000e-005**	**2.1400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.1500e-003**	**4.1500e-003**	**1.0000e-005**	**0.0000**	**4.4200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

20-124 Alexandria Existing Use - San Mateo County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.9390	1.4317	0.0338	59.8045
Unmitigated	13.9390	1.4317	0.0338	59.8045

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	32.3138 / 19.8052	10.2517	1.0529	0.0249	43.9843
Unrefrigerated Warehouse-No Rail	11.6226 / 0	3.6873	0.3787	8.9400e-003	15.8203
Total		**13.9390**	**1.4317**	**0.0338**	**59.8045**

Mitigated

20-124 Alexandria Existing Use - San Mateo County, Annual

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

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	32.3138 / 19.8052	10.2517	1.0529	0.0249	43.9843
Unrefrigerated Warehouse-No Rail	11.6226 / 0	3.6873	0.3787	8.9400e-003	15.8203
Total		**13.9390**	**1.4317**	**0.0338**	**59.8045**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	43.9110	2.5951	0.0000	108.7877
Unmitigated	43.9110	2.5951	0.0000	108.7877

8.2 Waste by Land Use

Unmitigated

20-124 Alexandria Existing Use - San Mateo County, Annual

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	169.08	34.3217	2.0284	0.0000	85.0306
Unrefrigerated Warehouse-No Rail	47.24	9.5893	0.5667	0.0000	23.7571
Total		**43.9110**	**2.5951**	**0.0000**	**108.7877**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	169.08	34.3217	2.0284	0.0000	85.0306
Unrefrigerated Warehouse-No Rail	47.24	9.5893	0.5667	0.0000	23.7571
Total		**43.9110**	**2.5951**	**0.0000**	**108.7877**

9.0 Operational Offroad

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

20-124 Alexandria Existing Use - San Mateo County, Annual

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

ROG Adjustment for 2030
San Mateo County

	Population (All)	Population (EV)	Default % EV	ACC Phase II % Requirements	Adjusted EV
1986	375.9670871	0	0%		0
1987	385.2642781	0	0%		0
1988	381.6870038	0	0%		0
1989	445.856916	0.343745449	0%		0.343745
1990	506.6621739	0	0%		0
1991	584.9058767	0	0%		0
1992	492.7731392	0	0%		0
1993	570.0328369	0	0%		0
1994	644.7983649	0	0%		0
1995	807.3606587	0.173525425	0%		0.173525
1996	812.9958046	0	0%		0
1997	1109.027691	0	0%		0
1998	1254.859007	0	0%		0
1999	1625.539426	0.662206585	0%		0.662207
2000	2013.473411	0.334675463	0%		0.334675
2001	2278.936771	0.174537378	0%		0.174537
2002	2426.292205	0.162815284	0%		0.162815
2003	2612.500905	0	0%		0
2004	2955.619847	0	0%		0
2005	3259.698593	0	0%		0
2006	3918.165719	0	0%		0
2007	4357.357654	0	0%		0
2008	4397.009156	4.828757874	0%		4.828758
2009	3373.685934	0.376532496	0%		0.376532
2010	4597.665514	3.199373064	0%		3.199373
2011	5748.865495	39.29023546	1%		39.29024
2012	8018.491048	59.53091812	1%		59.53092
2013	10891.47627	198.2361973	2%		198.2362
2014	12228.80533	240.14518	2%		240.1452
2015	16376.43031	325.982431	2%		325.9824
2016	18547.75673	634.2501735	3%		634.2502
2017	25771.36083	1035.326447	4%		1035.326
2018	31062.72536	1789.684614	6%		1789.685
2019	32126.75028	884.1647422	3%		884.1647
2020	28103.27866	905.2607805	3%		905.2608
2021	34816.93108	1415.886629	4%		1415.887
2022	41507.90543	2056.53229	5%		2056.532
2023	43029.67577	2354.961967	5%		2354.962
2024	44002.24663	2712.572105	6%		2712.572
2025	45384.74014	2984.236376	7%		2984.236
2026	46186.11352	2853.594867	6%	0.35	2853.595
2027	46635.25342	3129.098648	7%	0.43	3129.099
2028	47898.19438	3534.603377	7%	0.51	24428.08
2029	54116.06693	4484.444294	8%	0.59	31928.48
2030	57195.4415	5258.42374	9%	0.68	38892.9
Sum	695,837	36,906			118,878

1 Calculate default EV percentage
2 Adjust for ACC Phase II requirements
3 Compute % difference
4 Compute fraction of LDA, LDT1 and LDT2 emissions
5 Apply EV % difference to % of LDA, LDT1, LDT2 emissions

ACC Phase II % Requirements	
2026	0.35
2027	0.43
2028	0.51
2029	0.59
2030	0.68
2031	0.7

5% Default ZEV %
17% ACC Phase II %
12% Difference
13% Greater EV Penetration

The increase EV% from 8% to 23% means decrease gasoline and diesel vehicles from 95% to 83%
= 100% - 0.83/0.95 = 13%

EMFAC2021 Emissions			
CO2 LD% of total	59%	LD CO2 Adjustment	7%
ROG LD% of total	63%	LD ROG Adjustment	8%
Nox LD% of total	39%	LD Nox Adjustment	5%

EV Reduction applied to total emissions that include trucks and other non-LD vehicles

San Mateo County
Consumer ROG Factor

Year	Emission Inventory SC County Emissions	County Population	County Building Square footage	ROG Consumer Factor
2010	4.47 tpd	718,451	537,446,060 sf	1.66E-05 lbs/ft/day
2020	5.29 tpd	764,442	571,850,190 sf	1.85E-05 lbs/ft/day
2030	5.84 tpd	800,006	598,454,275 sf	1.95E-05 lbs/ft/day

Emission Inventory:	CARB 2023.	CEPAM2019v1.03 Emission Projection Data
	see	Emissions for User Defined Query | California Air Resources Board
Population:	CA DOF	January Population and Housing Estimates
	see	Estimates | Department of Finance (ca.gov)
Building Square footage	FEMA	HAZUS-MH software (provides 2010 inventory).

Attachment 3: EMFAC2021 Calculations

Summary of Construction Traffic Emissions (EMFAC2021)

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														
2021	0.0636	0.6358	0.8107	0.0038	0.1632	0.0296	0.1928	0.0245	0.0131	0.0376	372.2791	0.0373	0.0433	386.1141
2022	0.2347	2.3747	3.0817	0.0154	0.6691	0.1165	0.7856	0.1007	0.0492	0.1499	1504.0375	0.1484	0.1744	1559.7152
2023	0.2257	2.1328	3.0650	0.0158	0.7140	0.1187	0.8327	0.1074	0.0493	0.1567	1548.4696	0.1476	0.1766	1604.7819
Toxic Air Contaminants (1.0 Mile Trip Length)														
2021	0.0478	0.1492	0.2691	0.0005	0.0157	0.0030	0.0187	0.0024	0.0014	0.0038	46.5939	0.0083	0.0066	48.7530
2022	0.1817	0.5862	1.0358	0.0019	0.0642	0.0118	0.0760	0.0097	0.0053	0.0150	188.5951	0.0329	0.0263	197.2682
2023	0.1818	0.5872	1.0575	0.0020	0.0693	0.0123	0.0816	0.0104	0.0054	0.0159	198.8393	0.0345	0.0276	207.9126

Summary of Construction Traffic Emissions (EMFAC2021)

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														
2024	0.1477	1.6347	2.1372	0.0120	0.5151	0.0929	0.6081	0.0775	0.0384	0.1159	1182.7235	0.1163	0.1405	1227.4961
2025	0.1277	1.4573	1.9323	0.0114	0.5137	0.0912	0.6050	0.0773	0.0370	0.1143	1130.8977	0.1046	0.1338	1173.3906
2026	0.0742	0.8464	1.1223	0.0066	0.2984	0.0530	0.3514	0.0449	0.0215	0.0664	656.8502	0.0608	0.0777	681.5310
Toxic Air Contaminants (1.0 Mile Trip Length)														
2024	0.1180	0.4450	0.7219	0.0015	0.0495	0.0093	0.0588	0.0075	0.0040	0.0115	148.2204	0.0252	0.0207	155.0146
2025	0.1038	0.4180	0.6548	0.0014	0.0494	0.0090	0.0584	0.0074	0.0038	0.0113	141.9743	0.0229	0.0197	148.4114
2026	0.0603	0.2428	0.3803	0.0008	0.0287	0.0052	0.0339	0.0043	0.0022	0.0065	82.4618	0.0133	0.0114	86.2006

Summary of Construction Traffic Emissions (EMFAC2021)

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														
2026	0.0391	0.5156	0.6307	0.0038	0.1612	0.0318	0.1930	0.0243	0.0130	0.0372	383.7932	0.0383	0.0476	398.9381
2027	0.0912	1.2103	1.4988	0.0093	0.3992	0.0783	0.4775	0.0601	0.0317	0.0917	928.6125	0.0897	0.1150	965.1152
2028 + 2029	0.0779	1.0323	1.2995	0.0081	0.3598	0.0701	0.4299	0.0541	0.0282	0.0823	815.8145	0.0761	0.1007	847.7373
Toxic Air Contaminants (1.0 Mile Trip Length)														
2026	0.0311	0.1357	0.2023	0.0004	0.0150	0.0029	0.0178	0.0023	0.0012	0.0035	44.8334	0.0074	0.0063	46.8943
2027	0.0734	0.3263	0.4814	0.0011	0.0370	0.0070	0.0441	0.0056	0.0030	0.0085	108.6027	0.0175	0.0152	113.5737
2028 + 2029	0.0632	0.2847	0.4179	0.0009	0.0334	0.0063	0.0397	0.0050	0.0026	0.0076	95.5341	0.0150	0.0134	99.8887

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*
Site Utilities	8	0	1360	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	14688	0	0
Grade Side	25	0	2125	0	15948	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22950	0	318960
Drill Displacement Piles	13	0	1560	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	16848	0	0
Dewatering	3	0	12	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	129.6	0	0
Shoring and Excavation	10	0	350	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3780	0	0
Concrete/Rebar/Waterproofing	431	190	25860	11400	9531	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	279288	83220	190620
Structural Steel	431	190	58185	25650	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	628398	187245	0
Concrete Decks	431	190	53875	23750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	581850	173375	0
Fireproofing	431	190	53875	23750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	581850	173375	0
Exterior Skin	86	0	14190	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	153252	0	0
Landscaping and Hardscape	13	0	2080	0	151	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22464	0	3020
MEP	431	190	10775	4750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	116370	34675	0
Roofing	431	190	21550	9500	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	232740	69350	0
Framing/Drywall	431	190	10775	4750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	116370	34675	0
Elevators	431	190	21550	9500	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	232740	69350	0
Other Interior Finishes	86	0	4300	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	46440	0	0
Startup & Commissioning	3	0	30	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	324	0	0

Number of Days Per Year					
2021	2021/10/04	12/31/21	89	64	
2022	1/1/22	12/31/22	365	261	
2023	1/1/23	2023/12/01	335	240	
			789	**565**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Site Utilities	2021/10/04	2022/05/27	5	170
Grade Side	2021/10/04	2022/01/28	5	85
Drill Displacement Piles	2021/12/06	2022/05/20	5	120
Dewatering	2022/02/07	2022/02/10	5	4
Shoring and Excavation	2022/02/07	2022/03/25	5	35
Concrete/Rebar/Waterproofing	2022/04/04	2022/06/24	5	60
Structural Steel	2022/06/13	2022/12/16	5	135
Concrete Decks	2022/10/17	2023/04/07	5	125
Fireproofing	2023/01/16	2023/07/07	5	125
Exterior Skin	2023/02/06	2023/09/22	5	165
Landscaping and Hardscape	2023/04/24	2023/12/01	5	160
MEP	2023/05/01	2023/06/02	5	25
Roofing	2023/05/08	2023/07/14	5	50
Framing/Drywall	2023/06/12	2023/07/14	5	25
Elevators	2023/06/19	2023/08/25	5	50
Other Interior Finishes	2023/06/26	2023/09/01	5	50
Startup & Commissioning	2023/10/23	2023/11/03	5	10

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*
Abatement	5	0	300	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	0
Demolition	33	0	1650	0	474	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	17820	0	9480
Site Utilities	8	0	1360	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	14688	0	0
Grade Side	25	0	2125	0	15948	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22950	0	318960
Drill Displacement Piles	13	0	1560	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	16848	0	0
Dewatering	3	0	12	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	129.6	0	0
Shoring and Excavation	10	0	350	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3780	0	0
Concrete/Rebar/Waterproofing	374	190	22440	11400	9531	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	242352	83220	190620
Structural Steel	374	190	50490	25650	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	545292	187245	0
Concrete Decks	374	190	46750	23750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	504900	173375	0
Fireproofing	374	190	46750	23750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	504900	173375	0
Exterior Skin	75	0	12375	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	133650	0	0
Landscaping and Hardscape	13	0	2080	0	151	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22464	0	3020
MEP	374	190	9350	4750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	100980	34675	0
Roofing	374	190	18700	9500	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	201960	69350	0
Framing/Drywall	374	190	9350	4750	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	100980	34675	0
Elevators	374	190	18700	9500	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	201960	69350	0
Other Interior Finishes	75	0	3750	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	40500	0	0
Startup & Commissioning	3	0	30	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	324	0	0

Number of Days Per Year					
2024	2024/01/01	12/31/24	366	262	
2025	1/1/25	12/31/25	365	261	
2026	1/1/26	2026/07/31	212	152	
			943	**675**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Abatement	2024/01/01	2024/03/22	5	60
Demolition	2024/03/23	2024/05/31	5	50
Site Utilities	2024/06/01	2025/01/24	5	170
Grade Side	2024/06/01	2024/09/27	5	85
Drill Displacement Piles	2024/08/13	2025/01/27	5	120
Dewatering	2024/10/05	2024/10/10	5	4
Shoring and Excavation	2024/10/05	2024/11/22	5	35
Concrete/Rebar/Waterproofing	2024/11/30	2025/02/21	5	60
Structural Steel	2025/02/08	2025/08/15	5	135
Concrete Decks	2025/06/14	2025/12/05	5	125
Fireproofing	2025/09/13	2026/03/06	5	125
Exterior Skin	2025/10/04	2026/05/22	5	165
Landscaping and Hardscape	2025/12/20	2026/07/31	5	160
MEP	2025/12/27	2026/01/30	5	25
Roofing	2026/01/03	2026/03/13	5	50
Framing/Drywall	2026/02/07	2026/03/13	5	25
Elevators	2026/02/14	2026/04/24	5	50
Other Interior Finishes	2026/02/21	2026/05/01	5	50
Startup & Commissioning	2026/06/20	2026/07/03	5	10

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*
Abatement	5	0	300	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	0
Demolition	33	0	1650	0	1526	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	17820	0	30520
Site Utilities	8	0	1360	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	14688	0	0
Grade Side	25	0	2125	0	15948	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22950	0	318960
Drill Displacement Piles	13	0	1560	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	16848	0	0
Dewatering	3	0	12	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	129.6	0	0
Shoring and Excavation	10	0	350	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3780	0	0
Concrete/Rebar/Waterproofing	206	103	12360	6180	5062	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	133488	45114	101240
Structural Steel	206	103	27810	13905	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	300348	101506.5	0
Concrete Decks	206	103	25750	12875	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	278100	93987.5	0
Fireproofing	206	103	25750	12875	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	278100	93987.5	0
Exterior Skin	41	0	6765	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	73062	0	0
Landscaping and Hardscape	13	0	2080	0	144	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22464	0	2880
MEP	206	103	5150	2575	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	55620	18797.5	0
Roofing	206	103	10300	5150	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	111240	37595	0
Framing/Drywall	206	103	5150	2575	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	55620	18797.5	0
Elevators	206	103	10300	5150	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	111240	37595	0
Other Interior Finishes	41	0	2050	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22140	0	0
Startup & Commissioning	3	0	30	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	324	0	0

Number of Days Per Year					
2026	2026/08/01	12/31/26	153	109	
2027	1/1/27	12/31/27	365	261	
2028 + 2029	1/1/28	2/28/29	425	304	
			943	**675**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Abatement	2026/08/01	2026/10/23	5	60
Demolition	2026/10/22	2026/12/30	5	50
Site Utilities	2026/12/31	2027/08/25	5	170
Grade Side	2026/12/31	2027/04/28	5	85
Drill Displacement Piles	2027/03/14	2027/08/27	5	120
Dewatering	2027/05/06	2027/05/11	5	4
Shoring and Excavation	2027/05/06	2027/06/23	5	35
Concrete/Rebar/Waterproofing	2027/07/01	2027/09/22	5	60
Structural Steel	2027/09/09	2028/03/15	5	135
Concrete Decks	2028/01/13	2028/07/05	5	125
Fireproofing	2028/04/13	2028/10/04	5	125
Exterior Skin	2028/05/04	2028/12/20	5	165
Landscaping and Hardscape	7/20/2028	2/28/2029	5	160
MEP	2028/07/27	2028/08/30	5	25
Roofing	2028/08/31	2028/11/08	5	50
Framing/Drywall	2028/09/07	2028/10/11	5	25
Elevators	2028/09/14	2028/11/22	5	50
Other Interior Finishes	2028/09/21	2028/11/29	5	50
Startup & Commissioning	1/18/2029	1/31/2029	5	10

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Mateo
Calendar Year: 2021
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	2021	HHDT	Aggregate	Aggregate	Gasoline	4.207884	613.6717	613.6717	0	84.19134	4.436662	0	0.002433	0.00151	0	0.001045	0.005	0.031406	0.001642	0	0.001136	0.02	0.089731	2299.013	0	56.98497	0.124645	0	0.000103	0.155124	0	0.000117	0.658515	0	0.000561	0.054829	0.464688	3.997452	0.960904	0	0.000614	0.054829	0.464688	3.997452	0.045	34.33135	0	7.020294	0.022728	0	0.000563
San Mateo	2021	HHDT	Aggregate	Aggregate	Diesel	1273.437	118103.1	1181033.1	0	13607.24	3.732924	50.88695	2.381917	0.034114	0.056651	0	0.008612	0.031969	0.035657	0.059213	0	0.034446	0.091341	1890.966	8489.419	0	0.002556	0.153718	0	0.297923	1.337511	0	0.055037	3.309512	0	0	0	0	0.062655	3.767628	0	0	0	0	0.179969	0.210491	41.80389	0	0.017906	0.08039	0
San Mateo	2021	HHDT	Aggregate	Aggregate	Natural Ga	133.5359	9165.577	9165.577	0	873.9044	2.035351	10.72714	0	0.002215	0.01069	0	0.009	0.058752	0.002409	0.011627	0	0.036	0.167862	1586.708	8367.673	0	3.952499	26.44215	0	0.323461	1.705805	0	0.097313	0.453154	0	0	0	0	4.080345	27.072	0	0	0	0	0.736301	19.17523	69.04387	0	0	0	0
San Mateo	2021	LDA	Aggregate	Aggregate	Gasoline	239608.2	8252409	8252409	0	1125641	0.054518	0	0.292828	0.001305	0	0.002208	0.002	0.002348	0.001419	0	0.002401	0.008	0.006708	287.6533	0	73.81832	0.002897	0	0.08293	0.005317	0	0.034758	0.011736	0	0.398765	0.095248	0.240405	1.415863	0.017121	0	0.436594	0.095248	0.240405	1.415863	0.033699	0.785925	0	3.878914	0.002844	0	0.00073
San Mateo	2021	LDA	Aggregate	Aggregate	Diesel	941.4148	25369.15	25369.15	0	4047.449	0.268604	0	0	0.017514	0	0	0.002	0.002383	0.018305	0	0	0.008	0.006809	238.5185	0	0	0.001377	0	0	0.037579	0	0	0.029642	0	0	0	0	0	0.033746	0	0	0	0	0	0.0031	0.34418	0	0	0.00226	0	0
San Mateo	2021	LDA	Aggregate	Aggregate	Electricity	12690.09	499254.3	0	499254.3	63693.55	0	0	0	0	0	0	0.002	0.001528	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	2021	LDA	Aggregate	Aggregate	Plug-in Hyb	5477.722	227736.6	120267.2	107469.3	22650.38	0.003393	0	0.117199	0.000739	0	0.00234	0.002	0.001303	0.000804	0	0.002545	0.008	0.003724	142.4642	0	67.44209	0.000448	0	0.04321	0.00061	0	0.021046	0.001426	0	0.176635	0.036516	0.03268	0.414855	0.002081	0	0.193393	0.036516	0.03268	0.414855	0.020363	0.212593	0	1.37819	0.001408	0	0.000667
San Mateo	2021	LDT1	Aggregate	Aggregate	Gasoline	23746.16	742816.9	742816.9	0	107382	0.156937	0	0.429531	0.001957	0	0.003025	0.002	0.002849	0.002128	0	0.003289	0.008	0.008141	337.9933	0	90.51889	0.007332	0	0.119765	0.010787	0	0.040634	0.033288	0	0.633942	0.172041	0.497994	2.636101	0.048525	0	0.692987	0.172041	0.497994	2.636101	0.035966	1.547036	0	6.236896	0.003341	0	0.000895
San Mateo	2021	LDT1	Aggregate	Aggregate	Diesel	9.390574	139.7116	139.7116	0	28.19453	1.703109	0	0	0.243327	0	0	0.002	0.003347	0.254329	0	0	0.008	0.009563	418.7202	0	0	0.015006	0	0	0.06597	0	0	0.323065	0	0	0	0	0	0.367789	0	0	0	0	0	0.0031	1.724838	0	0	0.003968	0	0
San Mateo	2021	LDT1	Aggregate	Aggregate	Electricity	53.93838	1739.936	0	1739.936	254.3673	0	0	0	0	0	0	0.002	0.00154	0	0	0	0.008	0.0044	0	0	0	0	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	2021	LDT1	Aggregate	Aggregate	Plug-in Hyb	8.529428	391.5695	199.1601	192.4094	35.26919	0.003268	0	0.117199	0.000485	0	0.001617	0.002	0.001308	0.000528	0	0.001758	0.008	0.003736	137.2097	0	74.69433	0.000435	0	0.043548	0.000596	0	0.021361	0.001373	0	0.176635	0.026524	0.025627	0.322023	0.002004	0	0.193393	0.026524	0.025627	0.322023	0.021362	0.204752	0	1.37819	0.001356	0	0.000738
San Mateo	2021	LDT2	Aggregate	Aggregate	Gasoline	118246.2	4244631	4244631	0	565277	0.07403	0	0.360529	0.001355	0	0.002139	0.002	0.002723	0.001474	0	0.002327	0.008	0.007781	354.1476	0	90.81599	0.002884	0	0.088065	0.006068	0	0.038667	0.011902	0	0.414494	0.073887	0.184866	1.141401	0.017361	0	0.453818	0.073887	0.184866	1.141401	0.035788	0.817327	0	4.018536	0.003501	0	0.000898
San Mateo	2021	LDT2	Aggregate	Aggregate	Diesel	453.4927	16522.16	16522.16	0	2190.085	0.053149	0	0	0.00549	0	0	0.002	0.002739	0.005738	0	0	0.008	0.007827	325.4957	0	0	0.000647	0	0	0.051282	0	0	0.013925	0	0	0	0	0	0.015853	0	0	0	0	0	0.0031	0.128498	0	0	0.003084	0	0
San Mateo	2021	LDT2	Aggregate	Aggregate	Electricity	200.2644	6866.192	0	6866.192	1033.913	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
San Mateo	2021	LDT2	Aggregate	Aggregate	Plug-in Hyb	607.4894	27118.23	13380	13738.23	2511.969	0.003212	0	0.117199	0.000636	0	0.002095	0.002	0.001306	0.000692	0	0.002278	0.008	0.003731	139.0711	0	80.82649	0.00044	0	0.04347	0.000602	0	0.021268	0.001392	0	0.176635	0.027382	0.026654	0.339534	0.002031	0	0.193393	0.027382	0.026654	0.339534	0.021601	0.20753	0	1.37819	0.001375	0	0.000799
San Mateo	2021	LHDT1	Aggregate	Aggregate	Gasoline	9465.666	366040.8	366040.8	0	141024.3	0.175099	0.038183	0.660195	0.001543	0	0.000311	0.002	0.0273	0.001678	0	0.000338	0.008	0.078	895.4226	120.6599	27.34028	0.008539	0.119408	0.034629	0.009899	0.003154	0.053741	0.042189	0.437509	0.17117	0.043552	0.228457	2.295822	0.061162	0.638412	0.18741	0.043552	0.228457	2.295822	0.044911	1.149099	3.755042	3.242689	0.008852	0.001193	0.00027
San Mateo	2021	LHDT1	Aggregate	Aggregate	Diesel	3684.573	145257.9	145257.9	0	46347.29	1.900842	2.133301	0	0.037633	0.027441	0	0.003	0.0273	0.039335	0.028681	0	0.012	0.078	643.9501	134.6082	0	0.008594	0.005098	0	0.101455	0.021208	0	0.185022	0.10976	0	0	0	0	0.210635	0.124954	0	0	0	0	0.162462	0.51711	0.909745	0	0.006102	0.001275	0
San Mateo	2021	LHDT2	Aggregate	Aggregate	Gasoline	1104.281	40124.64	40124.64	0	16452.14	0.207499	0.038307	0.671369	0.001529	0	0.000291	0.002	0.03185	0.001663	0	0.000317	0.008	0.091	1012.936	140.1336	26.15001	0.008477	0.118632	0.034903	0.011887	0.003051	0.052463	0.040419	0.438889	0.174317	0.046805	0.24588	2.454022	0.058979	0.640425	0.190855	0.046805	0.24588	2.454022	0.04498	1.086425	3.753049	3.236205	0.010014	0.001385	0.000259
San Mateo	2021	LHDT2	Aggregate	Aggregate	Diesel	1489.162	61322	61322	0	18731.79	1.323967	2.048244	0	0.030721	0.02709	0	0.003	0.03185	0.03211	0.028315	0	0.012	0.091	773.4515	213.3629	0	0.007333	0.005098	0	0.121858	0.033615	0	0.15788	0.10976	0	0	0	0	0.179736	0.124954	0	0	0	0	0.181404	0.394641	0.909745	0	0.007329	0.002022	0
San Mateo	2021	MCY	Aggregate	Aggregate	Gasoline	11015.35	65449.33	65449.33	0	22030.7	0.602847	0	0.161379	0.001867	0	0.003963	0.001	0.0042	0.00199	0	0.004197	0.004	0.012	190.3318	0	52.57067	0.172019	0	0.203177	0.040616	0	0.009344	1.160868	0	1.533066	3.562522	3.722831	3.741902	1.376332	0	1.665976	3.562522	3.722831	3.741902	0.008666	13.47981	0	8.146331	0.001882	0	0.00052
San Mateo	2021	MDV	Aggregate	Aggregate	Gasoline	66318.47	2405181	2405181	0	314766.8	0.101858	0	0.460744	0.001407	0	0.002373	0.002	0.002746	0.00153	0	0.002579	0.008	0.007846	426.3392	0	110.0314	0.003988	0	0.108875	0.007424	0	0.042593	0.017704	0	0.555537	0.086655	0.224873	1.34676	0.025272	0	0.608201	0.086655	0.224873	1.34676	0.036261	0.947138	0	4.455863	0.004215	0	0.001088
San Mateo	2021	MDV	Aggregate	Aggregate	Diesel	985.8693	37047.2	37047.2	0	4753.762	0.054334	0	0	0.005284	0	0	0.002	0.002765	0.005523	0	0	0.008	0.0079	421.7083	0	0	0.000527	0	0	0.06644	0	0	0.011355	0	0	0	0	0	0.012927	0	0	0	0	0	0.0031	0.187034	0	0	0.003996	0	0
San Mateo	2021	MDV	Aggregate	Aggregate	Electricity	201.8281	6938.265	0	6938.265	1042.96	0	0	0	0	0	0	0.002	0.001522	0	0	0	0.008	0.004349	0	0	0	0	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	2021	MDV	Aggregate	Aggregate	Plug-in Hyb	371.3535	16452.34	8679.304	7773.039	1535.547	0.003389	0	0.117199	0.000799	0	0.00257	0.002	0.001303	0.000869	0	0.002795	0.008	0.003723	142.3143	0	100.8015	0.000451	0	0.04355	0.000618	0	0.021362	0.001424	0	0.176635	0.029305	0.029447	0.373112	0.002079	0	0.193393	0.029305	0.029447	0.373112	0.022157	0.212369	0	1.37819	0.001407	0	0.000997
San Mateo	2021	MH	Aggregate	Aggregate	Gasoline	734.4589	6617.11	6617.11	0	73.47527	0.5984	0	0.398132	0.00209	0	0.00052	0.003	0.015756	0.002273	0	0.000566	0.012	0.045017	1949.847	0	32.64705	0.023832	0	0.039829	0.032885	0	0.039202	0.11195	0	0.179043	15.58778	0.343278	4.94049	0.163357	0	0.19603	15.58778	0.343278	4.94049	0.044512	3.041967	0	4.083113	0.019276	0	0.000323
San Mateo	2021	MH	Aggregate	Aggregate	Diesel	272.6828	2996.165	2996.165	0	27.26828	3.626767	0	0	0.072841	0	0	0.004	0.015675	0.076134	0	0	0.016	0.044785	1084.02	0	0	0.004851	0	0	0.170788	0	0	0.104436	0	0	0	0	0	0.118893	0	0	0	0	0	0.171474	0.338798	0	0	0.010272	0	0
San Mateo	2021	MHDT	Aggregate	Aggregate	Gasoline	736.1951	43052.67	43052.67	0	14729.79	0.762626	0.08798	0.478052	0.001458	0	0.000611	0.003	0.015756	0.001586	0	0.000664	0.012	0.045017	1833.11	544.9734	49.02223	0.024955	0.251935	0.053913	0.034256	0.006809	0.033428	0.126007	1.005161	0.307993	0.042769	0.351531	3.242642	0.18387	1.466728	0.337214	0.042769	0.351531	3.242642	0.044931	2.697786	15.02882	6.878054	0.018122	0.005388	0.000485
San Mateo	2021	MHDT	Aggregate	Aggregate	Diesel	4141.708	172846.2	172846.2	0	49761.7	2.061376	16.85175	1.389748	0.028066	0.057168	0	0.003	0.015983	0.029336	0.059753	0	0.012	0.045667	1166.851	2344.125	0	0.003316	0.015073	0	0.183838	0.369318	0	0.071387	0.324519	0	0	0	0	0.081269	0.36944	0	0	0	0	0.188868	0.217999	7.271265	0	0.011049	0.022197	0
San Mateo	2021	MHDT	Aggregate	Aggregate	Natural Ga	37.76408	1750.732	1750.732	0	354.0447	0.158767	6.530997	0	0.001075	0.016613	0	0.003	0.016066	0.001169	0.018068	0	0.012	0.045902	1020.474	5326.051	0	0.742537	17.98079	0	0.20803	1.08575	0	0.010609	0.25691	0	0	0	0	0.757813	18.35071	0	0	0	0	1.06	3.037411	31.34428	0	0	0	0
San Mateo	2021	OBUS	Aggregate	Aggregate	Gasoline	256.9666	16707.17	16707.17	0	5141.389	0.373654	0.065015	0.37666	0.000938	0	0.000281	0.003	0.01568	0.001021	0	0.000305	0.012	0.044799	1784.073	379.6296	30.93581	0.011579	0.205999	0.034447	0.020035	0.00587	0.032388	0.055193	0.745564	0.170152	0.028049	0.112606	1.875331	0.080537	1.087925	0.186295	0.028049	0.112606	1.875331	0.044902	1.215964	5.77041	3.608331	0.017637	0.003753	0.000306
San Mateo	2021	OBUS	Aggregate	Aggregate	Diesel	1012.18	73932.61	73932.61	0	9922.773	1.127243	6.905003	1.405933	0.012847	0.007714	0	0.003	0.017453	0.013428	0.008062	0	0.012	0.049866	1257.718	1281.171	0	0.001607	0.015226	0	0.198154	0.201849	0	0.034602	0.32782	0	0	0	0	0.039391	0.373198	0	0	0	0	0.208382	0.130785	5.40796	0	0.01191	0.012132	0
San Mateo	2021	OBUS	Aggregate	Aggregate	Natural Ga	12.06509	677.5634	677.5634	0	107.3793	0.300132	1.583247	0	0.000535	0.002806	0	0.003	0.016148	0.000582	0.003052	0	0.012	0.046137	1072.675	1201.166	0	0.729496	4.80278	0	0.218672	0.244866	0	0.010423	0.068622	0	0	0	0	0.744504	4.901589	0	0	0	0	1.06	3.091866	4.888161	0	0	0	0
San Mateo	2021	SBUS	Aggregate	Aggregate	Gasoline	53.02754	3121.684	3121.684	0	212.1101	1.105382	0.918968	0.672387	0.00147	0	0.000851	0.002	0.015721	0.001599	0	0.000926	0.008	0.044917	820.2494	2604.58	65.13436	0.029084	2.422852	0.095281	0.050551	0.079607	0.055586	0.142181	10.52875	0.55607	0.178745	0.520783	2.507294	0.20747	15.36352	0.608826	0.178745	0.520783	2.507294	0.045	3.65844	81.56099	14.32424	0.008109	0.025749	0.000644
San Mateo	2021	SBUS	Aggregate	Aggregate	Diesel	167.3159	3804.36	3804.36	0	2422.734	5.578284	25.06502	0.395913	0.026869	0.029887	0	0.003	0.015721	0.028084	0.031238	0	0.012	0.044917	1160.233	2266.201	0	0.003443	0.00854	0	0.182795	0.357041	0	0.074135	0.183857	0	0	0	0	0.084397	0.209307	0	0	0	0	0.124013	0.219058	4.051694	0	0.010987	0.02146	0
San Mateo	2021	SBUS	Aggregate	Aggregate	Natural Ga	5.492486	142.5665	142.5665	0	79.53119	0.6038	5.293683	0	0.003378	0.010814	0	0.003	0.015721	0.003674	0.011761	0	0.012	0.044917	1282.048	4061.559	0	3.539549	15.53801	0	0.261354	0.827975	0	0.050573	0.222007	0	0	0	0	3.612369	15.85768	0	0	0	0	1.06	12.13313	19.52139	0	0	0	0
San Mateo	2021	UBUS	Aggregate	Aggregate	Gasoline	60.9	4141.008	4141.008	0	243.6	0.053246	0	0.611285	0.000807	0	9.36E-05	0.002073	0.032333	0.000878	0	0.000102	0.00829	0.092379	1043.987	0	41.65834	0.002446	0	0.057417	0.006165	0	0.079866	0.007257	0	0.222402	0.063049	0.098995	0.630602	0.010589	0	0.243502	0.063049	0.098995	0.630602	0.045	0.563718	0	5.925928	0.010321	0	0.000412
San Mateo	2021	UBUS	Aggregate	Aggregate	Diesel	340.2487	28415.12	28415.12	0	1360.995	2.908766	0	0	0.007624	0	0	0.007913	0.0385	0.007968	0	0	0.031651	0.11	1452.708	0	0	0.007329	0	0	0.228875	0	0	0.157795	0	0	0	0	0	0.179638	0	0	0	0	0	0.122214	0.193508	0	0	0.013765	0	0
San Mateo	2021	UBUS	Aggregate	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
San Mateo	2021	UBUS	Aggregate	Aggregate	Natural Ga	34.29764	1148.902	1148.902	0	137.1906	0.063687	0	0	0.000297	0	0	0.008826	0.0385	0.00031	0	0	0.035305	0.11	1352.448	0	0	4.458048	0	0	0.275705	0	0	0.063697	0	0	0	0	0	4.549765	0	0	0	0	0	0.97	52.75007	0	0	0	0	0

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	PM2.5_PM	PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNEX	N2O_IDLEX	N2O_STRE	ROG_RUNE	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNE	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	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	0.034444	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	0.186789	0.159005	43.82276	0	0.017695	0.080704	0
San Mateo	2022	HHDT	Aggregate	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	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	0.003	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	0.0031	0.330004	0	0	0.002243	0	0
San Mateo	2022	LDA	Aggregate	Aggregate	Electricity	14391.4	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 HyE	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	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 HyE	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	0.035476	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	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 HyE	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	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	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	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	0.0031	0.180998	0	0	0.003942	0	0
San Mateo	2022	MDV	Aggregate	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 HyE	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	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	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	0.193605	0.190383	7.265304	0	0.01102	0.022042	0
San Mateo	2022	MHDT	Aggregate	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	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	0.049248	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	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	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	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	0.128799	0.214547	4.164591	0	0.010939	0.021372	0
San Mateo	2022	SBUS	Aggregate	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	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	0.003073	0.032333	0.001005	0	0.000111	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	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	0.12243	0.193248	0	0	0.013759	0	0
San Mateo	2022	UBUS	Aggregate	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	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	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_RU	PM2.5_IDL	PM2.5_STR	PM2.5_DP	PM10_RUI	PM10_IDL	PM10_STR	PM10_DP	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	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	0.045	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	0.000118	0.290487	1.306347	0	0.028463	3.363316	0	0	0	0	0.032403	3.828879	0	0	0	0	0.197741	0.123869	46.58006	0	0.017459	0.078517	0
San Mateo	2023	HHDT	Aggregate	Aggregate	Electricity	0.738781	40.81187	0	40.81187	9.636589	0	0	0	0	0	0	0.008666	0.01378	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
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	0.009	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	1.445109	26.1537	0	0	0	0	0.73711	17.41229	66.41256	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	0.0031	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
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	0.0031	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
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	0.0031	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
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	0.184546	0.371953	0.909745	0	0.005975	0.001223	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	0.196309	0.303972	0.909745	0	0.007088	0.001942	0
San Mateo	2023	MCY	Aggregate	Aggregate	Gasoline	12536.77	73820.04	73820.04	0	25073.54	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	0.0031	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
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	0.185977	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	0.206918	0.148734	7.579195	0	0.010946	0.021442	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
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	0.003	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	1.06	3.064735	35.81803	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	0.193123	0	0.020398	0.301313	0	0	0	0	0.023222	0.343022	0	0	0	0	0.217631	0.094166	5.629794	0	0.011845	0.011607	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	0.003	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	1.06	3.19115	6.306096	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	0.134019	0.208594	4.289616	0	0.010887	0.021276	0
San Mateo	2023	SBUS	Aggregate	Aggregate	Electricity	0.041475	0.481131	0	0.481131	0.600564	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
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	0.003	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	1.06	11.51682	21.10371	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	2854062	28540.62	0	1367.385	2.897593	0	0	0.007619	0	0	0.002	0.007913	0.0385	0.007964	0	0	0.033652	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	0.122644	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	0.009	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
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	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_PM	PM2.5_PM	PM10_RUI	PM10_IDL	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	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	0.845	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	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	0
San Mateo	2024	LDA	Aggregate	Aggregate	Gasoline	2394619.7	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	0.01145	0	0.339778	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	0.002	0.002404	0.013285	0	0	0.008	0.006869	232.7779	0	0	0.001054	0	0	0.033674	0	0	0.022696	0	0	0	0	0	0.025838	0	0	0	0	0	0.0031	0.304144	0	0	0.002206	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	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	114230.1	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	0.0031	1.668132	0	0	0.003959	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	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	0.0031	0.119356	0	0	0.002928	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	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	0.019039	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	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	0.020587	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	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	0.010103	0	0	0	0	0	0.0031	0.171126	0	0	0.00383	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	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	0.198035	0.284597	0	0	0.010288	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	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	0.003433	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	0.00784	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	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	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	0.003145	0	0	0.192799	0	0	0.067719	0	0	0	0	0.077093	0	0	0	0	0	0.22	0.077195	0	0	0.011595	0	0
San Mateo	2024	UBUS	Aggregate	Aggregate	Electricity	37.0794	3851.303	0	3851.303	148.3176	0	0	0	0	0	0	0.003	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	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	0.97	46.50633	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_IDL	PM10_STR	PM10_PM	TOG_RUNEX	TOG_IDLEX	TOG_STREX	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	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	119591.7	119591.7	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	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	0.263084	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	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	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	0.000813	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	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	0	58794.02	10836.18	0	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	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	0.001342	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	18041.9	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	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	0.133884	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	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	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	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Natural Ga	48.05658	2179.843	2179.843	0	442.254	0.112977	6.480284	0	0.003127	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	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	0.002	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	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	0.002	0.008097	0.0385	0.007135	0	0	0.032386	0.11	1223.487	0	0	0.003145	0	0	0.192761	0	0	0.067715	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	0.002	0.007371	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	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	0.030972	0.11	1262.837	0	0	4.101249	0	0	0.257438	0	0	0.058599	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: 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_IDL	PM10_STR	PM10_PM	TOG_RUNEX	TOG_IDLEX	TOG_STREX	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	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	119591.7	119591.7	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	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	0.263084	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	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	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	0.000813	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	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	0	58794.02	10836.18	0	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	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	0.001342	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	18041.9	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	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	0.133884	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	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	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	0
San Mateo	2026	MHDT	Aggregate	Aggregate	Natural Ga	48.05658	2179.843	2179.843	0	442.254	0.112977	6.480284	0	0.003127	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	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	0.002	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	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	0.002	0.008097	0.0385	0.007135	0	0	0.032386	0.11	1223.487	0	0	0.003145	0	0	0.192761	0	0	0.067715	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	0.002	0.007371	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	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	0.030972	0.11	1262.837	0	0	4.101249	0	0	0.257438	0	0	0.058599	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	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSTOG_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	0.02163	0	0.000502
San Mateo	2027	HHDT	Aggregate	Aggregate	Diesel	1346.151	119374.9	119374.9	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	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
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	0	0.240759	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	0.208288	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	577.6306	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	0.019456	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	0.031456	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	0.271887	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	0.002352	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	0.013417	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	0.027798	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	0.008318	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	0.096455	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	177451.1	177451.1	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	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	0.022621	0	0.012	0.045965	986.2486	3381.374	0	0.780237	16.43266	0	0.201053	1.097028	0	0.011148	0.23479	0	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	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	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	79.49692	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	10.63321	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	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	0.003	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	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	0.002072	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	0.006826	0	0	0.008096	0.0385	0.007135	0	0	0.032385	0.11	1223.405	0	0	0.003145	0	0	0.192748	0	0	0.067714	0	0	0	0	0	0	0.077087	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	0.007377	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	0.030974	0.11	1262.884	0	0	4.101438	0	0	0.257447	0	0	0.058601	0	0	0	0	0	0	4.185818	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: 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_DIU	PM2.5_TIR	PM2.5_TOT	PM10_RUN	PM10_IDL	PM10_STR	PM10_DIU	PM10_TIR	PM10_TOT	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	0.033886	0.05039	0	0	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	6625086	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	0.003433	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	0.52715	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	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	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	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	0.020669	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	1.006887	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	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	0.17245	0	0	0.083504	0	0	0	0	0	0.095063	0	0	0	0	0	0.202899	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	6.387434	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	0.00784	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	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	0.002342	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	0.002072	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	0.008085	0.0385	0.007124	0	0	0.032342	0.11	1245.48	0	0	0.003141	0	0	0.196226	0	0	0.067634	0	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	0.007594	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	0.007781	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	0	4.198472	0	0	0	0	0	0.97	46.7387	0	0	0	0	0

CalEEMod EMFAC2021 Emission Factors Input

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

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.392953	0.03814	0.309697	0.182164	0.036329	0.008412	0.012807	0.007315	0.004719	0.001823	0.004493	0.000442	0.000706

Attachment 4: Project Construction Emissions and Health Risk Calculations

Alexandria District Life Science Phase 1, San Carlos, CA

DPM Emissions and Modeling Emission Rates - Unmitigated - Phase 1

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2021	Construction	0.0807	CON_DPM	161.4	0.04914	6.19E-03	41,171	1.50E-07
2022	Construction	0.2004	CON_DPM	400.7	0.12199	1.54E-02	41,171	3.73E-07
2023	Construction	0.0784	CON_DPM	156.9	0.04775	6.02E-03	41,171	1.46E-07
Total		***0.3595***		***719.0***	***0.2189***	***0.0276***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation - Phase 1

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2021	Construction	0.0075	CON_DPM	15.0	0.00458	5.77E-04	41,171	1.40E-08
2022	Construction	0.0451	CON_DPM	90.1	0.02744	3.46E-03	41,171	8.40E-08
2023	Construction	0.0335	CON_DPM	67.1	0.02041	2.57E-03	41,171	6.25E-08
Total		***0.0861***		***172.2***	***0.0524***	***0.0066***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science Phase 1, San Carlos, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated - Phase 1

Construction Year	Activity	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 $g/s/m^2$
2021	Construction	CON_FUG	0.1006	201.1	0.06122	7.71E-03	41,171	1.87E-07
2022	Construction	CON_FUG	0.0520	103.9	0.03164	3.99E-03	41,171	9.68E-08
2023	Construction	CON_FUG	0.0104	20.9	0.00635	8.00E-04	41,171	1.94E-08
Total			***0.1629***	***325.9***	***0.0992***	***0.0125***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation - Phase 1

Construction Year	Activity	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 $g/s/m^2$
2021	Construction	CON_FUG	0.0466	93.1	0.02834	3.57E-03	41,171	8.67E-08
2022	Construction	CON_FUG	0.0288	57.5	0.01751	2.21E-03	41,171	5.36E-08
2023	Construction	CON_FUG	0.0104	20.9	0.00635	8.00E-04	41,171	1.94E-08
Total			***0.0857***	***171.5***	***0.0522***	***0.0066***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science, San Carlos, CA - Phase 2

DPM Emissions and Modeling Emission Rates - Unmitigated - Phase 2

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2024	Construction	0.1347	CON_DPM	269.3	0.08199	1.03E-02	35,347	2.92E-07
2025	Construction	0.1191	CON_DPM	238.3	0.07253	9.14E-03	35,347	2.59E-07
2026	Construction	0.0328	CON_DPM	65.7	0.02000	2.52E-03	35,347	7.13E-08
Total		***0.2866***		***573.3***	***0.1745***	***0.0220***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation - Phase 2

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2024	Construction	0.0251	CON_DPM	50.1	0.01526	1.92E-03	35,347	5.44E-08
2025	Construction	0.0425	CON_DPM	85.1	0.02589	3.26E-03	35,347	9.23E-08
2026	Construction	0.0197	CON_DPM	39.5	0.01202	1.51E-03	35,347	4.29E-08
Total		***0.0873***		***174.7***	***0.0532***	***0.0067***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science, San Carlos, CA - Phase 2

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated - Phase 2

Construction Year	Activity	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 $g/s/m^2$
2024	Construction	CON_FUG	0.1383	276.5	0.08417	1.06E-02	35,347	3.00E-07
2025	Construction	CON_FUG	0.0074	14.9	0.00453	5.70E-04	35,347	1.61E-08
2026	Construction	CON_FUG	0.0043	8.6	0.00263	3.31E-04	35,347	9.37E-09
Total			***0.1500***	***300.0***	***0.0913***	***0.0115***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation - Phase 2

Construction Year	Activity	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 $g/s/m^2$
2024	Construction	CON_FUG	0.0664	132.7	0.04040	5.09E-03	35,347	1.44E-07
2025	Construction	CON_FUG	0.0074	14.9	0.00453	5.70E-04	35,347	1.61E-08
2026	Construction	CON_FUG	0.0043	8.6	0.00263	3.31E-04	35,347	9.37E-09
Total			***0.0781***	***156.2***	***0.0476***	***0.0060***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science, San Carlos, CA - Phase 3

DPM Emissions and Modeling Emission Rates - Unmitigated - Phase 3

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2026	Construction	0.0220	CON_DPM	43.9	0.01338	1.69E-03	24,503	6.88E-08
2027	Construction	0.1489	CON_DPM	297.9	0.09068	1.14E-02	24,503	4.66E-07
2028 + 2029	Construction	0.0911	CON_DPM	182.3	0.05549	6.99E-03	24,503	2.85E-07
Total		***0.2621***		***524.1***	***0.1595***	***0.0201***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation - Phase 3

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2026	Construction	0.0078	CON_DPM	15.7	0.00477	6.02E-04	24,503	2.46E-08
2027	Construction	0.0353	CON_DPM	70.7	0.02152	2.71E-03	24,503	1.11E-07
2028 + 2029	Construction	0.0370	CON_DPM	74.0	0.02252	2.84E-03	24,503	1.16E-07
Total		***0.0802***		***160.4***	***0.0488***	***0.0062***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science, San Carlos, CA - Phase 3

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated - Phase 3

Construction Year	Activity	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 $g/s/m^2$
2026	Construction	CON_FUG	0.0306	61.1	0.01860	2.34E-03	24,503	9.56E-08
2027	Construction	CON_FUG	0.1274	254.7	0.07755	9.77E-03	24,503	3.99E-07
2028 + 2029	Construction	CON_FUG	0.0050	10.0	0.00306	3.85E-04	24,503	1.57E-08
Total			***0.1630***	***325.9***	***0.0992***	***0.0125***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation - Phase 3

Construction Year	Activity	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 $g/s/m^2$
2026	Construction	CON_FUG	0.0150	29.9	0.00910	1.15E-03	24,503	4.68E-08
2027	Construction	CON_FUG	0.0604	120.7	0.03676	4.63E-03	24,503	1.89E-07
2028 + 2029	Construction	CON_FUG	0.0050	10.0	0.00306	3.85E-04	24,503	1.57E-08
Total			***0.0804***	***160.7***	***0.0489***	***0.0062***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science Cumulative, San Carlos, CA
Construction Health Impact Summary

Maximum Impacts at MEI Location - Without Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	Adult	(-)	($\mu g/m^3$)
2021	0.0330	0.0414	5.86	0.09	0.01	0.07
2022	0.0820	0.0214	13.46	0.24	0.02	0.10
2023	0.0321	0.0043	0.83	0.09	0.01	0.04
2024	0.0103	0.0104	0.27	0.03	0.00	0.02
2025	0.0091	0.0006	0.24	0.03	0.00	0.01
2026	0.0041	0.0026	0.11	0.01	0.00	0.01
2027	0.0108	0.0093	0.28	0.03	0.00	0.02
2028 + 2029	0.0066	0.0004	0.17	0.02	0.00	0.01
Total	-	-	**21.21**	**0.54**		-
Maximum	0.0820	0.0414	**-**	**-**	**0.02**	**0.10**

Maximum Impacts at MEI Location - With Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	Adult	(-)	($\mu g/m^3$)
2021	0.0031	0.0191	0.55	0.01	0.00	0.02
2022	0.0185	0.0118	3.03	0.05	0.00	0.03
2023	0.0137	0.0043	0.36	0.04	0.00	0.02
2024	0.0019	0.0050	0.05	0.01	0.00	0.01
2025	0.0033	0.0006	0.08	0.01	0.00	0.00
2026	0.0021	0.0014	0.05	0.01	0.00	0.00
2027	0.0026	0.0044	0.07	0.01	0.00	0.01
2028 + 2029	0.0027	0.0004	0.07	0.01	0.00	0.00
Total	-	-	**4.26**	**0.14**	-	-
Maximum	0.0185	0.0191	**-**	**-**	**0.00**	**0.03**

- Tier 4 Interim Engine and BMP Mitigation

Alexandria District Life Science, San Carlos, 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						
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult	Maximum		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2021	0.0275	10	0.37	2021	0.0275	-	-			
1	1	0 - 1	2021	0.0275	10	4.52	2021	0.0275	1	0.08	0.006	0.04	0.06
2	1	1 - 2	2022	0.0685	10	11.25	2022	0.0685	1	0.20	0.014	0.02	0.09
3	1	2 - 3	2023	0.0268	3	0.69	2023	0.0268	1	0.08	0.005	0.00	0.03
4	1	3 - 4	2024	0.0093	3	0.24	2024	0.0093	1	0.03	0.002	0.01	0.02
5	1	4 - 5	2025	0.0083	3	0.21	2025	0.0083	1	0.02	0.002	0.00	0.01
6	1	5 - 6	2026	0.0037	3	0.10	2026	0.0037	1	0.01	0.001	0.00	0.01
7	1	6 - 7	2027	0.0098	3	0.25	2027	0.0098	1	0.03	0.002	0.01	0.02
8	1	7 - 8	2028 + 2029	0.0060	3	0.16	2028 + 2029	0.0060	1	0.02	0.001	0.00	0.01
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						**17.80**				**0.46**			

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, 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						
							Modeled				Maximum		
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*	2021	0.0303	10	0.41	2021	0.0303	-	-			
1	1	0 - 1	2021	0.0303	10	4.98	2021	0.0303	1	0.09	0.006	0.039	0.07
2	1	1 - 2	2022	0.0754	10	12.39	2022	0.0754	1	0.22	0.015	0.020	0.10
3	1	2 - 3	2023	0.0295	3	0.76	2023	0.0295	1	0.08	0.006	0.004	0.03
4	1	3 - 4	2024	0.0098	3	0.25	2024	0.0098	1	0.03	0.002	0.010	0.02
5	1	4 - 5	2025	0.0087	3	0.23	2025	0.0087	1	0.03	0.002	0.001	0.01
6	1	5 - 6	2026	0.0039	3	0.10	2026	0.0039	1	0.01	0.001	0.003	0.01
7	1	6 - 7	2027	0.0103	3	0.27	2027	0.0103	1	0.03	0.002	0.009	0.02
8	1	7 - 8	2028 + 2029	0.0063	3	0.16	2028 + 2029	0.0063	1	0.02	0.001	0.000	0.01
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						**19.55**				**0.50**			

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, 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				Maximum		
			DPM Conc (ug/m3)				Modeled DPM Conc (ug/m3)						
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Year**	**Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2021	0.0330	10	0.45	2021	0.0330	-	-			
1	1	0 - 1	2021	0.0330	10	5.41	2021	0.0330	1	0.09	0.01	0.041	0.07
2	1	1 - 2	2022	0.0820	10	13.46	2022	0.0820	1	0.24	0.02	0.021	0.10
3	1	2 - 3	2023	0.0321	3	0.83	2023	0.0321	1	0.09	0.01	0.004	0.04
4	1	3 - 4	2024	0.0103	3	0.27	2024	0.0103	1	0.03	0.00	0.010	0.02
5	1	4 - 5	2025	0.0091	3	0.24	2025	0.0091	1	0.03	0.00	0.001	0.01
6	1	5 - 6	2026	0.0041	3	0.11	2026	0.0041	1	0.01	0.00	0.003	0.01
7	1	6 - 7	2027	0.0108	3	0.28	2027	0.0108	1	0.03	0.00	0.009	0.02
8	1	7 - 8	2028 + 2029	0.0066	3	0.17	2028 + 2029	0.0066	1	0.02	0.00	0.000	0.01
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						**21.21**				**0.54**			

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, CA - Construction Impacts - With 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				Maximum		
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2021	0.0026	10	0.03	2021	0.0026	-	-			
1	1	0 - 1	2021	0.0026	10	0.42	2021	0.0026	1	0.01	0.0005	0.016	0.02
2	1	1 - 2	2022	0.0154	10	2.53	2022	0.0154	1	0.04	0.003	0.0100	0.03
3	1	2 - 3	2023	0.0115	3	0.30	2023	0.0115	1	0.03	0.002	0.0036	0.02
4	1	3 - 4	2024	0.0017	3	0.04	2024	0.0017	1	0.00	0.0003	0.005	0.01
5	1	4 - 5	2025	0.0030	3	0.08	2025	0.0030	1	0.01	0.001	0.0005	0.00
6	1	5 - 6	2026	0.0019	3	0.05	2026	0.0019	1	0.01	0.000	0.0014	0.00
7	1	6 - 7	2027	0.0026	3	0.07	2027	0.0026	1	0.01	0.001	0.0044	0.01
8	1	7 - 8	2028 + 2029	0.0027	3	0.07	2028 + 2029	0.0027	1	0.01	0.001	0.0004	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						**3.59**				**0.12**			

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, CA - Construction Impacts - With 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*	2021	0.0028	10	0.04	2021	0.0028	-	-			
1	1	0 - 1	2021	0.0028	10	0.46	2021	0.0028	1	0.01	0.001	0.02	0.02
2	1	1 - 2	2022	0.0170	10	2.79	2022	0.0170	1	0.05	0.003	0.01	0.03
3	1	2 - 3	2023	0.0126	3	0.33	2023	0.0126	1	0.04	0.003	0.00	0.02
4	1	3 - 4	2024	0.0018	3	0.05	2024	0.0018	1	0.01	0.000	0.00	0.01
5	1	4 - 5	2025	0.0031	3	0.08	2025	0.0031	1	0.01	0.001	0.00	0.00
6	1	5 - 6	2026	0.0020	3	0.05	2026	0.0020	1	0.01	0.000	0.00	0.00
7	1	6 - 7	2027	0.0026	3	0.07	2027	0.0026	1	0.01	0.001	0.00	0.01
8	1	7 - 8	2028 + 2029	0.0027	3	0.07	2028 + 2029	0.0027	1	0.01	0.001	0.00	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						**3.93**				**0.13**			

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, 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				Maximum		
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2021	0.0031	10	0.04	2021	0.0031	-	-			
1	1	0 - 1	2021	0.0031	10	0.51	2021	0.0031	1	0.01	0.001	0.02	0.02
2	1	1 - 2	2022	0.0185	10	3.03	2022	0.0185	1	0.05	0.004	0.012	0.03
3	1	2 - 3	2023	0.0137	3	0.36	2023	0.0137	1	0.04	0.003	0.004	0.02
4	1	3 - 4	2024	0.0019	3	0.05	2024	0.0019	1	0.01	0.000	0.00	0.01
5	1	4 - 5	2025	0.0033	3	0.08	2025	0.0033	1	0.01	0.001	0.001	0.00
6	1	5 - 6	2026	0.0021	3	0.05	2026	0.0021	1	0.01	0.000	0.001	0.00
7	1	6 - 7	2027	0.0026	3	0.07	2027	0.0026	1	0.01	0.001	0.004	0.01
8	1	7 - 8	2028 + 2029	0.0027	3	0.07	2028 + 2029	0.0027	1	0.01	0.001	0.000	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						**4.26**				**0.14**			

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, CA - Construction Impacts - Without Mitig
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction Impacts at Daycare - 1 meter - Infant 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

	School 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 =	3.73	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)		Age* Sensitivity Factor
			Year	Annual	
1	1	0.5 - 1.5	2028 + 2029	0.1778	10
2	1			0.0000	10
3	1			0.0000	3
4	1			0.0000	3
5	1			0.0000	3
6	1			0.0000	3
7	1			0.0000	3
8	1			0.0000	3
9	1			0.0000	3
Total Increased Cancer Risk					

* Children assumed to be 6 months of age with 1 year of Construction Exposure

Alexandria District Life Science, San Carlos, CA - Construction Impacts - With Mitigati
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction Impacts at Daycare - 1 meter - Infant 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

	School 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 =	3.73	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)		Age* Sensitivity Factor
			Year	Annual	
1	1	0.5 - 1.5	2028 + 2029	0.0726	10
2	1			0.0000	10
3	1			0.0000	3
4	1			0.0000	3
5	1			0.0000	3
6	1			0.0000	3
7	1			0.0000	3
8	1			0.0000	3
9	1			0.0000	3
Total Increased Cancer Risk					

* Children assumed to be 6 months of age with 1 year of Construction Exposure

Alexandria District Life Science, San Carlos, CA - Construction Impacts - With Mitigati
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction Impacts at Daycare - 1 meter - Infant 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

	School 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 =	3.73	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)		Age* Sensitivity Factor
			Year	Annual	
1	1	0.5 - 1.5	2028 + 2029	0.0145	10
2	1			0.0000	10
3	1			0.0000	3
4	1			0.0000	3
5	1			0.0000	3
6	1			0.0000	3
7	1			0.0000	3
8	1			0.0000	3
9	1			0.0000	3
Total Increased Cancer Risk					

* Children assumed to be 6 months of age with 1 year of Construction Exposure

Alexandria District Life Science, San Carlos, 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)	
(6) 2,000kW, and (6) 1,500kW diesel-fired emergency generator	0.124	45.40	
CalEEMod DPM Emissions	2.27E-02	tons/year	

Model	AERMOD
Source	Diesel Generator Engine
Source Type	Point
Meteorological Data	2011 - 2015 San Carlos Airport Meterological Data
Point Source Stack Parameters	
Generator Engine Size (hp)	2683 & 2012
Stack Height (ft)	10.00
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)	0.005183

* AERMOD default

**BAAQMD default generator parameters

Alexandria District Life Science, San Carlos, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors - 1.5m Receptor Height
Impact at Project MEI (28-year Exposure)

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information						
			DPM Conc (ug/m3)						
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**		**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2022	0.0000	10	0.000				
1	1	0 - 1	2022	0.0000	10	0.000				
2	1	1 - 2	2023	0.0000	10	0.000				
3	1	2 - 3	2024	0.0009	3	0.022		0.00017	0.0000	0.0009
4	1	3 - 4	2025	0.0009	3	0.022		0.00017	0.0000	0.0009
5	1	4 - 5	2026	0.0009	3	0.022		0.00017	0.0000	0.0009
6	1	5 - 6	2027	0.0009	3	0.022		0.00017	0.0000	0.0009
7	1	6 - 7	2028	0.0009	3	0.022		0.00017	0.0000	0.0009
8	1	7 - 8	2029	0.0009	3	0.022		0.00017	0.0000	0.0009
9	1	8 - 9	2030	0.0009	3	0.022		0.00017	0.0000	0.0009
10	1	9 - 10	2031	0.0009	3	0.022		0.00017	0.0000	0.0009
11	1	10 - 11	2032	0.0009	3	0.022		0.00017	0.0000	0.0009
12	1	11 - 12	2033	0.0009	3	0.022		0.00017	0.0000	0.0009
13	1	12 - 13	2034	0.0009	3	0.022		0.00017	0.0000	0.0009
14	1	13 - 14	2035	0.0009	3	0.022		0.00017	0.0000	0.0009
15	1	14 - 15	2036	0.0009	3	0.022		0.00017	0.0000	0.0009
16	1	15 - 16	2037	0.0009	3	0.022		0.00017	0.0000	0.0009
17	1	16-17	2038	0.0009	1	0.002		0.00017	0.0000	0.0009
18	1	17-18	2039	0.0009	1	0.002		0.00017	0.0000	0.0009
19	1	18-19	2040	0.0009	1	0.002		0.00017	0.0000	0.0009
20	1	19-20	2041	0.0009	1	0.002		0.00017	0.0000	0.0009
21	1	20-21	2042	0.0009	1	0.002		0.00017	0.0000	0.0009
22	1	21-22	2043	0.0009	1	0.002		0.00017	0.0000	0.0009
23	1	22-23	2044	0.0009	1	0.002		0.00017	0.0000	0.0009
24	1	23-24	2045	0.0009	1	0.002		0.00017	0.0000	0.0009
25	1	24-25	2046	0.0009	1	0.002		0.00017	0.0000	0.0009
26	1	25-26	2047	0.0009	1	0.002		0.00017	0.0000	0.0009
27	1	26-27	2048	0.0009	1	0.002		0.00017	0.0000	0.0009
28	1	27-28	2049	0.0009	1	0.002		0.00017	0.0000	0.0009
29	1	28-29	2050	0.0009	1	0.002		0.00017	0.0000	0.0009
30	1	29-30	2051	0.0009	1	0.002		0.00017	0.0000	0.0009
Total Increased Cancer Risk						**0.34**	**Max**	**0.00017**	**0.0000**	**0.0009**

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at On-Site Daycare Infant Exposure- 1m MEI Receptor Heights

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 $(\mu g/m^3)$
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

	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	1200	520	240
A =	1	1	1	1
EF =	250	250	250	250
AT =	70	70	70	70
FAH =	1.00	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

			Infant/Child - Exposure Information						
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)**		**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
1	1	0 - 1	2027	0.0033	10	0.42		0.00066	0.0033	0.0066
2	1	1 - 2	2028	0.0033	10	0.42		0.00066	0.0033	0.0066
3	1	2 - 3	2029	0.0033	3	0.21		0.00066	0.0033	0.0066
4	1	3 - 4	2030	0.0033	3	0.21		0.00066	0.0033	0.0066
5	1	4 - 5	2031	0.0033	3	0.21		0.00066	0.0033	0.0066
Total Increased Cancer Risk						**1.67**	**Max**	**0.00066**	**0.0033**	**0.0066**

Alexandria District Life Science, San Carlos, CA - Cancer Risks from Project Operation
Project Emergency Generator - With MERV16
Impacts at On-Site Daycare Infant Exposure- 1m MEI Receptor Heights

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 $(\mu g/m^3)$
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

	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	1200	520	240
A =	1	1	1	1
EF =	250	250	250	250
AT =	70	70	70	70
FAH =	1.00	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	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)		Hazard Index	Fugitive PM2.5	Total PM2.5
1	1	0 - 1	2027	0.0007	10	0.08		0.00013	0.0007	0.0013
2	1	1 - 2	2028	0.0007	10	0.08		0.00013	0.0007	0.0013
3	1	2 - 3	2029	0.0007	3	0.04		0.00013	0.0007	0.0013
4	1	3 - 4	2030	0.0007	3	0.04		0.00013	0.0007	0.0013
5	1	4 - 5	2031	0.0007	3	0.04		0.00013	0.0007	0.0013
Total Increased Cancer Risk						**0.33**	**Max**	**0.00013**	**0.0007**	**0.0013**

Alexandria District Life Science, San Carlos, CA
Evaporative Cooling Tower PM Emissions per Cooling Tower

No. of Cooling Towers	22
No. Cooling Tower Cells	2
Operating Hours per Year	8,760
Circulating Water Flow Rate per Cell (gpm)	1,250
Total Circulating Water Flow Rate (gpm)	2,500
Influent Water Total Dissolved Solids (TDS) Conc. (ppm)*	104
Circulating Water Cycles of Concentration*	5
Cooling Tower Circulating Water TDS (ppm)	520
Mist Eliminator Efficiency (%)	0.002
Total Cooling Tower Drift (gpm)	0.05

Particulate Matter Emissions

	PM	**PM10**	**PM2.5**
Fraction of PM**	1.0	0.7	0.42
Hourly (lb/hr)	0.0130	0.0091	0.0055
Average Daily (lb/day)	0.3122	0.2186	0.1311
Annual lb/yr)	113.97	79.78	47.87
Annual (ton/yr)	0.057	0.040	0.024

*TDS value based on Range Max from 2022 City of San Carlos Water Quality Report. Circulating water cycles of concentration assumed.

** South Coast AQMD, Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds, Appendix A.

Alexandria District Life Science, San Carlos, CA - Project Cooling Tower - PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at MEI Receptor (1.5 m receptor height)

Emission Year	2024
Receptor Information	MEI receptor
Number of Receptors	1
Receptor Height	1.5 meter
Receptor Distances	At MEI location
Meteorological Conditions	
BAQMD San Carlos Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3) MEI
2013-2017	0.04

Alexandria District Life Science, San Carlos, CA - Project Cooling Tower - PM2.5 w/ MERV16 Filtration
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite Daycare Receptor (1 m receptor height)

Emission Year	2029
Receptor Information	MEI receptor
Number of Receptors	35
Receptor Height	1 meter
Receptor Distances	At MEI location
Meteorological Conditions	
BAQMD San Carlos Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3) MEI
2013-2017	0.04

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Haul Routes
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_HAL	Haul Route Inbound	NB	2	317.9	0.20	13.3	43.7	3.4	35	7,974	4,233	45,563	1.732E-07	1.277E-07	6.8	3.16
DPM_SB_HAL	Haul Route Outbound	SB	2	836.0	0.52	13.3	43.7	3.4	35	7,974	11,132	119,819	1.732E-07	1.277E-07	6.8	3.16
									Total	15,948						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.04022			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and DPM Emissions - DPM_NB_HAL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	307	6.78E-04	9	6.57%	524	1.16E-03	17	6.60%	526	1.16E-03
2	3.18%	254	5.60E-04	10	8.24%	657	1.45E-03	18	4.09%	326	7.19E-04
3	2.35%	187	4.13E-04	11	6.06%	484	1.07E-03	19	2.38%	190	4.19E-04
4	1.01%	80	1.77E-04	12	7.24%	577	1.27E-03	20	1.21%	96	2.12E-04
5	1.01%	80	1.77E-04	13	6.73%	537	1.18E-03	21	3.05%	243	5.36E-04
6	2.18%	174	3.83E-04	14	6.57%	524	1.16E-03	22	5.06%	403	8.90E-04
7	4.72%	377	8.31E-04	15	5.90%	470	1.04E-03	23	3.55%	283	6.25E-04
8	3.58%	286	6.31E-04	16	4.22%	337	7.43E-04	24	0.67%	53	1.18E-04
								Total		7,974	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_HAL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	307	1.78E-03	9	6.57%	524	3.04E-03	17	6.60%	526	3.05E-03
2	3.18%	254	1.47E-03	10	8.24%	657	3.81E-03	18	4.09%	326	1.89E-03
3	2.35%	187	1.09E-03	11	6.06%	484	2.81E-03	19	2.38%	190	1.10E-03
4	1.01%	80	4.65E-04	12	7.24%	577	3.35E-03	20	1.21%	96	5.58E-04
5	1.01%	80	4.65E-04	13	6.73%	537	3.12E-03	21	3.05%	243	1.41E-03
6	2.18%	174	1.01E-03	14	6.57%	524	3.04E-03	22	5.06%	403	2.34E-03
7	4.72%	377	2.19E-03	15	5.90%	470	2.73E-03	23	3.55%	283	1.64E-03
8	3.58%	286	1.66E-03	16	4.22%	337	1.95E-03	24	0.67%	53	3.10E-04
								Total		7,974	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Haul Routes
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

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
PM2.5_NB_ECR	Haul Route Inbound	NB	2	317.9	0.20	13.3	44	1.3	35	7,974	4,233	45,563	1.66E-07	1.22E-07	2.6	1.21
PM2.5_SB_ECR	Haul Route Outbound	SB	2	836.0	0.52	13.3	44	1.3	35	7,974	11,132	119,819	1.66E-07	1.22E-07	2.6	1.21
									Total	15,948						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.038502			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	90	1.89E-04	9	7.12%	568	1.20E-03	17	7.43%	593	1.25E-03
2	0.42%	33	7.00E-05	10	4.38%	350	7.38E-04	18	8.23%	657	1.39E-03
3	0.37%	30	6.26E-05	11	4.65%	371	7.83E-04	19	5.72%	456	9.64E-04
4	0.17%	14	2.87E-05	12	5.89%	470	9.93E-04	20	4.31%	343	7.25E-04
5	0.45%	36	7.59E-05	13	6.17%	492	1.04E-03	21	3.25%	259	5.48E-04
6	0.85%	68	1.44E-04	14	6.05%	482	1.02E-03	22	3.31%	264	5.58E-04
7	3.73%	298	6.29E-04	15	7.06%	563	1.19E-03	23	2.48%	198	4.18E-04
8	7.77%	619	1.31E-03	16	7.18%	573	1.21E-03	24	1.87%	149	3.15E-04
								Total		7,974	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	90	4.98E-04	9	7.12%	568	3.15E-03	17	7.43%	593	3.29E-03
2	0.42%	33	1.84E-04	10	4.38%	350	1.94E-03	18	8.23%	657	3.65E-03
3	0.37%	30	1.65E-04	11	4.65%	371	2.06E-03	19	5.72%	456	2.54E-03
4	0.17%	14	7.56E-05	12	5.89%	470	2.61E-03	20	4.31%	343	1.91E-03
5	0.45%	36	2.00E-04	13	6.17%	492	2.73E-03	21	3.25%	259	1.44E-03
6	0.85%	68	3.78E-04	14	6.05%	482	2.68E-03	22	3.31%	264	1.47E-03
7	3.73%	298	1.65E-03	15	7.06%	563	3.13E-03	23	2.48%	198	1.10E-03
8	7.77%	619	3.44E-03	16	7.18%	573	3.18E-03	24	1.87%	149	8.28E-04
								Total		7,974	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Haul Routes
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

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_NB_ECR	Haul Route Inbound	NB	2	317.9	0.20	13.3	44	1.3	35	7,974	4,233	45,563	5.97E-07	4.40E-07	2.6	1.21
TEXH_SB_ECR	Haul Route Outbound	SB	2	836.0	0.52	13.3	44	1.3	35	7,974	11,132	119,819	5.97E-07	4.40E-07	2.6	1.21
									Total	15,948						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.13859			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	90	6.82E-04	9	7.12%	568	4.32E-03	17	7.43%	593	4.51E-03
2	0.42%	33	2.52E-04	10	4.38%	350	2.66E-03	18	8.23%	657	4.99E-03
3	0.37%	30	2.26E-04	11	4.65%	371	2.82E-03	19	5.72%	456	3.47E-03
4	0.17%	14	1.03E-04	12	5.89%	470	3.57E-03	20	4.31%	343	2.61E-03
5	0.45%	36	2.73E-04	13	6.17%	492	3.74E-03	21	3.25%	259	1.97E-03
6	0.85%	68	5.17E-04	14	6.05%	482	3.67E-03	22	3.31%	264	2.01E-03
7	3.73%	298	2.26E-03	15	7.06%	563	4.28E-03	23	2.48%	198	1.50E-03
8	7.77%	619	4.71E-03	16	7.18%	573	4.36E-03	24	1.87%	149	1.13E-03
								Total		7,974	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	90	1.79E-03	9	7.12%	568	1.14E-02	17	7.43%	593	1.19E-02
2	0.42%	33	6.63E-04	10	4.38%	350	6.99E-03	18	8.23%	657	1.31E-02
3	0.37%	30	5.93E-04	11	4.65%	371	7.42E-03	19	5.72%	456	9.13E-03
4	0.17%	14	2.72E-04	12	5.89%	470	9.40E-03	20	4.31%	343	6.87E-03
5	0.45%	36	7.19E-04	13	6.17%	492	9.84E-03	21	3.25%	259	5.18E-03
6	0.85%	68	1.36E-03	14	6.05%	482	9.65E-03	22	3.31%	264	5.28E-03
7	3.73%	298	5.95E-03	15	7.06%	563	1.13E-02	23	2.48%	198	3.96E-03
8	7.77%	619	1.24E-02	16	7.18%	573	1.15E-02	24	1.87%	149	2.98E-03
								Total		7,974	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Haul Routes
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

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_NB_ECR	Haul Route Inbound	NB	2	317.9	0.20	13.3	44	1.3	35	7,974	4,233	45,563	5.77E-08	4.25E-08	2.6	1.21
TEVAP_SB_ECR	Haul Route Outbound	SB	2	836.0	0.52	13.3	44	1.3	35	7,974	11,132	119,819	5.77E-08	4.25E-08	2.6	1.21
									Total	15,948						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.46871			
Emissions per Vehicle per Mile (g/VMT)	0.01339			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	90	6.59E-05	9	7.12%	568	4.17E-04	17	7.43%	593	4.36E-04
2	0.42%	33	2.44E-05	10	4.38%	350	2.57E-04	18	8.23%	657	4.82E-04
3	0.37%	30	2.18E-05	11	4.65%	371	2.72E-04	19	5.72%	456	3.35E-04
4	0.17%	14	1.00E-05	12	5.89%	470	3.45E-04	20	4.31%	343	2.52E-04
5	0.45%	36	2.64E-05	13	6.17%	492	3.62E-04	21	3.25%	259	1.90E-04
6	0.85%	68	5.00E-05	14	6.05%	482	3.55E-04	22	3.31%	264	1.94E-04
7	3.73%	298	2.19E-04	15	7.06%	563	4.13E-04	23	2.48%	198	1.45E-04
8	7.77%	619	4.55E-04	16	7.18%	573	4.21E-04	24	1.87%	149	1.09E-04
								Total		7,974	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	90	1.73E-04	9	7.12%	568	1.10E-03	17	7.43%	593	1.15E-03
2	0.42%	33	6.40E-05	10	4.38%	350	6.75E-04	18	8.23%	657	1.27E-03
3	0.37%	30	5.73E-05	11	4.65%	371	7.17E-04	19	5.72%	456	8.82E-04
4	0.17%	14	2.63E-05	12	5.89%	470	9.08E-04	20	4.31%	343	6.63E-04
5	0.45%	36	6.94E-05	13	6.17%	492	9.51E-04	21	3.25%	259	5.01E-04
6	0.85%	68	1.31E-04	14	6.05%	482	9.32E-04	22	3.31%	264	5.10E-04
7	3.73%	298	5.75E-04	15	7.06%	563	1.09E-03	23	2.48%	198	3.82E-04
8	7.77%	619	1.20E-03	16	7.18%	573	1.11E-03	24	1.87%	149	2.88E-04
								Total		7,974	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Haul Routes
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2021**

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
FUG_NB_ECR	Haul Route Inbound	NB	2	317.9	0.20	13.3	44	1.3	35	7,974	4,233	45,563	6.41E-07	4.73E-07	2.6	1.21
FUG_SB_ECR	Haul Route Outbound	SB	2	836.0	0.52	13.3	44	1.3	35	7,974	11,132	119,819	6.41E-07	4.73E-07	2.6	1.21
									Total	15,948						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00437			
Brake Wear - Emissions per Vehicle (g/VMT)	0.04915			
Road Dust - Emissions per Vehicle (g/VMT)	0.09539			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.14891			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	90	7.33E-04	9	7.12%	568	4.64E-03	17	7.43%	593	4.84E-03
2	0.42%	33	2.71E-04	10	4.38%	350	2.86E-03	18	8.23%	657	5.36E-03
3	0.37%	30	2.42E-04	11	4.65%	371	3.03E-03	19	5.72%	456	3.73E-03
4	0.17%	14	1.11E-04	12	5.89%	470	3.84E-03	20	4.31%	343	2.80E-03
5	0.45%	36	2.94E-04	13	6.17%	492	4.02E-03	21	3.25%	259	2.12E-03
6	0.85%	68	5.56E-04	14	6.05%	482	3.94E-03	22	3.31%	264	2.16E-03
7	3.73%	298	2.43E-03	15	7.06%	563	4.60E-03	23	2.48%	198	1.62E-03
8	7.77%	619	5.06E-03	16	7.18%	573	4.68E-03	24	1.87%	149	1.22E-03
								Total		7,974	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	90	1.93E-03	9	7.12%	568	1.22E-02	17	7.43%	593	1.27E-02
2	0.42%	33	7.12E-04	10	4.38%	350	7.51E-03	18	8.23%	657	1.41E-02
3	0.37%	30	6.37E-04	11	4.65%	371	7.97E-03	19	5.72%	456	9.80E-03
4	0.17%	14	2.92E-04	12	5.89%	470	1.01E-02	20	4.31%	343	7.38E-03
5	0.45%	36	7.72E-04	13	6.17%	492	1.06E-02	21	3.25%	259	5.57E-03
6	0.85%	68	1.46E-03	14	6.05%	482	1.04E-02	22	3.31%	264	5.67E-03
7	3.73%	298	6.39E-03	15	7.06%	563	1.21E-02	23	2.48%	198	4.25E-03
8	7.77%	619	1.33E-02	16	7.18%	573	1.23E-02	24	1.87%	149	3.20E-03
								Total		7,974	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	43.7	3.4	30	3,139	5,626	60,554	4.222E-10	3.113E-10	6.8	3.16
DPM_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	43.7	3.4	30	3,139	5,608	60,368	4.222E-10	3.113E-10	6.8	3.16
									Total	6,278						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00025			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	121	2.20E-06	9	6.57%	206	3.74E-06	17	6.60%	207	3.76E-06
2	3.18%	100	1.81E-06	10	8.24%	259	4.70E-06	18	4.09%	128	2.33E-06
3	2.35%	74	1.34E-06	11	6.06%	190	3.46E-06	19	2.38%	75	1.36E-06
4	1.01%	32	5.73E-07	12	7.24%	227	4.12E-06	20	1.21%	38	6.87E-07
5	1.01%	32	5.73E-07	13	6.73%	211	3.84E-06	21	3.05%	96	1.74E-06
6	2.18%	68	1.24E-06	14	6.57%	206	3.74E-06	22	5.06%	159	2.88E-06
7	4.72%	148	2.69E-06	15	5.90%	185	3.36E-06	23	3.55%	111	2.02E-06
8	3.58%	113	2.04E-06	16	4.22%	133	2.41E-06	24	0.67%	21	3.82E-07
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	121	2.19E-06	9	6.57%	206	3.73E-06	17	6.60%	207	3.75E-06
2	3.18%	100	1.81E-06	10	8.24%	259	4.68E-06	18	4.09%	128	2.32E-06
3	2.35%	74	1.33E-06	11	6.06%	190	3.45E-06	19	2.38%	75	1.35E-06
4	1.01%	32	5.71E-07	12	7.24%	227	4.11E-06	20	1.21%	38	6.85E-07
5	1.01%	32	5.71E-07	13	6.73%	211	3.83E-06	21	3.05%	96	1.73E-06
6	2.18%	68	1.24E-06	14	6.57%	206	3.73E-06	22	5.06%	159	2.87E-06
7	4.72%	148	2.68E-06	15	5.90%	185	3.35E-06	23	3.55%	111	2.02E-06
8	3.58%	113	2.04E-06	16	4.22%	133	2.40E-06	24	0.67%	21	3.81E-07
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

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
PM2.5_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	3,139	5,626	60,554	2.70E-09	1.99E-09	2.6	1.21
PM2.5_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	3,139	5,608	60,368	2.70E-09	1.99E-09	2.6	1.21
									Total	6,278						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.001595			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	4.11E-06	9	7.12%	223	2.60E-05	17	7.43%	233	2.71E-05
2	0.42%	13	1.52E-06	10	4.38%	138	1.60E-05	18	8.23%	258	3.01E-05
3	0.37%	12	1.36E-06	11	4.65%	146	1.70E-05	19	5.72%	180	2.09E-05
4	0.17%	5	6.23E-07	12	5.89%	185	2.15E-05	20	4.31%	135	1.57E-05
5	0.45%	14	1.65E-06	13	6.17%	194	2.25E-05	21	3.25%	102	1.19E-05
6	0.85%	27	3.11E-06	14	6.05%	190	2.21E-05	22	3.31%	104	1.21E-05
7	3.73%	117	1.36E-05	15	7.06%	222	2.58E-05	23	2.48%	78	9.06E-06
8	7.77%	244	2.84E-05	16	7.18%	225	2.62E-05	24	1.87%	59	6.82E-06
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	4.09E-06	9	7.12%	223	2.59E-05	17	7.43%	233	2.71E-05
2	0.42%	13	1.51E-06	10	4.38%	138	1.60E-05	18	8.23%	258	3.00E-05
3	0.37%	12	1.35E-06	11	4.65%	146	1.69E-05	19	5.72%	180	2.08E-05
4	0.17%	5	6.21E-07	12	5.89%	185	2.15E-05	20	4.31%	135	1.57E-05
5	0.45%	14	1.64E-06	13	6.17%	194	2.25E-05	21	3.25%	102	1.18E-05
6	0.85%	27	3.11E-06	14	6.05%	190	2.20E-05	22	3.31%	104	1.21E-05
7	3.73%	117	1.36E-05	15	7.06%	222	2.57E-05	23	2.48%	78	9.03E-06
8	7.77%	244	2.83E-05	16	7.18%	225	2.61E-05	24	1.87%	59	6.80E-06
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

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_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	3,139	5,626	60,554	7.23E-08	5.33E-08	2.6	1.21
TEXH_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	3,139	5,608	60,368	7.23E-08	5.33E-08	2.6	1.21
									Total	6,278						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.04263			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	1.10E-04	9	7.12%	223	6.95E-04	17	7.43%	233	7.25E-04
2	0.42%	13	4.06E-05	10	4.38%	138	4.28E-04	18	8.23%	258	8.03E-04
3	0.37%	12	3.63E-05	11	4.65%	146	4.54E-04	19	5.72%	180	5.58E-04
4	0.17%	5	1.67E-05	12	5.89%	185	5.75E-04	20	4.31%	135	4.20E-04
5	0.45%	14	4.40E-05	13	6.17%	194	6.02E-04	21	3.25%	102	3.17E-04
6	0.85%	27	8.33E-05	14	6.05%	190	5.90E-04	22	3.31%	104	3.23E-04
7	3.73%	117	3.64E-04	15	7.06%	222	6.89E-04	23	2.48%	78	2.42E-04
8	7.77%	244	7.58E-04	16	7.18%	225	7.01E-04	24	1.87%	59	1.82E-04
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	1.09E-04	9	7.12%	223	6.92E-04	17	7.43%	233	7.23E-04
2	0.42%	13	4.04E-05	10	4.38%	138	4.26E-04	18	8.23%	258	8.01E-04
3	0.37%	12	3.62E-05	11	4.65%	146	4.52E-04	19	5.72%	180	5.57E-04
4	0.17%	5	1.66E-05	12	5.89%	185	5.73E-04	20	4.31%	135	4.19E-04
5	0.45%	14	4.38E-05	13	6.17%	194	6.01E-04	21	3.25%	102	3.16E-04
6	0.85%	27	8.30E-05	14	6.05%	190	5.89E-04	22	3.31%	104	3.22E-04
7	3.73%	117	3.63E-04	15	7.06%	222	6.87E-04	23	2.48%	78	2.41E-04
8	7.77%	244	7.55E-04	16	7.18%	225	6.99E-04	24	1.87%	59	1.82E-04
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

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_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	3,139	5,626	60,554	6.49E-08	4.79E-08	2.6	1.21
TEVAP_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	3,139	5,608	60,368	6.49E-08	4.79E-08	2.6	1.21
									Total	6,278						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle per Hour (g/hour)	1.14876			
Emissions per Vehicle per Mile (g/VMT)	0.03829			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	9.86E-05	9	7.12%	223	6.24E-04	17	7.43%	233	6.52E-04
2	0.42%	13	3.64E-05	10	4.38%	138	3.84E-04	18	8.23%	258	7.22E-04
3	0.37%	12	3.26E-05	11	4.65%	146	4.08E-04	19	5.72%	180	5.02E-04
4	0.17%	5	1.50E-05	12	5.89%	185	5.17E-04	20	4.31%	135	3.77E-04
5	0.45%	14	3.95E-05	13	6.17%	194	5.41E-04	21	3.25%	102	2.85E-04
6	0.85%	27	7.48E-05	14	6.05%	190	5.30E-04	22	3.31%	104	2.90E-04
7	3.73%	117	3.27E-04	15	7.06%	222	6.19E-04	23	2.48%	78	2.17E-04
8	7.77%	244	6.81E-04	16	7.18%	225	6.30E-04	24	1.87%	59	1.64E-04
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	9.83E-05	9	7.12%	223	6.22E-04	17	7.43%	233	6.50E-04
2	0.42%	13	3.63E-05	10	4.38%	138	3.83E-04	18	8.23%	258	7.20E-04
3	0.37%	12	3.25E-05	11	4.65%	146	4.06E-04	19	5.72%	180	5.00E-04
4	0.17%	5	1.49E-05	12	5.89%	185	5.15E-04	20	4.31%	135	3.76E-04
5	0.45%	14	3.94E-05	13	6.17%	194	5.39E-04	21	3.25%	102	2.84E-04
6	0.85%	27	7.46E-05	14	6.05%	190	5.29E-04	22	3.31%	104	2.89E-04
7	3.73%	117	3.26E-04	15	7.06%	222	6.17E-04	23	2.48%	78	2.17E-04
8	7.77%	244	6.79E-04	16	7.18%	225	6.28E-04	24	1.87%	59	1.63E-04
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

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
FUG_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	3,139	5,626	60,554	5.73E-08	4.22E-08	2.6	1.21
FUG_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	3,139	5,608	60,368	5.73E-08	4.22E-08	2.6	1.21
									Total	6,278						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
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)	0.01492			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03378			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	8.69E-05	9	7.12%	223	5.50E-04	17	7.43%	233	5.75E-04
2	0.42%	13	3.21E-05	10	4.38%	138	3.39E-04	18	8.23%	258	6.37E-04
3	0.37%	12	2.88E-05	11	4.65%	146	3.60E-04	19	5.72%	180	4.42E-04
4	0.17%	5	1.32E-05	12	5.89%	185	4.56E-04	20	4.31%	135	3.33E-04
5	0.45%	14	3.48E-05	13	6.17%	194	4.77E-04	21	3.25%	102	2.51E-04
6	0.85%	27	6.60E-05	14	6.05%	190	4.68E-04	22	3.31%	104	2.56E-04
7	3.73%	117	2.89E-04	15	7.06%	222	5.46E-04	23	2.48%	78	1.92E-04
8	7.77%	244	6.00E-04	16	7.18%	225	5.55E-04	24	1.87%	59	1.44E-04
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	8.67E-05	9	7.12%	223	5.49E-04	17	7.43%	233	5.73E-04
2	0.42%	13	3.20E-05	10	4.38%	138	3.38E-04	18	8.23%	258	6.35E-04
3	0.37%	12	2.87E-05	11	4.65%	146	3.58E-04	19	5.72%	180	4.41E-04
4	0.17%	5	1.32E-05	12	5.89%	185	4.54E-04	20	4.31%	135	3.32E-04
5	0.45%	14	3.47E-05	13	6.17%	194	4.76E-04	21	3.25%	102	2.51E-04
6	0.85%	27	6.58E-05	14	6.05%	190	4.66E-04	22	3.31%	104	2.55E-04
7	3.73%	117	2.88E-04	15	7.06%	222	5.44E-04	23	2.48%	78	1.91E-04
8	7.77%	244	5.99E-04	16	7.18%	225	5.54E-04	24	1.87%	59	1.44E-04
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

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)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	31.7	3.4	35	3,139	3,328	35,822	5.610E-10	4.136E-10	6.8	3.16
DPM_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	31.7	3.4	35	3,139	3,364	36,207	5.610E-10	4.136E-10	6.8	3.16
									Total	6,278						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00024			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	121	1.73E-06	9	6.57%	206	2.94E-06	17	6.60%	207	2.96E-06
2	3.18%	100	1.43E-06	10	8.24%	259	3.69E-06	18	4.09%	128	1.83E-06
3	2.35%	74	1.05E-06	11	6.06%	190	2.72E-06	19	2.38%	75	1.07E-06
4	1.01%	32	4.50E-07	12	7.24%	227	3.24E-06	20	1.21%	38	5.40E-07
5	1.01%	32	4.50E-07	13	6.73%	211	3.02E-06	21	3.05%	96	1.37E-06
6	2.18%	68	9.76E-07	14	6.57%	206	2.94E-06	22	5.06%	159	2.27E-06
7	4.72%	148	2.12E-06	15	5.90%	185	2.64E-06	23	3.55%	111	1.59E-06
8	3.58%	113	1.61E-06	16	4.22%	133	1.89E-06	24	0.67%	21	3.00E-07
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	121	1.74E-06	9	6.57%	206	2.97E-06	17	6.60%	207	2.99E-06
2	3.18%	100	1.44E-06	10	8.24%	259	3.73E-06	18	4.09%	128	1.85E-06
3	2.35%	74	1.06E-06	11	6.06%	190	2.75E-06	19	2.38%	75	1.08E-06
4	1.01%	32	4.55E-07	12	7.24%	227	3.28E-06	20	1.21%	38	5.46E-07
5	1.01%	32	4.55E-07	13	6.73%	211	3.05E-06	21	3.05%	96	1.38E-06
6	2.18%	68	9.86E-07	14	6.57%	206	2.97E-06	22	5.06%	159	2.29E-06
7	4.72%	148	2.14E-06	15	5.90%	185	2.67E-06	23	3.55%	111	1.61E-06
8	3.58%	113	1.62E-06	16	4.22%	133	1.91E-06	24	0.67%	21	3.03E-07
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

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
PM2.5_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	3,139	3,328	35,822	3.15E-09	2.32E-09	2.6	1.21
PM2.5_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	3,139	3,364	36,207	3.15E-09	2.32E-09	2.6	1.21
									Total	6,278						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	30		
Emissions per Vehicle (g/VMT)	0.001347	0.00240		

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	2.83E-06	9	7.12%	223	1.79E-05	17	7.43%	233	1.87E-05
2	0.42%	13	1.05E-06	10	4.38%	138	1.10E-05	18	8.23%	258	2.07E-05
3	0.37%	12	9.35E-07	11	4.65%	146	1.17E-05	19	5.72%	180	1.44E-05
4	0.17%	5	4.29E-07	12	5.89%	185	1.48E-05	20	4.31%	135	1.08E-05
5	0.45%	14	1.13E-06	13	6.17%	194	1.55E-05	21	3.25%	102	8.18E-06
6	0.85%	27	2.15E-06	14	6.05%	190	1.52E-05	22	3.31%	104	8.33E-06
7	3.73%	117	9.39E-06	15	7.06%	222	1.77E-05	23	2.48%	78	6.24E-06
8	7.77%	244	1.95E-05	16	7.18%	225	1.81E-05	24	1.87%	59	4.70E-06
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	2.86E-06	9	7.12%	223	1.81E-05	17	7.43%	233	1.89E-05
2	0.42%	13	1.06E-06	10	4.38%	138	1.11E-05	18	8.23%	258	2.09E-05
3	0.37%	12	9.45E-07	11	4.65%	146	1.18E-05	19	5.72%	180	1.45E-05
4	0.17%	5	4.34E-07	12	5.89%	185	1.50E-05	20	4.31%	135	1.09E-05
5	0.45%	14	1.15E-06	13	6.17%	194	1.57E-05	21	3.25%	102	8.26E-06
6	0.85%	27	2.17E-06	14	6.05%	190	1.54E-05	22	3.31%	104	8.42E-06
7	3.73%	117	9.49E-06	15	7.06%	222	1.79E-05	23	2.48%	78	6.31E-06
8	7.77%	244	1.97E-05	16	7.18%	225	1.83E-05	24	1.87%	59	4.75E-06
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

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_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	3,139	3,328	35,822	8.38E-08	6.18E-08	2.6	1.21
TEXH_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	3,139	3,364	36,207	8.38E-08	6.18E-08	2.6	1.21
									Total	6,278						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	30		
Emissions per Vehicle (g/VMT)	0.03583	0.04896		

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	7.52E-05	9	7.12%	223	4.76E-04	17	7.43%	233	4.97E-04
2	0.42%	13	2.78E-05	10	4.38%	138	2.93E-04	18	8.23%	258	5.51E-04
3	0.37%	12	2.49E-05	11	4.65%	146	3.11E-04	19	5.72%	180	3.83E-04
4	0.17%	5	1.14E-05	12	5.89%	185	3.94E-04	20	4.31%	135	2.88E-04
5	0.45%	14	3.01E-05	13	6.17%	194	4.13E-04	21	3.25%	102	2.17E-04
6	0.85%	27	5.71E-05	14	6.05%	190	4.05E-04	22	3.31%	104	2.22E-04
7	3.73%	117	2.50E-04	15	7.06%	222	4.72E-04	23	2.48%	78	1.66E-04
8	7.77%	244	5.19E-04	16	7.18%	225	4.81E-04	24	1.87%	59	1.25E-04
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	7.60E-05	9	7.12%	223	4.81E-04	17	7.43%	233	5.03E-04
2	0.42%	13	2.81E-05	10	4.38%	138	2.96E-04	18	8.23%	258	5.57E-04
3	0.37%	12	2.51E-05	11	4.65%	146	3.14E-04	19	5.72%	180	3.87E-04
4	0.17%	5	1.15E-05	12	5.89%	185	3.98E-04	20	4.31%	135	2.91E-04
5	0.45%	14	3.05E-05	13	6.17%	194	4.17E-04	21	3.25%	102	2.20E-04
6	0.85%	27	5.77E-05	14	6.05%	190	4.09E-04	22	3.31%	104	2.24E-04
7	3.73%	117	2.52E-04	15	7.06%	222	4.77E-04	23	2.48%	78	1.68E-04
8	7.77%	244	5.25E-04	16	7.18%	225	4.86E-04	24	1.87%	59	1.26E-04
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

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_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	3,139	3,328	35,822	7.67E-08	5.66E-08	2.6	1.21
TEVAP_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	3,139	3,364	36,207	7.67E-08	5.66E-08	2.6	1.21
									Total	6,278						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	30		
Emissions per Vehicle per Hour (g/hour)	1.14876	1.31349		
Emissions per Vehicle per Mile (g/VMT)	0.03282	0.04378		

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	6.89E-05	9	7.12%	223	4.36E-04	17	7.43%	233	4.56E-04
2	0.42%	13	2.55E-05	10	4.38%	138	2.69E-04	18	8.23%	258	5.05E-04
3	0.37%	12	2.28E-05	11	4.65%	146	2.85E-04	19	5.72%	180	3.51E-04
4	0.17%	5	1.05E-05	12	5.89%	185	3.61E-04	20	4.31%	135	2.64E-04
5	0.45%	14	2.76E-05	13	6.17%	194	3.78E-04	21	3.25%	102	1.99E-04
6	0.85%	27	5.23E-05	14	6.05%	190	3.71E-04	22	3.31%	104	2.03E-04
7	3.73%	117	2.29E-04	15	7.06%	222	4.32E-04	23	2.48%	78	1.52E-04
8	7.77%	244	4.76E-04	16	7.18%	225	4.40E-04	24	1.87%	59	1.14E-04
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	6.96E-05	9	7.12%	223	4.41E-04	17	7.43%	233	4.60E-04
2	0.42%	13	2.57E-05	10	4.38%	138	2.72E-04	18	8.23%	258	5.10E-04
3	0.37%	12	2.30E-05	11	4.65%	146	2.88E-04	19	5.72%	180	3.54E-04
4	0.17%	5	1.06E-05	12	5.89%	185	3.65E-04	20	4.31%	135	2.67E-04
5	0.45%	14	2.79E-05	13	6.17%	194	3.82E-04	21	3.25%	102	2.01E-04
6	0.85%	27	5.28E-05	14	6.05%	190	3.75E-04	22	3.31%	104	2.05E-04
7	3.73%	117	2.31E-04	15	7.06%	222	4.37E-04	23	2.48%	78	1.54E-04
8	7.77%	244	4.81E-04	16	7.18%	225	4.45E-04	24	1.87%	59	1.16E-04
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

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
FUG_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	3,139	3,328	35,822	7.90E-08	5.82E-08	2.6	1.21
FUG_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	3,139	3,364	36,207	7.90E-08	5.82E-08	2.6	1.21
									Total	6,278						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	30		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205	0.00205		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01678		
Road Dust - Emissions per Vehicle (g/VMT)	0.01492	0.01469		
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03378	0.03352		

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	35	7.09E-05	9	7.12%	223	4.49E-04	17	7.43%	233	4.69E-04
2	0.42%	13	2.62E-05	10	4.38%	138	2.76E-04	18	8.23%	258	5.19E-04
3	0.37%	12	2.35E-05	11	4.65%	146	2.93E-04	19	5.72%	180	3.61E-04
4	0.17%	5	1.08E-05	12	5.89%	185	3.72E-04	20	4.31%	135	2.71E-04
5	0.45%	14	2.84E-05	13	6.17%	194	3.89E-04	21	3.25%	102	2.05E-04
6	0.85%	27	5.38E-05	14	6.05%	190	3.82E-04	22	3.31%	104	2.09E-04
7	3.73%	117	2.35E-04	15	7.06%	222	4.45E-04	23	2.48%	78	1.56E-04
8	7.77%	244	4.90E-04	16	7.18%	225	4.53E-04	24	1.87%	59	1.18E-04
								Total		3,139	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	35	7.17E-05	9	7.12%	223	4.54E-04	17	7.43%	233	4.74E-04
2	0.42%	13	2.65E-05	10	4.38%	138	2.79E-04	18	8.23%	258	5.25E-04
3	0.37%	12	2.37E-05	11	4.65%	146	2.96E-04	19	5.72%	180	3.65E-04
4	0.17%	5	1.09E-05	12	5.89%	185	3.76E-04	20	4.31%	135	2.74E-04
5	0.45%	14	2.87E-05	13	6.17%	194	3.93E-04	21	3.25%	102	2.07E-04
6	0.85%	27	5.44E-05	14	6.05%	190	3.86E-04	22	3.31%	104	2.11E-04
7	3.73%	117	2.38E-04	15	7.06%	222	4.50E-04	23	2.48%	78	1.58E-04
8	7.77%	244	4.95E-04	16	7.18%	225	4.58E-04	24	1.87%	59	1.19E-04
								Total		3,139	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2027

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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	43.7	3.4	30	7,866	5,626	60,554	9.431E-10	6.954E-10	6.8	3.16
DPM_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	43.7	3.4	30	7,866	5,608	60,368	9.431E-10	6.954E-10	6.8	3.16
									Total	15,731						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00022			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and DPM Emissions - DPM_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	4.02%	316	5.12E-06	9	6.62%	521	8.43E-06	17	6.46%	508	8.23E-06
2	3.38%	266	4.30E-06	10	8.04%	632	1.02E-05	18	3.89%	306	4.95E-06
3	2.57%	202	3.28E-06	11	6.11%	481	7.78E-06	19	2.28%	180	2.91E-06
4	0.96%	76	1.23E-06	12	7.59%	597	9.66E-06	20	0.96%	76	1.23E-06
5	0.96%	76	1.23E-06	13	7.11%	559	9.05E-06	21	2.89%	228	3.68E-06
6	2.25%	177	2.87E-06	14	6.62%	521	8.43E-06	22	4.82%	379	6.14E-06
7	4.50%	354	5.73E-06	15	6.14%	483	7.82E-06	23	3.54%	278	4.50E-06
8	3.25%	255	4.14E-06	16	4.21%	331	5.36E-06	24	0.80%	63	1.02E-06
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	4.02%	316	5.10E-06	9	6.62%	521	8.41E-06	17	6.46%	508	8.20E-06
2	3.38%	266	4.29E-06	10	8.04%	632	1.02E-05	18	3.89%	306	4.94E-06
3	2.57%	202	3.27E-06	11	6.11%	481	7.76E-06	19	2.28%	180	2.90E-06
4	0.96%	76	1.22E-06	12	7.59%	597	9.63E-06	20	0.96%	76	1.22E-06
5	0.96%	76	1.22E-06	13	7.11%	559	9.02E-06	21	2.89%	228	3.67E-06
6	2.25%	177	2.86E-06	14	6.62%	521	8.41E-06	22	4.82%	379	6.12E-06
7	4.50%	354	5.71E-06	15	6.14%	483	7.80E-06	23	3.54%	278	4.49E-06
8	3.25%	255	4.12E-06	16	4.21%	331	5.35E-06	24	0.80%	63	1.02E-06
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2027

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
PM2.5_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	7,866	5,626	60,554	5.88E-09	4.34E-09	2.6	1.21
PM2.5_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	7,866	5,608	60,368	5.88E-09	4.34E-09	2.6	1.21
									Total	15,731						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.001384			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	8.87E-06	9	7.12%	560	5.65E-05	17	7.43%	585	5.90E-05
2	0.41%	32	3.28E-06	10	4.37%	344	3.47E-05	18	8.23%	648	6.54E-05
3	0.37%	29	2.96E-06	11	4.65%	366	3.69E-05	19	5.74%	451	4.55E-05
4	0.18%	14	1.41E-06	12	5.89%	464	4.68E-05	20	4.31%	339	3.42E-05
5	0.46%	36	3.63E-06	13	6.16%	485	4.89E-05	21	3.25%	256	2.58E-05
6	0.85%	67	6.72E-06	14	6.05%	476	4.80E-05	22	3.31%	261	2.63E-05
7	3.73%	293	2.96E-05	15	7.06%	555	5.60E-05	23	2.48%	195	1.97E-05
8	7.76%	611	6.16E-05	16	7.19%	565	5.70E-05	24	1.88%	147	1.49E-05
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	8.85E-06	9	7.12%	560	5.64E-05	17	7.43%	585	5.88E-05
2	0.41%	32	3.27E-06	10	4.37%	344	3.46E-05	18	8.23%	648	6.52E-05
3	0.37%	29	2.95E-06	11	4.65%	366	3.68E-05	19	5.74%	451	4.54E-05
4	0.18%	14	1.41E-06	12	5.89%	464	4.66E-05	20	4.31%	339	3.41E-05
5	0.46%	36	3.62E-06	13	6.16%	485	4.88E-05	21	3.25%	256	2.57E-05
6	0.85%	67	6.70E-06	14	6.05%	476	4.79E-05	22	3.31%	261	2.62E-05
7	3.73%	293	2.95E-05	15	7.06%	555	5.58E-05	23	2.48%	195	1.96E-05
8	7.76%	611	6.14E-05	16	7.19%	565	5.69E-05	24	1.88%	147	1.48E-05
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2027

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_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	7,866	5,626	60,554	1.68E-07	1.24E-07	2.6	1.21
TEXH_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	7,866	5,608	60,368	1.68E-07	1.24E-07	2.6	1.21
									Total	15,731						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.03965			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	2.54E-04	9	7.12%	560	1.62E-03	17	7.43%	585	1.69E-03
2	0.41%	32	9.40E-05	10	4.37%	344	9.95E-04	18	8.23%	648	1.87E-03
3	0.37%	29	8.48E-05	11	4.65%	366	1.06E-03	19	5.74%	451	1.30E-03
4	0.18%	14	4.05E-05	12	5.89%	464	1.34E-03	20	4.31%	339	9.79E-04
5	0.46%	36	1.04E-04	13	6.16%	485	1.40E-03	21	3.25%	256	7.40E-04
6	0.85%	67	1.93E-04	14	6.05%	476	1.38E-03	22	3.31%	261	7.54E-04
7	3.73%	293	8.48E-04	15	7.06%	555	1.60E-03	23	2.48%	195	5.65E-04
8	7.76%	611	1.77E-03	16	7.19%	565	1.63E-03	24	1.88%	147	4.27E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	2.53E-04	9	7.12%	560	1.61E-03	17	7.43%	585	1.69E-03
2	0.41%	32	9.37E-05	10	4.37%	344	9.92E-04	18	8.23%	648	1.87E-03
3	0.37%	29	8.45E-05	11	4.65%	366	1.05E-03	19	5.74%	451	1.30E-03
4	0.18%	14	4.04E-05	12	5.89%	464	1.34E-03	20	4.31%	339	9.76E-04
5	0.46%	36	1.04E-04	13	6.16%	485	1.40E-03	21	3.25%	256	7.37E-04
6	0.85%	67	1.92E-04	14	6.05%	476	1.37E-03	22	3.31%	261	7.51E-04
7	3.73%	293	8.46E-04	15	7.06%	555	1.60E-03	23	2.48%	195	5.63E-04
8	7.76%	611	1.76E-03	16	7.19%	565	1.63E-03	24	1.88%	147	4.25E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2027

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_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	7,866	5,626	60,554	1.48E-07	1.09E-07	2.6	1.21
TEVAP_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	7,866	5,608	60,368	1.48E-07	1.09E-07	2.6	1.21
									Total	15,731						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle per Hour (g/hour)	1.04540			
Emissions per Vehicle per Mile (g/VMT)	0.03485			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	2.23E-04	9	7.12%	560	1.42E-03	17	7.43%	585	1.49E-03
2	0.41%	32	8.26E-05	10	4.37%	344	8.74E-04	18	8.23%	648	1.65E-03
3	0.37%	29	7.45E-05	11	4.65%	366	9.29E-04	19	5.74%	451	1.15E-03
4	0.18%	14	3.56E-05	12	5.89%	464	1.18E-03	20	4.31%	339	8.61E-04
5	0.46%	36	9.15E-05	13	6.16%	485	1.23E-03	21	3.25%	256	6.50E-04
6	0.85%	67	1.69E-04	14	6.05%	476	1.21E-03	22	3.31%	261	6.62E-04
7	3.73%	293	7.46E-04	15	7.06%	555	1.41E-03	23	2.48%	195	4.96E-04
8	7.76%	611	1.55E-03	16	7.19%	565	1.44E-03	24	1.88%	147	3.75E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	2.23E-04	9	7.12%	560	1.42E-03	17	7.43%	585	1.48E-03
2	0.41%	32	8.23E-05	10	4.37%	344	8.72E-04	18	8.23%	648	1.64E-03
3	0.37%	29	7.42E-05	11	4.65%	366	9.26E-04	19	5.74%	451	1.14E-03
4	0.18%	14	3.55E-05	12	5.89%	464	1.17E-03	20	4.31%	339	8.58E-04
5	0.46%	36	9.12E-05	13	6.16%	485	1.23E-03	21	3.25%	256	6.48E-04
6	0.85%	67	1.69E-04	14	6.05%	476	1.20E-03	22	3.31%	261	6.60E-04
7	3.73%	293	7.43E-04	15	7.06%	555	1.41E-03	23	2.48%	195	4.95E-04
8	7.76%	611	1.55E-03	16	7.19%	565	1.43E-03	24	1.88%	147	3.74E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2027**

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
FUG_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	7,866	5,626	60,554	1.44E-07	1.06E-07	2.6	1.21
FUG_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	7,866	5,608	60,368	1.44E-07	1.06E-07	2.6	1.21
									Total	15,731						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00204			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01682			
Road Dust - Emissions per Vehicle (g/VMT)	0.01503			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03389			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	2.17E-04	9	7.12%	560	1.38E-03	17	7.43%	585	1.44E-03
2	0.41%	32	8.03E-05	10	4.37%	344	8.50E-04	18	8.23%	648	1.60E-03
3	0.37%	29	7.24E-05	11	4.65%	366	9.04E-04	19	5.74%	451	1.11E-03
4	0.18%	14	3.46E-05	12	5.89%	464	1.15E-03	20	4.31%	339	8.37E-04
5	0.46%	36	8.90E-05	13	6.16%	485	1.20E-03	21	3.25%	256	6.32E-04
6	0.85%	67	1.65E-04	14	6.05%	476	1.18E-03	22	3.31%	261	6.44E-04
7	3.73%	293	7.25E-04	15	7.06%	555	1.37E-03	23	2.48%	195	4.83E-04
8	7.76%	611	1.51E-03	16	7.19%	565	1.40E-03	24	1.88%	147	3.65E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	2.17E-04	9	7.12%	560	1.38E-03	17	7.43%	585	1.44E-03
2	0.41%	32	8.01E-05	10	4.37%	344	8.48E-04	18	8.23%	648	1.60E-03
3	0.37%	29	7.22E-05	11	4.65%	366	9.01E-04	19	5.74%	451	1.11E-03
4	0.18%	14	3.45E-05	12	5.89%	464	1.14E-03	20	4.31%	339	8.34E-04
5	0.46%	36	8.87E-05	13	6.16%	485	1.19E-03	21	3.25%	256	6.30E-04
6	0.85%	67	1.64E-04	14	6.05%	476	1.17E-03	22	3.31%	261	6.42E-04
7	3.73%	293	7.23E-04	15	7.06%	555	1.37E-03	23	2.48%	195	4.81E-04
8	7.76%	611	1.50E-03	16	7.19%	565	1.39E-03	24	1.88%	147	3.63E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial St
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2027

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	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	31.7	3.4	30	7,866	4,482	48,245	1.406E-09	1.036E-09	6.8	3.16
DPM_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	31.7	3.4	30	7,866	4,490	48,328	1.406E-09	1.036E-09	6.8	3.16
									Total	15,731						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.00024			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and DPM Emissions - DPM_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	4.02%	316	6.08E-06	9	6.62%	521	1.00E-05	17	6.46%	508	9.77E-06
2	3.38%	266	5.11E-06	10	8.04%	632	1.22E-05	18	3.89%	306	5.88E-06
3	2.57%	202	3.89E-06	11	6.11%	481	9.24E-06	19	2.28%	180	3.45E-06
4	0.96%	76	1.46E-06	12	7.59%	597	1.15E-05	20	0.96%	76	1.46E-06
5	0.96%	76	1.46E-06	13	7.11%	559	1.07E-05	21	2.89%	228	4.38E-06
6	2.25%	177	3.40E-06	14	6.62%	521	1.00E-05	22	4.82%	379	7.29E-06
7	4.50%	354	6.81E-06	15	6.14%	483	9.29E-06	23	3.54%	278	5.35E-06
8	3.25%	255	4.91E-06	16	4.21%	331	6.37E-06	24	0.80%	63	1.22E-06
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	4.02%	316	6.09E-06	9	6.62%	521	1.00E-05	17	6.46%	508	9.79E-06
2	3.38%	266	5.11E-06	10	8.04%	632	1.22E-05	18	3.89%	306	5.89E-06
3	2.57%	202	3.90E-06	11	6.11%	481	9.25E-06	19	2.28%	180	3.46E-06
4	0.96%	76	1.46E-06	12	7.59%	597	1.15E-05	20	0.96%	76	1.46E-06
5	0.96%	76	1.46E-06	13	7.11%	559	1.08E-05	21	2.89%	228	4.38E-06
6	2.25%	177	3.41E-06	14	6.62%	521	1.00E-05	22	4.82%	379	7.31E-06
7	4.50%	354	6.82E-06	15	6.14%	483	9.30E-06	23	3.54%	278	5.36E-06
8	3.25%	255	4.92E-06	16	4.21%	331	6.38E-06	24	0.80%	63	1.22E-06
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial St
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2027

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
PM2.5_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	7,866	4,482	48,245	1.01E-08	7.48E-09	2.6	1.21
PM2.5_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	7,866	4,490	48,328	1.01E-08	7.48E-09	2.6	1.21
									Total	15,731						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.001732			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	1.22E-05	9	7.12%	560	7.77E-05	17	7.43%	585	8.11E-05
2	0.41%	32	4.51E-06	10	4.37%	344	4.77E-05	18	8.23%	648	8.99E-05
3	0.37%	29	4.07E-06	11	4.65%	366	5.07E-05	19	5.74%	451	6.26E-05
4	0.18%	14	1.94E-06	12	5.89%	464	6.43E-05	20	4.31%	339	4.70E-05
5	0.46%	36	4.99E-06	13	6.16%	485	6.73E-05	21	3.25%	256	3.55E-05
6	0.85%	67	9.24E-06	14	6.05%	476	6.60E-05	22	3.31%	261	3.62E-05
7	3.73%	293	4.07E-05	15	7.06%	555	7.70E-05	23	2.48%	195	2.71E-05
8	7.76%	611	8.47E-05	16	7.19%	565	7.84E-05	24	1.88%	147	2.05E-05
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	1.22E-05	9	7.12%	560	7.78E-05	17	7.43%	585	8.12E-05
2	0.41%	32	4.52E-06	10	4.37%	344	4.78E-05	18	8.23%	648	9.00E-05
3	0.37%	29	4.07E-06	11	4.65%	366	5.08E-05	19	5.74%	451	6.27E-05
4	0.18%	14	1.95E-06	12	5.89%	464	6.44E-05	20	4.31%	339	4.71E-05
5	0.46%	36	5.00E-06	13	6.16%	485	6.74E-05	21	3.25%	256	3.56E-05
6	0.85%	67	9.25E-06	14	6.05%	476	6.61E-05	22	3.31%	261	3.62E-05
7	3.73%	293	4.08E-05	15	7.06%	555	7.71E-05	23	2.48%	195	2.71E-05
8	7.76%	611	8.49E-05	16	7.19%	565	7.85E-05	24	1.88%	147	2.05E-05
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial St
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2027

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_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	7,866	4,482	48,245	2.90E-07	2.14E-07	2.6	1.21
TEXH_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	7,866	4,490	48,328	2.90E-07	2.14E-07	2.6	1.21
									Total	15,731						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.04955			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	3.49E-04	9	7.12%	560	2.22E-03	17	7.43%	585	2.32E-03
2	0.41%	32	1.29E-04	10	4.37%	344	1.37E-03	18	8.23%	648	2.57E-03
3	0.37%	29	1.16E-04	11	4.65%	366	1.45E-03	19	5.74%	451	1.79E-03
4	0.18%	14	5.56E-05	12	5.89%	464	1.84E-03	20	4.31%	339	1.34E-03
5	0.46%	36	1.43E-04	13	6.16%	485	1.92E-03	21	3.25%	256	1.02E-03
6	0.85%	67	2.64E-04	14	6.05%	476	1.89E-03	22	3.31%	261	1.03E-03
7	3.73%	293	1.16E-03	15	7.06%	555	2.20E-03	23	2.48%	195	7.75E-04
8	7.76%	611	2.42E-03	16	7.19%	565	2.24E-03	24	1.88%	147	5.85E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	3.50E-04	9	7.12%	560	2.23E-03	17	7.43%	585	2.32E-03
2	0.41%	32	1.29E-04	10	4.37%	344	1.37E-03	18	8.23%	648	2.57E-03
3	0.37%	29	1.17E-04	11	4.65%	366	1.45E-03	19	5.74%	451	1.79E-03
4	0.18%	14	5.57E-05	12	5.89%	464	1.84E-03	20	4.31%	339	1.35E-03
5	0.46%	36	1.43E-04	13	6.16%	485	1.93E-03	21	3.25%	256	1.02E-03
6	0.85%	67	2.65E-04	14	6.05%	476	1.89E-03	22	3.31%	261	1.04E-03
7	3.73%	293	1.17E-03	15	7.06%	555	2.21E-03	23	2.48%	195	7.76E-04
8	7.76%	611	2.43E-03	16	7.19%	565	2.25E-03	24	1.88%	147	5.86E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial St
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2027

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_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	7,866	4,482	48,245	2.45E-07	1.81E-07	2.6	1.21
TEVAP_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	7,866	4,490	48,328	2.45E-07	1.81E-07	2.6	1.21
									Total	15,731						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle per Hour (g/hour)	1.04540			
Emissions per Vehicle per Mile (g/VMT)	0.04182			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	2.95E-04	9	7.12%	560	1.88E-03	17	7.43%	585	1.96E-03
2	0.41%	32	1.09E-04	10	4.37%	344	1.15E-03	18	8.23%	648	2.17E-03
3	0.37%	29	9.82E-05	11	4.65%	366	1.23E-03	19	5.74%	451	1.51E-03
4	0.18%	14	4.70E-05	12	5.89%	464	1.55E-03	20	4.31%	339	1.13E-03
5	0.46%	36	1.21E-04	13	6.16%	485	1.62E-03	21	3.25%	256	8.57E-04
6	0.85%	67	2.23E-04	14	6.05%	476	1.59E-03	22	3.31%	261	8.73E-04
7	3.73%	293	9.83E-04	15	7.06%	555	1.86E-03	23	2.48%	195	6.54E-04
8	7.76%	611	2.05E-03	16	7.19%	565	1.89E-03	24	1.88%	147	4.94E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	2.95E-04	9	7.12%	560	1.88E-03	17	7.43%	585	1.96E-03
2	0.41%	32	1.09E-04	10	4.37%	344	1.15E-03	18	8.23%	648	2.17E-03
3	0.37%	29	9.83E-05	11	4.65%	366	1.23E-03	19	5.74%	451	1.51E-03
4	0.18%	14	4.70E-05	12	5.89%	464	1.56E-03	20	4.31%	339	1.14E-03
5	0.46%	36	1.21E-04	13	6.16%	485	1.63E-03	21	3.25%	256	8.58E-04
6	0.85%	67	2.23E-04	14	6.05%	476	1.60E-03	22	3.31%	261	8.74E-04
7	3.73%	293	9.84E-04	15	7.06%	555	1.86E-03	23	2.48%	195	6.55E-04
8	7.76%	611	2.05E-03	16	7.19%	565	1.90E-03	24	1.88%	147	4.95E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial St
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2027

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
FUG_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	7,866	4,482	48,245	1.99E-07	1.46E-07	2.6	1.21
FUG_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	7,866	4,490	48,328	1.99E-07	1.46E-07	2.6	1.21
									Total	15,731						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00204			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01682			
Road Dust - Emissions per Vehicle (g/VMT)	0.01503			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03389			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	2.39E-04	9	7.12%	560	1.52E-03	17	7.43%	585	1.59E-03
2	0.41%	32	8.82E-05	10	4.37%	344	9.34E-04	18	8.23%	648	1.76E-03
3	0.37%	29	7.96E-05	11	4.65%	366	9.93E-04	19	5.74%	451	1.22E-03
4	0.18%	14	3.81E-05	12	5.89%	464	1.26E-03	20	4.31%	339	9.19E-04
5	0.46%	36	9.77E-05	13	6.16%	485	1.32E-03	21	3.25%	256	6.95E-04
6	0.85%	67	1.81E-04	14	6.05%	476	1.29E-03	22	3.31%	261	7.08E-04
7	3.73%	293	7.97E-04	15	7.06%	555	1.51E-03	23	2.48%	195	5.30E-04
8	7.76%	611	1.66E-03	16	7.19%	565	1.53E-03	24	1.88%	147	4.00E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	2.39E-04	9	7.12%	560	1.52E-03	17	7.43%	585	1.59E-03
2	0.41%	32	8.84E-05	10	4.37%	344	9.36E-04	18	8.23%	648	1.76E-03
3	0.37%	29	7.97E-05	11	4.65%	366	9.95E-04	19	5.74%	451	1.23E-03
4	0.18%	14	3.81E-05	12	5.89%	464	1.26E-03	20	4.31%	339	9.21E-04
5	0.46%	36	9.79E-05	13	6.16%	485	1.32E-03	21	3.25%	256	6.96E-04
6	0.85%	67	1.81E-04	14	6.05%	476	1.29E-03	22	3.31%	261	7.09E-04
7	3.73%	293	7.98E-04	15	7.06%	555	1.51E-03	23	2.48%	195	5.31E-04
8	7.76%	611	1.66E-03	16	7.19%	565	1.54E-03	24	1.88%	147	4.01E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = **2027**

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)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	31.7	3.4	35	7,866	3,328	35,822	1.271E-09	9.372E-10	6.8	3.16
DPM_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	31.7	3.4	35	7,866	3,364	36,207	1.271E-09	9.372E-10	6.8	3.16
									Total	15,731						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00022			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and DPM Emissions - DPM_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	4.02%	316	4.08E-06	9	6.62%	521	6.72E-06	17	6.46%	508	6.56E-06
2	3.38%	266	3.43E-06	10	8.04%	632	8.16E-06	18	3.89%	306	3.95E-06
3	2.57%	202	2.61E-06	11	6.11%	481	6.20E-06	19	2.28%	180	2.32E-06
4	0.96%	76	9.79E-07	12	7.59%	597	7.70E-06	20	0.96%	76	9.79E-07
5	0.96%	76	9.79E-07	13	7.11%	559	7.21E-06	21	2.89%	228	2.94E-06
6	2.25%	177	2.29E-06	14	6.62%	521	6.72E-06	22	4.82%	379	4.90E-06
7	4.50%	354	4.57E-06	15	6.14%	483	6.23E-06	23	3.54%	278	3.59E-06
8	3.25%	255	3.30E-06	16	4.21%	331	4.28E-06	24	0.80%	63	8.16E-07
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	4.02%	316	4.12E-06	9	6.62%	521	6.80E-06	17	6.46%	508	6.63E-06
2	3.38%	266	3.46E-06	10	8.04%	632	8.25E-06	18	3.89%	306	3.99E-06
3	2.57%	202	2.64E-06	11	6.11%	481	6.27E-06	19	2.28%	180	2.34E-06
4	0.96%	76	9.90E-07	12	7.59%	597	7.79E-06	20	0.96%	76	9.90E-07
5	0.96%	76	9.90E-07	13	7.11%	559	7.29E-06	21	2.89%	228	2.97E-06
6	2.25%	177	2.31E-06	14	6.62%	521	6.80E-06	22	4.82%	379	4.95E-06
7	4.50%	354	4.62E-06	15	6.14%	483	6.30E-06	23	3.54%	278	3.63E-06
8	3.25%	255	3.33E-06	16	4.21%	331	4.32E-06	24	0.80%	63	8.25E-07
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2027

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
PM2.5_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	7,866	3,328	35,822	6.86E-09	5.06E-09	2.6	1.21
PM2.5_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	7,866	3,364	36,207	6.86E-09	5.06E-09	2.6	1.21
									Total	15,731						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001172			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	6.13E-06	9	7.12%	560	3.90E-05	17	7.43%	585	4.08E-05
2	0.41%	32	2.27E-06	10	4.37%	344	2.40E-05	18	8.23%	648	4.51E-05
3	0.37%	29	2.04E-06	11	4.65%	366	2.55E-05	19	5.74%	451	3.14E-05
4	0.18%	14	9.77E-07	12	5.89%	464	3.23E-05	20	4.31%	339	2.36E-05
5	0.46%	36	2.51E-06	13	6.16%	485	3.38E-05	21	3.25%	256	1.78E-05
6	0.85%	67	4.64E-06	14	6.05%	476	3.32E-05	22	3.31%	261	1.82E-05
7	3.73%	293	2.05E-05	15	7.06%	555	3.87E-05	23	2.48%	195	1.36E-05
8	7.76%	611	4.26E-05	16	7.19%	565	3.94E-05	24	1.88%	147	1.03E-05
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	6.20E-06	9	7.12%	560	3.95E-05	17	7.43%	585	4.12E-05
2	0.41%	32	2.29E-06	10	4.37%	344	2.42E-05	18	8.23%	648	4.56E-05
3	0.37%	29	2.07E-06	11	4.65%	366	2.58E-05	19	5.74%	451	3.18E-05
4	0.18%	14	9.88E-07	12	5.89%	464	3.27E-05	20	4.31%	339	2.39E-05
5	0.46%	36	2.54E-06	13	6.16%	485	3.42E-05	21	3.25%	256	1.80E-05
6	0.85%	67	4.69E-06	14	6.05%	476	3.35E-05	22	3.31%	261	1.84E-05
7	3.73%	293	2.07E-05	15	7.06%	555	3.91E-05	23	2.48%	195	1.38E-05
8	7.76%	611	4.30E-05	16	7.19%	565	3.98E-05	24	1.88%	147	1.04E-05
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2027

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_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	7,866	3,328	35,822	1.95E-07	1.44E-07	2.6	1.21
TEXH_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	7,866	3,364	36,207	1.95E-07	1.44E-07	2.6	1.21
									Total	15,731						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.03335			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	1.74E-04	9	7.12%	560	1.11E-03	17	7.43%	585	1.16E-03
2	0.41%	32	6.45E-05	10	4.37%	344	6.82E-04	18	8.23%	648	1.28E-03
3	0.37%	29	5.81E-05	11	4.65%	366	7.25E-04	19	5.74%	451	8.95E-04
4	0.18%	14	2.78E-05	12	5.89%	464	9.19E-04	20	4.31%	339	6.72E-04
5	0.46%	36	7.14E-05	13	6.16%	485	9.62E-04	21	3.25%	256	5.07E-04
6	0.85%	67	1.32E-04	14	6.05%	476	9.43E-04	22	3.31%	261	5.17E-04
7	3.73%	293	5.82E-04	15	7.06%	555	1.10E-03	23	2.48%	195	3.87E-04
8	7.76%	611	1.21E-03	16	7.19%	565	1.12E-03	24	1.88%	147	2.93E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	1.76E-04	9	7.12%	560	1.12E-03	17	7.43%	585	1.17E-03
2	0.41%	32	6.51E-05	10	4.37%	344	6.90E-04	18	8.23%	648	1.30E-03
3	0.37%	29	5.88E-05	11	4.65%	366	7.33E-04	19	5.74%	451	9.04E-04
4	0.18%	14	2.81E-05	12	5.89%	464	9.29E-04	20	4.31%	339	6.79E-04
5	0.46%	36	7.22E-05	13	6.16%	485	9.72E-04	21	3.25%	256	5.13E-04
6	0.85%	67	1.33E-04	14	6.05%	476	9.54E-04	22	3.31%	261	5.22E-04
7	3.73%	293	5.88E-04	15	7.06%	555	1.11E-03	23	2.48%	195	3.92E-04
8	7.76%	611	1.22E-03	16	7.19%	565	1.13E-03	24	1.88%	147	2.96E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2027

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_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	7,866	3,328	35,822	1.75E-07	1.29E-07	2.6	1.21
TEVAP_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	7,866	3,364	36,207	1.75E-07	1.29E-07	2.6	1.21
									Total	15,731						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.04540			
Emissions per Vehicle per Mile (g/VMT)	0.02987			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	1.56E-04	9	7.12%	560	9.95E-04	17	7.43%	585	1.04E-03
2	0.41%	32	5.77E-05	10	4.37%	344	6.11E-04	18	8.23%	648	1.15E-03
3	0.37%	29	5.21E-05	11	4.65%	366	6.50E-04	19	5.74%	451	8.01E-04
4	0.18%	14	2.49E-05	12	5.89%	464	8.23E-04	20	4.31%	339	6.02E-04
5	0.46%	36	6.40E-05	13	6.16%	485	8.61E-04	21	3.25%	256	4.54E-04
6	0.85%	67	1.18E-04	14	6.05%	476	8.45E-04	22	3.31%	261	4.63E-04
7	3.73%	293	5.21E-04	15	7.06%	555	9.86E-04	23	2.48%	195	3.47E-04
8	7.76%	611	1.08E-03	16	7.19%	565	1.00E-03	24	1.88%	147	2.62E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	1.58E-04	9	7.12%	560	1.01E-03	17	7.43%	585	1.05E-03
2	0.41%	32	5.83E-05	10	4.37%	344	6.18E-04	18	8.23%	648	1.16E-03
3	0.37%	29	5.26E-05	11	4.65%	366	6.57E-04	19	5.74%	451	8.10E-04
4	0.18%	14	2.52E-05	12	5.89%	464	8.32E-04	20	4.31%	339	6.08E-04
5	0.46%	36	6.46E-05	13	6.16%	485	8.71E-04	21	3.25%	256	4.59E-04
6	0.85%	67	1.20E-04	14	6.05%	476	8.54E-04	22	3.31%	261	4.68E-04
7	3.73%	293	5.27E-04	15	7.06%	555	9.96E-04	23	2.48%	195	3.51E-04
8	7.76%	611	1.10E-03	16	7.19%	565	1.01E-03	24	1.88%	147	2.65E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2027**

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
FUG_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	7,866	3,328	35,822	1.99E-07	1.46E-07	2.6	1.21
FUG_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	7,866	3,364	36,207	1.99E-07	1.46E-07	2.6	1.21
									Total	15,731						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00204			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01682			
Road Dust - Emissions per Vehicle (g/VMT)	0.01503			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03389			

Emisson Factors from CT-EMFAC2017

2027 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	88	1.77E-04	9	7.12%	560	1.13E-03	17	7.43%	585	1.18E-03
2	0.41%	32	6.55E-05	10	4.37%	344	6.94E-04	18	8.23%	648	1.31E-03
3	0.37%	29	5.91E-05	11	4.65%	366	7.37E-04	19	5.74%	451	9.09E-04
4	0.18%	14	2.83E-05	12	5.89%	464	9.34E-04	20	4.31%	339	6.83E-04
5	0.46%	36	7.26E-05	13	6.16%	485	9.77E-04	21	3.25%	256	5.16E-04
6	0.85%	67	1.34E-04	14	6.05%	476	9.59E-04	22	3.31%	261	5.25E-04
7	3.73%	293	5.91E-04	15	7.06%	555	1.12E-03	23	2.48%	195	3.94E-04
8	7.76%	611	1.23E-03	16	7.19%	565	1.14E-03	24	1.88%	147	2.97E-04
								Total		7,866	

2027 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	88	1.79E-04	9	7.12%	560	1.14E-03	17	7.43%	585	1.19E-03
2	0.41%	32	6.62E-05	10	4.37%	344	7.01E-04	18	8.23%	648	1.32E-03
3	0.37%	29	5.97E-05	11	4.65%	366	7.45E-04	19	5.74%	451	9.19E-04
4	0.18%	14	2.86E-05	12	5.89%	464	9.44E-04	20	4.31%	339	6.90E-04
5	0.46%	36	7.34E-05	13	6.16%	485	9.88E-04	21	3.25%	256	5.21E-04
6	0.85%	67	1.36E-04	14	6.05%	476	9.69E-04	22	3.31%	261	5.31E-04
7	3.73%	293	5.98E-04	15	7.06%	555	1.13E-03	23	2.48%	195	3.98E-04
8	7.76%	611	1.24E-03	16	7.19%	565	1.15E-03	24	1.88%	147	3.01E-04
								Total		7,866	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2029

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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	43.7	3.4	30	11,736	5,626	60,554	1.521E-09	1.122E-09	6.8	3.16
DPM_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	43.7	3.4	30	11,736	5,608	60,368	1.521E-09	1.122E-09	6.8	3.16
									Total	23,472						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00024			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and DPM Emissions - DPM_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.97%	466	8.16E-06	9	6.70%	787	1.38E-05	17	6.54%	768	1.34E-05
2	3.50%	410	7.18E-06	10	8.11%	952	1.67E-05	18	4.00%	470	8.22E-06
3	2.54%	299	5.22E-06	11	6.20%	728	1.27E-05	19	2.07%	243	4.25E-06
4	0.95%	112	1.96E-06	12	7.47%	877	1.53E-05	20	0.95%	112	1.96E-06
5	0.95%	112	1.96E-06	13	7.00%	821	1.44E-05	21	3.02%	355	6.20E-06
6	2.23%	261	4.57E-06	14	6.36%	746	1.31E-05	22	4.93%	578	1.01E-05
7	4.61%	541	9.47E-06	15	6.07%	712	1.25E-05	23	3.50%	410	7.18E-06
8	3.21%	376	6.59E-06	16	4.32%	507	8.87E-06	24	0.79%	93	1.63E-06
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.97%	466	8.14E-06	9	6.70%	787	1.37E-05	17	6.54%	768	1.34E-05
2	3.50%	410	7.16E-06	10	8.11%	952	1.66E-05	18	4.00%	470	8.19E-06
3	2.54%	299	5.21E-06	11	6.20%	728	1.27E-05	19	2.07%	243	4.23E-06
4	0.95%	112	1.95E-06	12	7.47%	877	1.53E-05	20	0.95%	112	1.95E-06
5	0.95%	112	1.95E-06	13	7.00%	821	1.43E-05	21	3.02%	355	6.19E-06
6	2.23%	261	4.56E-06	14	6.36%	746	1.30E-05	22	4.93%	578	1.01E-05
7	4.61%	541	9.44E-06	15	6.07%	712	1.24E-05	23	3.50%	410	7.16E-06
8	3.21%	376	6.57E-06	16	4.32%	507	8.84E-06	24	0.79%	93	1.63E-06
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

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
PM2.5_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	11,736	5,626	60,554	7.72E-09	5.69E-09	2.6	1.21
PM2.5_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	11,736	5,608	60,368	7.72E-09	5.69E-09	2.6	1.21
									Total	23,472						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.001218			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	1.17E-05	9	7.12%	836	7.42E-05	17	7.43%	872	7.75E-05
2	0.42%	49	4.37E-06	10	4.37%	513	4.56E-05	18	8.23%	966	8.58E-05
3	0.37%	44	3.88E-06	11	4.65%	546	4.85E-05	19	5.73%	672	5.97E-05
4	0.17%	20	1.81E-06	12	5.90%	692	6.15E-05	20	4.31%	505	4.49E-05
5	0.46%	53	4.74E-06	13	6.17%	724	6.43E-05	21	3.26%	382	3.39E-05
6	0.84%	99	8.79E-06	14	6.05%	710	6.31E-05	22	3.32%	389	3.46E-05
7	3.73%	438	3.89E-05	15	7.06%	828	7.35E-05	23	2.48%	291	2.59E-05
8	7.76%	911	8.09E-05	16	7.18%	843	7.49E-05	24	1.87%	220	1.95E-05
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	1.17E-05	9	7.12%	836	7.40E-05	17	7.43%	872	7.72E-05
2	0.42%	49	4.36E-06	10	4.37%	513	4.54E-05	18	8.23%	966	8.55E-05
3	0.37%	44	3.87E-06	11	4.65%	546	4.83E-05	19	5.73%	672	5.95E-05
4	0.17%	20	1.81E-06	12	5.90%	692	6.13E-05	20	4.31%	505	4.47E-05
5	0.46%	53	4.73E-06	13	6.17%	724	6.41E-05	21	3.26%	382	3.38E-05
6	0.84%	99	8.76E-06	14	6.05%	710	6.29E-05	22	3.32%	389	3.45E-05
7	3.73%	438	3.88E-05	15	7.06%	828	7.33E-05	23	2.48%	291	2.58E-05
8	7.76%	911	8.07E-05	16	7.18%	843	7.46E-05	24	1.87%	220	1.95E-05
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2029

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_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	11,736	5,626	60,554	1.13E-07	8.31E-08	2.6	1.21
TEXH_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	11,736	5,608	60,368	1.13E-07	8.31E-08	2.6	1.21
									Total	23,472						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.01778			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	1.71E-04	9	7.12%	836	1.08E-03	17	7.43%	872	1.13E-03
2	0.42%	49	6.38E-05	10	4.37%	513	6.65E-04	18	8.23%	966	1.25E-03
3	0.37%	44	5.66E-05	11	4.65%	546	7.07E-04	19	5.73%	672	8.72E-04
4	0.17%	20	2.65E-05	12	5.90%	692	8.97E-04	20	4.31%	505	6.55E-04
5	0.46%	53	6.92E-05	13	6.17%	724	9.39E-04	21	3.26%	382	4.96E-04
6	0.84%	99	1.28E-04	14	6.05%	710	9.21E-04	22	3.32%	389	5.05E-04
7	3.73%	438	5.68E-04	15	7.06%	828	1.07E-03	23	2.48%	291	3.78E-04
8	7.76%	911	1.18E-03	16	7.18%	843	1.09E-03	24	1.87%	220	2.85E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	1.70E-04	9	7.12%	836	1.08E-03	17	7.43%	872	1.13E-03
2	0.42%	49	6.36E-05	10	4.37%	513	6.63E-04	18	8.23%	966	1.25E-03
3	0.37%	44	5.64E-05	11	4.65%	546	7.05E-04	19	5.73%	672	8.69E-04
4	0.17%	20	2.64E-05	12	5.90%	692	8.94E-04	20	4.31%	505	6.53E-04
5	0.46%	53	6.90E-05	13	6.17%	724	9.36E-04	21	3.26%	382	4.94E-04
6	0.84%	99	1.28E-04	14	6.05%	710	9.18E-04	22	3.32%	389	5.03E-04
7	3.73%	438	5.66E-04	15	7.06%	828	1.07E-03	23	2.48%	291	3.76E-04
8	7.76%	911	1.18E-03	16	7.18%	843	1.09E-03	24	1.87%	220	2.84E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2029

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_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	11,736	5,626	60,554	1.57E-07	1.15E-07	2.6	1.21
TEVAP_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	11,736	5,608	60,368	1.57E-07	1.15E-07	2.6	1.21
									Total	23,472						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle per Hour (g/hour)	0.74130			
Emissions per Vehicle per Mile (g/VMT)	0.02471			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	2.38E-04	9	7.12%	836	1.51E-03	17	7.43%	872	1.57E-03
2	0.42%	49	8.87E-05	10	4.37%	513	9.25E-04	18	8.23%	966	1.74E-03
3	0.37%	44	7.87E-05	11	4.65%	546	9.83E-04	19	5.73%	672	1.21E-03
4	0.17%	20	3.68E-05	12	5.90%	692	1.25E-03	20	4.31%	505	9.10E-04
5	0.46%	53	9.62E-05	13	6.17%	724	1.30E-03	21	3.26%	382	6.89E-04
6	0.84%	99	1.78E-04	14	6.05%	710	1.28E-03	22	3.32%	389	7.01E-04
7	3.73%	438	7.89E-04	15	7.06%	828	1.49E-03	23	2.48%	291	5.25E-04
8	7.76%	911	1.64E-03	16	7.18%	843	1.52E-03	24	1.87%	220	3.96E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	2.37E-04	9	7.12%	836	1.50E-03	17	7.43%	872	1.57E-03
2	0.42%	49	8.84E-05	10	4.37%	513	9.22E-04	18	8.23%	966	1.74E-03
3	0.37%	44	7.84E-05	11	4.65%	546	9.80E-04	19	5.73%	672	1.21E-03
4	0.17%	20	3.67E-05	12	5.90%	692	1.24E-03	20	4.31%	505	9.08E-04
5	0.46%	53	9.59E-05	13	6.17%	724	1.30E-03	21	3.26%	382	6.87E-04
6	0.84%	99	1.78E-04	14	6.05%	710	1.28E-03	22	3.32%	389	6.99E-04
7	3.73%	438	7.87E-04	15	7.06%	828	1.49E-03	23	2.48%	291	5.23E-04
8	7.76%	911	1.64E-03	16	7.18%	843	1.51E-03	24	1.87%	220	3.95E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Brittan Ave
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2029**

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
FUG_NB_BRT	Brittan Ave Northbound	NB	2	422.5	0.26	13.3	44	1.3	30	11,736	5,626	60,554	1.46E-07	1.08E-07	2.6	1.21
FUG_SB_BRT	Brittan Ave Southbound	SB	2	421.2	0.26	13.3	44	1.3	30	11,736	5,608	60,368	1.46E-07	1.08E-07	2.6	1.21
									Total	23,472						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00533			
Road Dust - Emissions per Vehicle (g/VMT)	0.01569			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02306			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	2.22E-04	9	7.12%	836	1.41E-03	17	7.43%	872	1.47E-03
2	0.42%	49	8.28E-05	10	4.37%	513	8.63E-04	18	8.23%	966	1.62E-03
3	0.37%	44	7.34E-05	11	4.65%	546	9.18E-04	19	5.73%	672	1.13E-03
4	0.17%	20	3.44E-05	12	5.90%	692	1.16E-03	20	4.31%	505	8.50E-04
5	0.46%	53	8.98E-05	13	6.17%	724	1.22E-03	21	3.26%	382	6.43E-04
6	0.84%	99	1.66E-04	14	6.05%	710	1.19E-03	22	3.32%	389	6.54E-04
7	3.73%	438	7.36E-04	15	7.06%	828	1.39E-03	23	2.48%	291	4.90E-04
8	7.76%	911	1.53E-03	16	7.18%	843	1.42E-03	24	1.87%	220	3.69E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	2.21E-04	9	7.12%	836	1.40E-03	17	7.43%	872	1.46E-03
2	0.42%	49	8.25E-05	10	4.37%	513	8.60E-04	18	8.23%	966	1.62E-03
3	0.37%	44	7.32E-05	11	4.65%	546	9.15E-04	19	5.73%	672	1.13E-03
4	0.17%	20	3.43E-05	12	5.90%	692	1.16E-03	20	4.31%	505	8.47E-04
5	0.46%	53	8.95E-05	13	6.17%	724	1.21E-03	21	3.26%	382	6.41E-04
6	0.84%	99	1.66E-04	14	6.05%	710	1.19E-03	22	3.32%	389	6.52E-04
7	3.73%	438	7.34E-04	15	7.06%	828	1.39E-03	23	2.48%	291	4.88E-04
8	7.76%	911	1.53E-03	16	7.18%	843	1.41E-03	24	1.87%	220	3.68E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial Street
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2029

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	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	31.7	3.4	30	11,736	4,482	48,245	2.412E-09	1.779E-09	6.8	3.16
DPM_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	31.7	3.4	30	11,736	4,490	48,328	2.412E-09	1.779E-09	6.8	3.16
									Total	23,472						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.00028			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and DPM Emissions - DPM_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.97%	466	1.03E-05	9	6.70%	787	1.74E-05	17	6.54%	768	1.70E-05
2	3.50%	410	9.08E-06	10	8.11%	952	2.10E-05	18	4.00%	470	1.04E-05
3	2.54%	299	6.60E-06	11	6.20%	728	1.61E-05	19	2.07%	243	5.36E-06
4	0.95%	112	2.48E-06	12	7.47%	877	1.94E-05	20	0.95%	112	2.48E-06
5	0.95%	112	2.48E-06	13	7.00%	821	1.82E-05	21	3.02%	355	7.84E-06
6	2.23%	261	5.78E-06	14	6.36%	746	1.65E-05	22	4.93%	578	1.28E-05
7	4.61%	541	1.20E-05	15	6.07%	712	1.57E-05	23	3.50%	410	9.08E-06
8	3.21%	376	8.32E-06	16	4.32%	507	1.12E-05	24	0.79%	93	2.06E-06
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.97%	466	1.03E-05	9	6.70%	787	1.74E-05	17	6.54%	768	1.70E-05
2	3.50%	410	9.09E-06	10	8.11%	952	2.11E-05	18	4.00%	470	1.04E-05
3	2.54%	299	6.61E-06	11	6.20%	728	1.61E-05	19	2.07%	243	5.37E-06
4	0.95%	112	2.48E-06	12	7.47%	877	1.94E-05	20	0.95%	112	2.48E-06
5	0.95%	112	2.48E-06	13	7.00%	821	1.82E-05	21	3.02%	355	7.85E-06
6	2.23%	261	5.79E-06	14	6.36%	746	1.65E-05	22	4.93%	578	1.28E-05
7	4.61%	541	1.20E-05	15	6.07%	712	1.58E-05	23	3.50%	410	9.09E-06
8	3.21%	376	8.33E-06	16	4.32%	507	1.12E-05	24	0.79%	93	2.07E-06
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial Street
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

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
PM2.5_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	11,736	4,482	48,245	1.34E-08	9.86E-09	2.6	1.21
PM2.5_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	11,736	4,490	48,328	1.34E-08	9.86E-09	2.6	1.21
									Total	23,472						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.001530			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	1.62E-05	9	7.12%	836	1.02E-04	17	7.43%	872	1.07E-04
2	0.42%	49	6.03E-06	10	4.37%	513	6.29E-05	18	8.23%	966	1.18E-04
3	0.37%	44	5.35E-06	11	4.65%	546	6.69E-05	19	5.73%	672	8.24E-05
4	0.17%	20	2.50E-06	12	5.90%	692	8.48E-05	20	4.31%	505	6.19E-05
5	0.46%	53	6.55E-06	13	6.17%	724	8.87E-05	21	3.26%	382	4.68E-05
6	0.84%	99	1.21E-05	14	6.05%	710	8.70E-05	22	3.32%	389	4.77E-05
7	3.73%	438	5.37E-05	15	7.06%	828	1.01E-04	23	2.48%	291	3.57E-05
8	7.76%	911	1.12E-04	16	7.18%	843	1.03E-04	24	1.87%	220	2.69E-05
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	1.62E-05	9	7.12%	836	1.03E-04	17	7.43%	872	1.07E-04
2	0.42%	49	6.04E-06	10	4.37%	513	6.30E-05	18	8.23%	966	1.19E-04
3	0.37%	44	5.36E-06	11	4.65%	546	6.70E-05	19	5.73%	672	8.26E-05
4	0.17%	20	2.51E-06	12	5.90%	692	8.50E-05	20	4.31%	505	6.20E-05
5	0.46%	53	6.56E-06	13	6.17%	724	8.89E-05	21	3.26%	382	4.69E-05
6	0.84%	99	1.21E-05	14	6.05%	710	8.72E-05	22	3.32%	389	4.78E-05
7	3.73%	438	5.38E-05	15	7.06%	828	1.02E-04	23	2.48%	291	3.57E-05
8	7.76%	911	1.12E-04	16	7.18%	843	1.03E-04	24	1.87%	220	2.70E-05
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial Street
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2029

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_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	11,736	4,482	48,245	1.94E-07	1.43E-07	2.6	1.21
TEXH_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	11,736	4,490	48,328	1.94E-07	1.43E-07	2.6	1.21
									Total	23,472						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.02219			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	2.34E-04	9	7.12%	836	1.49E-03	17	7.43%	872	1.55E-03
2	0.42%	49	8.75E-05	10	4.37%	513	9.12E-04	18	8.23%	966	1.72E-03
3	0.37%	44	7.76E-05	11	4.65%	546	9.70E-04	19	5.73%	672	1.20E-03
4	0.17%	20	3.63E-05	12	5.90%	692	1.23E-03	20	4.31%	505	8.98E-04
5	0.46%	53	9.49E-05	13	6.17%	724	1.29E-03	21	3.26%	382	6.79E-04
6	0.84%	99	1.76E-04	14	6.05%	710	1.26E-03	22	3.32%	389	6.92E-04
7	3.73%	438	7.78E-04	15	7.06%	828	1.47E-03	23	2.48%	291	5.17E-04
8	7.76%	911	1.62E-03	16	7.18%	843	1.50E-03	24	1.87%	220	3.90E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	2.35E-04	9	7.12%	836	1.49E-03	17	7.43%	872	1.55E-03
2	0.42%	49	8.76E-05	10	4.37%	513	9.14E-04	18	8.23%	966	1.72E-03
3	0.37%	44	7.77E-05	11	4.65%	546	9.71E-04	19	5.73%	672	1.20E-03
4	0.17%	20	3.64E-05	12	5.90%	692	1.23E-03	20	4.31%	505	8.99E-04
5	0.46%	53	9.51E-05	13	6.17%	724	1.29E-03	21	3.26%	382	6.80E-04
6	0.84%	99	1.76E-04	14	6.05%	710	1.26E-03	22	3.32%	389	6.93E-04
7	3.73%	438	7.80E-04	15	7.06%	828	1.47E-03	23	2.48%	291	5.18E-04
8	7.76%	911	1.62E-03	16	7.18%	843	1.50E-03	24	1.87%	220	3.91E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial Street
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2029

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_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	11,736	4,482	48,245	2.59E-07	1.91E-07	2.6	1.21
TEVAP_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	11,736	4,490	48,328	2.59E-07	1.91E-07	2.6	1.21
									Total	23,472						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle per Hour (g/hour)	0.74130			
Emissions per Vehicle per Mile (g/VMT)	0.02965			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	3.13E-04	9	7.12%	836	1.99E-03	17	7.43%	872	2.07E-03
2	0.42%	49	1.17E-04	10	4.37%	513	1.22E-03	18	8.23%	966	2.29E-03
3	0.37%	44	1.04E-04	11	4.65%	546	1.30E-03	19	5.73%	672	1.60E-03
4	0.17%	20	4.85E-05	12	5.90%	692	1.64E-03	20	4.31%	505	1.20E-03
5	0.46%	53	1.27E-04	13	6.17%	724	1.72E-03	21	3.26%	382	9.08E-04
6	0.84%	99	2.35E-04	14	6.05%	710	1.69E-03	22	3.32%	389	9.24E-04
7	3.73%	438	1.04E-03	15	7.06%	828	1.97E-03	23	2.48%	291	6.92E-04
8	7.76%	911	2.16E-03	16	7.18%	843	2.00E-03	24	1.87%	220	5.22E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	3.14E-04	9	7.12%	836	1.99E-03	17	7.43%	872	2.08E-03
2	0.42%	49	1.17E-04	10	4.37%	513	1.22E-03	18	8.23%	966	2.30E-03
3	0.37%	44	1.04E-04	11	4.65%	546	1.30E-03	19	5.73%	672	1.60E-03
4	0.17%	20	4.86E-05	12	5.90%	692	1.65E-03	20	4.31%	505	1.20E-03
5	0.46%	53	1.27E-04	13	6.17%	724	1.72E-03	21	3.26%	382	9.09E-04
6	0.84%	99	2.35E-04	14	6.05%	710	1.69E-03	22	3.32%	389	9.26E-04
7	3.73%	438	1.04E-03	15	7.06%	828	1.97E-03	23	2.48%	291	6.93E-04
8	7.76%	911	2.17E-03	16	7.18%	843	2.01E-03	24	1.87%	220	5.23E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Commercial Street
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2029

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
FUG_NB_COM	Commercial St Northbound	NB	1	464.1	0.29	9.7	32	1.3	30	11,736	4,482	48,245	2.01E-07	1.48E-07	2.6	1.21
FUG_SB_COM	Commercial St Southbound	SB	1	464.9	0.29	9.7	32	1.3	30	11,736	4,490	48,328	2.01E-07	1.48E-07	2.6	1.21
									Total	23,472						

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)	0.00530			
Road Dust - Emissions per Vehicle (g/VMT)	0.01569			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02303			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_COM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	2.43E-04	9	7.12%	836	1.54E-03	17	7.43%	872	1.61E-03
2	0.42%	49	9.08E-05	10	4.37%	513	9.47E-04	18	8.23%	966	1.78E-03
3	0.37%	44	8.05E-05	11	4.65%	546	1.01E-03	19	5.73%	672	1.24E-03
4	0.17%	20	3.77E-05	12	5.90%	692	1.28E-03	20	4.31%	505	9.32E-04
5	0.46%	53	9.85E-05	13	6.17%	724	1.34E-03	21	3.26%	382	7.05E-04
6	0.84%	99	1.82E-04	14	6.05%	710	1.31E-03	22	3.32%	389	7.18E-04
7	3.73%	438	8.08E-04	15	7.06%	828	1.53E-03	23	2.48%	291	5.37E-04
8	7.76%	911	1.68E-03	16	7.18%	843	1.55E-03	24	1.87%	220	4.05E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_COM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	2.44E-04	9	7.12%	836	1.54E-03	17	7.43%	872	1.61E-03
2	0.42%	49	9.10E-05	10	4.37%	513	9.48E-04	18	8.23%	966	1.79E-03
3	0.37%	44	8.07E-05	11	4.65%	546	1.01E-03	19	5.73%	672	1.24E-03
4	0.17%	20	3.78E-05	12	5.90%	692	1.28E-03	20	4.31%	505	9.34E-04
5	0.46%	53	9.87E-05	13	6.17%	724	1.34E-03	21	3.26%	382	7.06E-04
6	0.84%	99	1.83E-04	14	6.05%	710	1.31E-03	22	3.32%	389	7.19E-04
7	3.73%	438	8.09E-04	15	7.06%	828	1.53E-03	23	2.48%	291	5.38E-04
8	7.76%	911	1.68E-03	16	7.18%	843	1.56E-03	24	1.87%	220	4.06E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2029

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	Line Area Area (sq m)	Line Area Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	31.7	3.4	35	11,736	3,328	35,822	1.896E-09	1.398E-09	6.8	3.16
DPM_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	31.7	3.4	35	11,736	3,364	36,207	1.896E-09	1.398E-09	6.8	3.16
									Total	23,472						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00022			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and DPM Emissions - DPM_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.97%	466	6.02E-06	9	6.70%	787	1.02E-05	17	6.54%	768	9.91E-06
2	3.50%	410	5.30E-06	10	8.11%	952	1.23E-05	18	4.00%	470	6.06E-06
3	2.54%	299	3.85E-06	11	6.20%	728	9.39E-06	19	2.07%	243	3.13E-06
4	0.95%	112	1.44E-06	12	7.47%	877	1.13E-05	20	0.95%	112	1.44E-06
5	0.95%	112	1.44E-06	13	7.00%	821	1.06E-05	21	3.02%	355	4.58E-06
6	2.23%	261	3.37E-06	14	6.36%	746	9.63E-06	22	4.93%	578	7.47E-06
7	4.61%	541	6.98E-06	15	6.07%	712	9.19E-06	23	3.50%	410	5.30E-06
8	3.21%	376	4.86E-06	16	4.32%	507	6.54E-06	24	0.79%	93	1.20E-06
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.97%	466	6.09E-06	9	6.70%	787	1.03E-05	17	6.54%	768	1.00E-05
2	3.50%	410	5.35E-06	10	8.11%	952	1.24E-05	18	4.00%	470	6.13E-06
3	2.54%	299	3.89E-06	11	6.20%	728	9.49E-06	19	2.07%	243	3.16E-06
4	0.95%	112	1.46E-06	12	7.47%	877	1.14E-05	20	0.95%	112	1.46E-06
5	0.95%	112	1.46E-06	13	7.00%	821	1.07E-05	21	3.02%	355	4.62E-06
6	2.23%	261	3.41E-06	14	6.36%	746	9.74E-06	22	4.93%	578	7.55E-06
7	4.61%	541	7.06E-06	15	6.07%	712	9.29E-06	23	3.50%	410	5.35E-06
8	3.21%	376	4.91E-06	16	4.32%	507	6.61E-06	24	0.79%	93	1.22E-06
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

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
PM2.5_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	11,736	3,328	35,822	8.92E-09	6.58E-09	2.6	1.21
PM2.5_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	11,736	3,364	36,207	8.92E-09	6.58E-09	2.6	1.21
									Total	23,472						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001021			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	8.01E-06	9	7.12%	836	5.08E-05	17	7.43%	872	5.30E-05
2	0.42%	49	2.99E-06	10	4.37%	513	3.12E-05	18	8.23%	966	5.87E-05
3	0.37%	44	2.65E-06	11	4.65%	546	3.31E-05	19	5.73%	672	4.08E-05
4	0.17%	20	1.24E-06	12	5.90%	692	4.20E-05	20	4.31%	505	3.07E-05
5	0.46%	53	3.24E-06	13	6.17%	724	4.40E-05	21	3.26%	382	2.32E-05
6	0.84%	99	6.01E-06	14	6.05%	710	4.31E-05	22	3.32%	389	2.36E-05
7	3.73%	438	2.66E-05	15	7.06%	828	5.03E-05	23	2.48%	291	1.77E-05
8	7.76%	911	5.53E-05	16	7.18%	843	5.12E-05	24	1.87%	220	1.33E-05
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	8.10E-06	9	7.12%	836	5.13E-05	17	7.43%	872	5.35E-05
2	0.42%	49	3.02E-06	10	4.37%	513	3.15E-05	18	8.23%	966	5.93E-05
3	0.37%	44	2.68E-06	11	4.65%	546	3.35E-05	19	5.73%	672	4.13E-05
4	0.17%	20	1.25E-06	12	5.90%	692	4.25E-05	20	4.31%	505	3.10E-05
5	0.46%	53	3.28E-06	13	6.17%	724	4.44E-05	21	3.26%	382	2.35E-05
6	0.84%	99	6.07E-06	14	6.05%	710	4.36E-05	22	3.32%	389	2.39E-05
7	3.73%	438	2.69E-05	15	7.06%	828	5.08E-05	23	2.48%	291	1.79E-05
8	7.76%	911	5.59E-05	16	7.18%	843	5.17E-05	24	1.87%	220	1.35E-05
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2029

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_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	11,736	3,328	35,822	1.31E-07	9.63E-08	2.6	1.21
TEXH_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	11,736	3,364	36,207	1.31E-07	9.63E-08	2.6	1.21
									Total	23,472						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01494			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	1.17E-04	9	7.12%	836	7.43E-04	17	7.43%	872	7.75E-04
2	0.42%	49	4.37E-05	10	4.37%	513	4.56E-04	18	8.23%	966	8.58E-04
3	0.37%	44	3.88E-05	11	4.65%	546	4.85E-04	19	5.73%	672	5.97E-04
4	0.17%	20	1.82E-05	12	5.90%	692	6.15E-04	20	4.31%	505	4.49E-04
5	0.46%	53	4.74E-05	13	6.17%	724	6.43E-04	21	3.26%	382	3.40E-04
6	0.84%	99	8.79E-05	14	6.05%	710	6.31E-04	22	3.32%	389	3.46E-04
7	3.73%	438	3.89E-04	15	7.06%	828	7.36E-04	23	2.48%	291	2.59E-04
8	7.76%	911	8.09E-04	16	7.18%	843	7.49E-04	24	1.87%	220	1.95E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	1.18E-04	9	7.12%	836	7.51E-04	17	7.43%	872	7.83E-04
2	0.42%	49	4.42E-05	10	4.37%	513	4.61E-04	18	8.23%	966	8.67E-04
3	0.37%	44	3.92E-05	11	4.65%	546	4.90E-04	19	5.73%	672	6.04E-04
4	0.17%	20	1.83E-05	12	5.90%	692	6.21E-04	20	4.31%	505	4.54E-04
5	0.46%	53	4.80E-05	13	6.17%	724	6.50E-04	21	3.26%	382	3.43E-04
6	0.84%	99	8.88E-05	14	6.05%	710	6.38E-04	22	3.32%	389	3.49E-04
7	3.73%	438	3.93E-04	15	7.06%	828	7.44E-04	23	2.48%	291	2.61E-04
8	7.76%	911	8.18E-04	16	7.18%	843	7.57E-04	24	1.87%	220	1.97E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2029

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_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	11,736	3,328	35,822	1.85E-07	1.36E-07	2.6	1.21
TEVAP_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	11,736	3,364	36,207	1.85E-07	1.36E-07	2.6	1.21
									Total	23,472						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.74130			
Emissions per Vehicle per Mile (g/VMT)	0.02118			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	1.66E-04	9	7.12%	836	1.05E-03	17	7.43%	872	1.10E-03
2	0.42%	49	6.20E-05	10	4.37%	513	6.46E-04	18	8.23%	966	1.22E-03
3	0.37%	44	5.50E-05	11	4.65%	546	6.87E-04	19	5.73%	672	8.47E-04
4	0.17%	20	2.57E-05	12	5.90%	692	8.72E-04	20	4.31%	505	6.37E-04
5	0.46%	53	6.73E-05	13	6.17%	724	9.12E-04	21	3.26%	382	4.81E-04
6	0.84%	99	1.25E-04	14	6.05%	710	8.94E-04	22	3.32%	389	4.90E-04
7	3.73%	438	5.52E-04	15	7.06%	828	1.04E-03	23	2.48%	291	3.67E-04
8	7.76%	911	1.15E-03	16	7.18%	843	1.06E-03	24	1.87%	220	2.77E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	1.68E-04	9	7.12%	836	1.06E-03	17	7.43%	872	1.11E-03
2	0.42%	49	6.27E-05	10	4.37%	513	6.53E-04	18	8.23%	966	1.23E-03
3	0.37%	44	5.56E-05	11	4.65%	546	6.95E-04	19	5.73%	672	8.56E-04
4	0.17%	20	2.60E-05	12	5.90%	692	8.81E-04	20	4.31%	505	6.43E-04
5	0.46%	53	6.80E-05	13	6.17%	724	9.22E-04	21	3.26%	382	4.87E-04
6	0.84%	99	1.26E-04	14	6.05%	710	9.04E-04	22	3.32%	389	4.96E-04
7	3.73%	438	5.58E-04	15	7.06%	828	1.05E-03	23	2.48%	291	3.71E-04
8	7.76%	911	1.16E-03	16	7.18%	843	1.07E-03	24	1.87%	220	2.80E-04
								Total		11,736	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Project Trips - Old County Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2029**

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
FUG_NB_OLD	Old Country Road Project Trips Northbound	NB	1	344.6	0.21	9.7	32	1.3	35	11,736	3,328	35,822	2.02E-07	1.49E-07	2.6	1.21
FUG_SB_OLD	Old Country Road Project Trips Southbound	SB	1	348.3	0.22	9.7	32	1.3	35	11,736	3,364	36,207	2.02E-07	1.49E-07	2.6	1.21
									Total	23,472						

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)	0.00534			
Road Dust - Emissions per Vehicle (g/VMT)	0.01569			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02308			

Emisson Factors from CT-EMFAC2021

2029 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	132	1.81E-04	9	7.12%	836	1.15E-03	17	7.43%	872	1.20E-03
2	0.42%	49	6.76E-05	10	4.37%	513	7.04E-04	18	8.23%	966	1.33E-03
3	0.37%	44	5.99E-05	11	4.65%	546	7.49E-04	19	5.73%	672	9.23E-04
4	0.17%	20	2.80E-05	12	5.90%	692	9.50E-04	20	4.31%	505	6.94E-04
5	0.46%	53	7.33E-05	13	6.17%	724	9.94E-04	21	3.26%	382	5.25E-04
6	0.84%	99	1.36E-04	14	6.05%	710	9.75E-04	22	3.32%	389	5.34E-04
7	3.73%	438	6.01E-04	15	7.06%	828	1.14E-03	23	2.48%	291	4.00E-04
8	7.76%	911	1.25E-03	16	7.18%	843	1.16E-03	24	1.87%	220	3.02E-04
								Total		11,736	

2029 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	132	1.83E-04	9	7.12%	836	1.16E-03	17	7.43%	872	1.21E-03
2	0.42%	49	6.83E-05	10	4.37%	513	7.12E-04	18	8.23%	966	1.34E-03
3	0.37%	44	6.06E-05	11	4.65%	546	7.57E-04	19	5.73%	672	9.33E-04
4	0.17%	20	2.83E-05	12	5.90%	692	9.60E-04	20	4.31%	505	7.01E-04
5	0.46%	53	7.41E-05	13	6.17%	724	1.00E-03	21	3.26%	382	5.30E-04
6	0.84%	99	1.37E-04	14	6.05%	710	9.85E-04	22	3.32%	389	5.40E-04
7	3.73%	438	6.08E-04	15	7.06%	828	1.15E-03	23	2.48%	291	4.04E-04
8	7.76%	911	1.26E-03	16	7.18%	843	1.17E-03	24	1.87%	220	3.05E-04
								Total		11,736	

Alexandria District Life Science , San Carlos, CA - Haul Routes In/Out Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0012	0.0040	0.0004

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0055	0.0043	0.0011

Alexandria District Life Science , San Carlos, CA - Brittan Ave Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0070	0.0063

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0058	0.0055	0.0003

Alexandria District Life Science , San Carlos, CA - Old Country Road Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0002	0.0311	0.0284

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0305	0.0293	0.0012

Alexandria District Life Science Phase 2, San Carlos, CA - Brittan Ave Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2027
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0162	0.0143

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0145	0.0139	0.0006

Alexandria District Life Science Phase 2, San Carlos, CA - Old County Road Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2027
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0005	0.0724	0.0648

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0762	0.0737	0.0025

Alexandria District Life Science Phase 2, San Carlos, CA - Commercial St Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2027
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0224	0.0190

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0161	0.0154	0.0008

Alexandria District Life Science Phase 3, San Carlos, CA - Brittan Ave Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2029
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0236	0.0199

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0215	0.0208	0.0008

Alexandria District Life Science Phase 3, San Carlos, CA - Old County Road Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2029
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0007	0.1055	0.0907

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.1135	0.1101	0.0034

Alexandria District Life Science Phase 3, San Carlos, CA - Commercial St Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2029
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0002	0.0326	0.0266

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0240	0.0229	0.0010

Alexandria District Life Science , San Carlos, CA - Haul Routes In/Out Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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 --> Parameter	3rd Trimester	0 - 2	2 - 16	16 - 30
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*	2021	10	0.0012	0.0040	0.0004	0.016	0.000	0.0000	0.02
1	1	0 - 1	2021	10	0.0012	0.0040	0.0004	0.194	0.004	0.0000	0.20
2	1	1 - 2	2022	10	0.0012	0.0040	0.0004	0.194	0.004	0.0000	0.20
3	1	2 - 3	2023	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
4	1	3 - 4	2024	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
5	1	4 - 5	2025	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
6	1	5 - 6	2026	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
7	1	6 - 7	2027	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
8	1	7 - 8	2028	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
9	1	8 - 9	2029	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
10	1	9 - 10	2030	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
11	1	10 - 11	2031	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
12	1	11 - 12	2032	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
13	1	12 - 13	2033	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
14	1	13 - 14	2034	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
15	1	14 - 15	2035	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
16	1	15 - 16	2036	3	0.0012	0.0040	0.0004	0.031	0.001	0.0000	0.03
17	1	16-17	2037	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
18	1	17-18	2038	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
19	1	18-19	2039	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
20	1	19-20	2040	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
21	1	20-21	2041	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
22	1	21-22	2042	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
23	1	22-23	2043	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
24	1	23-24	2044	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
25	1	24-25	2045	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
26	1	25-26	2046	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
27	1	26-27	2047	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
28	1	27-28	2048	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
29	1	28-29	2049	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
30	1	29-30	2050	1	0.0012	0.0040	0.0004	0.003	0.000	0.0000	0.00
Total Increased Cancer Risk								0.88	0.017	0.000	**0.90**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00024	0.00	0.01

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, CA - Brittan Ave Project Trips Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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*	2024	10	0.0001	0.0070	0.0063	0.001	0.001	0.0000	0.00
1	1	0 - 1	2024	10	0.0001	0.0070	0.0063	0.008	0.007	0.0003	0.02
2	1	1 - 2	2025	10	0.0001	0.0070	0.0063	0.008	0.007	0.0003	0.02
3	1	2 - 3	2026	3	0.0001	0.0070	0.0063	0.001	0.001	0.0001	0.00
4	1	3 - 4	2027	3	0.0002	0.0347	0.0311	0.006	0.005	0.0003	0.01
5	1	4 - 5	2028	3	0.0002	0.0347	0.0311	0.006	0.005	0.0003	0.01
6	1	5 - 6	2029	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
7	1	6 - 7	2030	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
8	1	7 - 8	2031	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
9	1	8 - 9	2032	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
10	1	9 - 10	2033	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
11	1	10 - 11	2034	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
12	1	11 - 12	2035	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
13	1	12 - 13	2036	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
14	1	13 - 14	2037	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
15	1	14 - 15	2038	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
16	1	15 - 16	2039	3	0.0001	0.0236	0.0199	0.004	0.003	0.0002	0.01
17	1	16-17	2040	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
18	1	17-18	2041	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
19	1	18-19	2042	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
20	1	19-20	2043	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
21	1	20-21	2044	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
22	1	21-22	2045	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
23	1	22-23	2046	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
24	1	23-24	2047	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
25	1	24-25	2048	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
26	1	25-26	2049	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
27	1	26-27	2050	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
28	1	27-28	2051	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
29	1	28-29	2052	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
30	1	29-30	2053	1	0.0001	0.0236	0.0199	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.08	0.069	0.003	**0.15**

	Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
	0.00001	0.01	0.01
	0.00004	0.03	0.03
	0.00003	0.02	0.02

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Old Country Road Project Trips Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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 --> Parameter	3rd Trimester	0 - 2	2 - 16	16 - 30
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*	2024	10	0.0002	0.0311	0.0284	0.003	0.002	0.0001	0.01
1	1	0 - 1	2024	10	0.0002	0.0311	0.0284	0.036	0.029	0.0016	0.07
2	1	1 - 2	2025	10	0.0002	0.0311	0.0284	0.036	0.029	0.0016	0.07
3	1	2 - 3	2026	3	0.0002	0.0311	0.0284	0.006	0.005	0.0002	0.01
4	1	3 - 4	2027	3	0.0001	0.0113	0.0104	0.002	0.002	0.0001	0.00
5	1	4 - 5	2028	3	0.0001	0.0113	0.0104	0.002	0.002	0.0001	0.00
6	1	5 - 6	2029	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
7	1	6 - 7	2030	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
8	1	7 - 8	2031	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
9	1	8 - 9	2032	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
10	1	9 - 10	2033	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
11	1	10 - 11	2034	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
12	1	11 - 12	2035	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
13	1	12 - 13	2036	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
14	1	13 - 14	2037	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
15	1	14 - 15	2038	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
16	1	15 - 16	2039	3	0.0007	0.1055	0.0907	0.018	0.016	0.0008	0.03
17	1	16-17	2040	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
18	1	17-18	2041	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
19	1	18-19	2042	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
20	1	19-20	2043	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
21	1	20-21	2044	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
22	1	21-22	2045	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
23	1	22-23	2046	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
24	1	23-24	2047	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
25	1	24-25	2048	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
26	1	25-26	2049	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
27	1	26-27	2050	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
28	1	27-28	2051	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
29	1	28-29	2052	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
30	1	29-30	2053	1	0.0007	0.1055	0.0907	0.002	0.002	0.0001	0.00
Total Increased Cancer Risk								0.32	0.264	0.014	**0.59**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00004	0.03	0.03
0.00002	0.07	0.08
0.00014	0.11	0.11

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Commercial St Project Trips Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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*	2027	10	0.0001	0.0224	0.0190	0.002	0.002	0.0001	0.00
1	1	0 - 1	2027	10	0.0001	0.0224	0.0190	0.020	0.021	0.0010	0.04
2	1	1 - 2	2028	10	0.0001	0.0224	0.0190	0.020	0.021	0.0010	0.04
3	1	2 - 3	2029	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
4	1	3 - 4	2030	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
5	1	4 - 5	2031	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
6	1	5 - 6	2032	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
7	1	6 - 7	2033	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
8	1	7 - 8	2034	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
9	1	8 - 9	2035	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
10	1	9 - 10	2036	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
11	1	10 - 11	2037	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
12	1	11 - 12	2038	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
13	1	12 - 13	2039	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
14	1	13 - 14	2040	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
15	1	14 - 15	2041	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
16	1	15 - 16	2042	3	0.0002	0.0326	0.0266	0.004	0.005	0.0002	0.01
17	1	16-17	2043	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
18	1	17-18	2044	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
19	1	18-19	2045	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
20	1	19-20	2046	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
21	1	20-21	2047	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
22	1	21-22	2048	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
23	1	22-23	2049	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
24	1	23-24	2050	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
25	1	24-25	2051	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
26	1	25-26	2052	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
27	1	26-27	2053	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
28	1	27-28	2054	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
29	1	28-29	2055	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
30	1	29-30	2056	1	0.0002	0.0326	0.0266	0.000	0.001	0.0000	0.00
Total Increased Cancer Risk								0.11	0.119	0.006	**0.23**

	Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
	0.00002	0.02	0.02
	0.00003	0.02	0.02

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Haul Routes In/Out Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations - With MERV16
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0026	0.0456	0.0044

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0123	0.0098	0.0025

Alexandria District Life Science , San Carlos, CA - Brittan Ave Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0000	0.0400	0.0338

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0073	0.0070	0.0003

Alexandria District Life Science , San Carlos, CA - Old Country Road Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0000	0.0202	0.0174

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0043	0.0042	0.0001

Alexandria District Life Science , San Carlos, CA - Commercial St Project Trips Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.1162	0.0947

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0171	0.0164	0.0008

Alexandria District Life Science , San Carlos, CA - Haul Routes In/Out Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
3 Year 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-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-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**		**Hazard Index**	**Maximum Fugitive PM2.5**	**Total PM2.5**
1	1	0 - 1	2026	10	0.0026	0.0456	0.0044	0.428	0.043	0.0002	0.47	0.00052	0.01	0.01
2	1	1 - 2	2027	10	0.0026	0.0456	0.0044	0.428	0.043	0.0002	0.47	0.00052	0.01	0.01
3	1	2 - 3	2028	3	0.0026	0.0456	0.0044	0.067	0.007	0.0000	0.07	0.00052	0.01	0.01
Total Increased Cancer Risk								0.92	0.092	0.001	**1.02**			

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Brittan Ave Project Trips Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
30 Year 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	0.0000	0.0400	0.0338	0.001	0.003	0.0002	0.00
1	1	0 - 1	2026	10	0.0000	0.0400	0.0338	0.008	0.038	0.0019	0.05
2	1	1 - 2	2027	10	0.0000	0.0400	0.0338	0.008	0.038	0.0019	0.05
3	1	2 - 3	2028	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
4	1	3 - 4	2029	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
5	1	4 - 5	2030	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
6	1	5 - 6	2031	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
7	1	6 - 7	2032	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
8	1	7 - 8	2033	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
9	1	8 - 9	2034	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
10	1	9 - 10	2035	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
11	1	10 - 11	2036	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
12	1	11 - 12	2037	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
13	1	12 - 13	2038	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
14	1	13 - 14	2039	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
15	1	14 - 15	2040	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
16	1	15 - 16	2041	3	0.0000	0.0400	0.0338	0.001	0.006	0.0003	0.01
17	1	16-17	2042	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0400	0.0338	0.000	0.001	0.0000	0.00
Total Increased Cancer Risk								0.04	0.170	0.008	**0.21**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00001	0.01	0.01

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Old Country Road Project Trips Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
30 Year 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 --> Parameter	3rd Trimester	0 - 2	2 - 16	16 - 30
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	0.0000	0.0202	0.0174	0.000	0.002	0.0001	0.00
1	1	0 - 1	2026	10	0.0000	0.0202	0.0174	0.005	0.019	0.0010	0.02
2	1	1 - 2	2027	10	0.0000	0.0202	0.0174	0.005	0.019	0.0010	0.02
3	1	2 - 3	2028	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
4	1	3 - 4	2029	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
5	1	4 - 5	2030	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
6	1	5 - 6	2031	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
7	1	6 - 7	2032	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
8	1	7 - 8	2033	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
9	1	8 - 9	2034	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
10	1	9 - 10	2035	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
11	1	10 - 11	2036	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
12	1	11 - 12	2037	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
13	1	12 - 13	2038	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
14	1	13 - 14	2039	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
15	1	14 - 15	2040	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
16	1	15 - 16	2041	3	0.0000	0.0202	0.0174	0.001	0.003	0.0002	0.00
17	1	16-17	2042	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0202	0.0174	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.02	0.086	0.004	**0.11**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.00	0.00

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Commercial St Project Trips Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
30 Year 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	0.0001	0.1162	0.0947	0.001	0.009	0.0004	0.01
1	1	0 - 1	2026	10	0.0001	0.1162	0.0947	0.018	0.109	0.0052	0.13
2	1	1 - 2	2027	10	0.0001	0.1162	0.0947	0.018	0.109	0.0052	0.13
3	1	2 - 3	2028	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
4	1	3 - 4	2029	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
5	1	4 - 5	2030	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
6	1	5 - 6	2031	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
7	1	6 - 7	2032	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
8	1	7 - 8	2033	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
9	1	8 - 9	2034	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
10	1	9 - 10	2035	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
11	1	10 - 11	2036	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
12	1	11 - 12	2037	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
13	1	12 - 13	2038	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
14	1	13 - 14	2039	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
15	1	14 - 15	2040	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
16	1	15 - 16	2041	3	0.0001	0.1162	0.0947	0.003	0.017	0.0008	0.02
17	1	16-17	2042	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
18	1	17-18	2043	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
19	1	18-19	2044	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
20	1	19-20	2045	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
21	1	20-21	2046	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
22	1	21-22	2047	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
23	1	22-23	2048	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
24	1	23-24	2049	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
25	1	24-25	2050	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
26	1	25-26	2051	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
27	1	26-27	2052	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
28	1	27-28	2053	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
29	1	28-29	2054	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
30	1	29-30	2055	1	0.0001	0.1162	0.0947	0.000	0.002	0.0001	0.00
Total Increased Cancer Risk								0.08	0.494	0.024	**0.60**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00002	0.02	0.02

* Third trimester of pregnancy

Attachment 5: Health Risk Modeling Information and Calculations

Alexandria - San Carlos, CA
DPM Modeling - Rail Line Information and DPM Emission Rates
Caltrain Electrification and Diesel-Powered Freight

Year	Description	Modeled No. Lines	Link Width (ft)	Link Width (m)	Link Length (ft)	Link Length (miles)	Link Length (m)	Release Height (m)	No. Trains per Day	Train Travel Speed (mph)	DPM Emission Rates			
											Average Daily Emission Rate (g/mi/day)	Average Daily Emission Rate (g/day)	Link Emission Rate (g/s)	Link Emission Rate (lb/hr)
2021-2024	Caltrain	1	15	4.6	2,935	0.56	894	5.0	83	40	203.8	113.3	1.31E-03	1.04E-02
	Freight Trains	1	15	4.6	2,935	0.56	894	5.0	4	40	18.1	10.1	1.17E-04	9.25E-04
	Total	**-**	**-**	**-**	**2,935**	**0.56**	**894**	**-**	**87**	**-**	**221.9**	**123.3**	**1.43E-03**	**1.13E-02**
2025+	Caltrain	1	15	4.6	2,935	0.56	894	5.0	18	40	15.0	8.3	9.66E-05	7.67E-04
	Freight Trains	1	15	4.6	2,935	0.56	894	5.0	4	40	6.6	3.7	4.27E-05	3.39E-04
	Total	**-**	**-**	**-**	**2,935**	**0.56**	**894**	**-**	**22**	**-**	**21.7**	**12.0**	**1.39E-04**	**1.11E-03**

Notes: Emission based on Emission Factors for Locomotives, USEPA 2009 (EPA-420-F-09-025)
Average emissions calculated for periods 2021-2024, and 2025-2050.
Fuel correction factors from Offroad Modeling Change Technical memo, Changes to the Locomotive Inventory, CARB July 2006.
PM2.5 calculated as 92% of PM emissions (CARB CEIDERS PM2.5 fractions)
Passenger trains assumed to operate for 24 hours per day
Freight trains assumed to operate for 24 hours per day

Caltrain Passenger Trains	***2021-2024 (Existing) Diesel Trains***	***2025+ (with Electrification) Diesel Trains***
Passenger trains - weekday =	104	24
Passenger trains - weekend =	32	4
Passenger trains - Sat only =	0	0
Total Trains =	136	28
Annual average daily trains =	83	18
Locomotive horsepower =	3285	3467
Locomotives per train =	1	1
Engine load =	0.5	0.5
Freight		
Freight trains per day =	4	7 days/week
Locomotive horsepower =	2300	
Locomotives per train =	2	
Total horsepower =	4600	
Locomotive engine load =	0.5	

DPM Locomotive Emission Factors (g/hp-hr)

Train Type	2021-2025	2025+
Passenger	0.084	0.027
Freight	0.094	0.034

2025+ emissions are average for 2025-2050.

Project MEI Rail Line Impacts

Alexandria - San Carlos - Construction MEI-Rail Line DPM & PM2.5 Concentrations
AERMOD Risk Modeling Parameters and Maximum Concentrations
Caltrain Electrification and Diesel-Powered Freight Trains

Receptor Information	Construction MEI (2nd Floor)
Number of Receptors	1
Receptor Height =	1.5 meters (4.9 feet)
Receptor distances =	-

Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011-2015
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

Construction MEI Receptor Concentrations - Receptor Height = 1.5 m

Meteorological Data Years	**Period Average DPM Concentration ($\mu g/m^3$) 2021-2024**	**2025-2050**
2011-2015	0.0673	0.00654
Meteorological Data Years	**Period Average PM2.5 Concentration ($\mu g/m^3$) 2021-2024**	**2025-2050**
2011-2015	0.0619	0.0060

Alexandria - San Carlos, CA - Rail Impacts at Construction MEI (1st Floor)
AERMOD Railroad DPM Risk Modeling - Maximum Cancer Risk at Construction MEI
Caltrain Electrification and Diesel-Powered Freight Trains

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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age --> / Parameter	3rd Trimester	0 - <2	2 - <16	16 - 30
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
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

Rail Cancer Risk by Year - Construction MEI Receptor Location (1st Floor)

Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM Annual Conc (ug/m3)	DPM Cancer Risk (per million)	Maximum Hazard Index
0	2021	0.25	-0.25 - 0*	10	0.0673	0.916	0.013
1	2021	1	1	10	0.0673	11.057	0.013
2	2022	1	2	10	0.0673	11.057	0.013
3	2023	1	3	3	0.0673	1.741	0.013
4	2024	1	4	3	0.0673	1.741	0.013
5	2025	1	5	3	0.0065	0.169	0.001
6	2026	1	6	3	0.0065	0.169	0.001
7	2027	1	7	3	0.0065	0.169	0.001
8	2028	1	8	3	0.0065	0.169	0.001
9	2029	1	9	3	0.0065	0.169	0.001
10	2030	1	10	3	0.0065	0.169	0.001
11	2031	1	11	3	0.0065	0.169	0.001
12	2032	1	12	3	0.0065	0.169	0.001
13	2033	1	13	3	0.0065	0.169	0.001
14	2034	1	14	3	0.0065	0.169	0.001
15	2035	1	15	3	0.0065	0.169	0.001
16	2036	1	16	3	0.0065	0.169	0.001
17	2037	1	17	1	0.0065	0.019	0.001
18	2038	1	18	1	0.0065	0.019	0.001
19	2039	1	19	1	0.0065	0.019	0.001
20	2040	1	20	1	0.0065	0.019	0.001
21	2041	1	21	1	0.0065	0.019	0.001
22	2042	1	22	1	0.0065	0.019	0.001
23	2043	1	23	1	0.0065	0.019	0.001
24	2044	1	24	1	0.0065	0.019	0.001
25	2045	1	25	1	0.0065	0.019	0.001
26	2046	1	26	1	0.0065	0.019	0.001
27	2047	1	27	1	0.0065	0.019	0.001
28	2048	1	28	1	0.0065	0.019	0.001
29	2049	1	29	1	0.0065	0.019	0.001
30	2050	1	30	1	0.0065	0.019	0.001
Total Increased Cancer Risk						**28.80**	

* Third trimester of pregnancy

Daycare Impacts

Alexandria - San Carlos- On-Site Daycare-Rail Line DPM & PM2.5 Concentrations
AERMOD Risk Modeling Parameters and Maximum Concentrations
Caltrain Electrification and Diesel-Powered Freight Trains

Receptor Information	Project On-Site Daycare Facility
Number of Receptors	1
Receptor Height =	1.0 meters (3.3 feet)
Receptor distances =	-

Meteorological Conditions

BAAQMD San Carlos Airport Met Dat	2011-2015
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

On-Site Project Daycare Receptor Concentrations - Receptor Height = 1.0 m

Meteorological Data Years	**Period Average DPM Concentration ($\mu g/m^3$) 2025+**
2011-2015	0.0018
Meteorological Data Years	**Period Average PM2.5 Concentration ($\mu g/m^3$) 2025+**
2011-2015	0.0016

Alexandria - San Carlos, CA - Rail Impacts at On-Site Project Daycare Facility
Maximum DPM Cancer Risk and PM2.5 Calculations
Caltrain Electrification and Diesel-Powered Freight Trains

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 DAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DAF = Daycare Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (DCHR/8 hrs)
SHR = Hours of emission source operation
SDay = Modeled number of days per week of source operation
DCHR = 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
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	Child
Age -->	**0 - <2**	**2 - <9**
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	640
DCHR =	9	9
SHR =	24	24
SDay =	7	7
A =	1	1
EF =	260	260
AT =	70	70
DAF =	1.13	1.13

* 95th percentile 8-hr breathing rates for moderate intensity activities

Rail Operation Cancer Risk by Year - On-Site Project Daycare Receptor Location

			Child - Exposure Information			Child	Maximum	
			DPM Conc (ug/m3)		Age*	Cancer		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Risk (per million)	Hazard Index	Total PM2.5
1	1	0 - 1	2027	0.0018	10	0.27	0.0004	0.0018
2	1	1 - 2	2028	0.0018	10	0.27	0.0004	0.0018
3	1	2 - 3	2029	0.0018	3	0.04	0.0004	0.0018
4	1	3 - 4	2030	0.0018	3	0.04	0.0004	0.0018
5	1	4 - 5	2031	0.0018	3	0.04	0.0004	0.0018
Total Increased Cancer Risk						**0.63**		

* Children assumed to be 0 - 5 years of age with 5 years of exposure

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	**12/1/2021**
Contact Name	Zachary Palm
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x117
Email	zpalm@illingworthrodkin.com
Project Name	Alexandria District
Address	960 Industrial Road
City	San Carlos
County	San Mateo
Type (residential, commercial, mixed use, industrial, etc.)	Office
Project Size (# of units or building square feet)	1,734,632 sf
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 E[illegible] 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 [illegible]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 Areana Flores at 415-749-4616, or aflores@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	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
1000+	2939	CEMEX Construction Materials Pacific, LLC	1026 Bransten Road	2.72	0.08	64.41		Ready-Mix Concrete Manufacturing		2018 Dataset	0.13	0.36	0.010	8.50
1000+	7591	Garden Supply	803 Old County Road	0.00	0.00	0.15		(1) Wood Working Operation-Exempt		2018 Dataset	0.13	0.00	0.000	0.02
1000+	10925	Royalite Manufacturing Inc	1055 Terminal Way	0.00	0.00	0.00		(1) Metal Coating Operation		2018 Dataset	0.13	0.00	0.000	0.00
940	15186	The Home Depot (Store #0628)	1125 Old County Road	9.17	0.01	0.01		(1) Generator		2018 Dataset	0.04	0.37	0.000	0.00
1000+	20582	Nxedge San Carlos	1000 Commercial Street	0.75	0.00	0.06		(1) Generator, (2) Boilers, (2) Colvent Cleaning operations		2018 Dataset	0.13	0.10	0.000	0.01
1000+	20952	City of San Carlos	1041 Industrial Road	0.00	0.00	0.00		(1) Generator		2018 Dataset	0.04	0.00	0.000	0.00
											0.04	0.62	0.000	0.00
1000+	23383	Grove Construction	1007 Bransten Road	0.16	0.00			(1) Sub-slab Vapor Mitigation System		2018 Dataset	0.13	0.02	0.000	0.00
1000+	23794	Caliber Collision Center	794 Industrial Road	0.00	0.00	0.00		(1) Auto Body Coating Operation		2018 Dataset	0.13	0.00	0.000	0.00
740	103155	Nielsen Automotive Inc	888 El Camino Real	11.12	0.05			Gas Dispensing Facility		2018 Dataset	0.02	0.27	0.001	0.00
1000+	108501	City of San Carlos - Corporation Yard	1000 Bransten Rd	9.42	0.00	0.01		Gas Dispensing Facility		2018 Dataset	0.02	0.14	0.000	0.00
500	112242	Brittan Shell	1098 El Camino Real	45.92	0.20			Gas Dispensing Facility		2018 Dataset	0.05	2.11	0.009	0.00
1000+	23147	Hudson Pacific Properties	959 Skyway Rd, Suite 100	1.92	0	0		(1) Generator		2018 Dataset	0.04	0.08	0.000	0.00

Construction MEIs

Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
0.13	0.36	0.010	8.50
0.13	0.00	0.000	0.02
0.13	0.00	0.000	0.00
0.04	0.37	0.000	0.00
0.13	0.10	0.000	0.01
0.04	0.00	0.000	0.00
0.04	0.62	0.000	0.00
0.13	0.02	0.000	0.00
0.13	0.00	0.000	0.00
0.02	0.27	0.001	0.00
0.02	0.14	0.000	0.00
0.05	2.11	0.009	0.00
0.04	0.08	0.000	0.00

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
    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 the number of years perc use will continue after the project's residents or other sensitive receptors (such as students, patients, etc) take occupancy.
    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.

Project Daycare

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
1000	2939	0.13	0.36	0.010	8.503
980	7591	0.14	0.00	0.000	0.021
1000+	10925	0.13	0.00	0.000	0.000
835	15186	0.06	0.55	0.001	0.001
490	20582	0.36	0.27	0.000	0.020
770	20952	0.07	0.00	0.000	0.000
580	21826	0.10	1.55	0.001	0.002
680	23383	0.25	0.04	0.000	0.000
1000+	23794	0.13	0.00	0.000	0.000
1000+	103155	0.02	0.17	0.001	0.000
1000+	108501	0.02	0.14	0.000	0.000
1000+	112242	0.02	0.69	0.003	0.000
1000+	23147	0.04	0.08	0.000	0.000

Date last updated:
03/13/2018

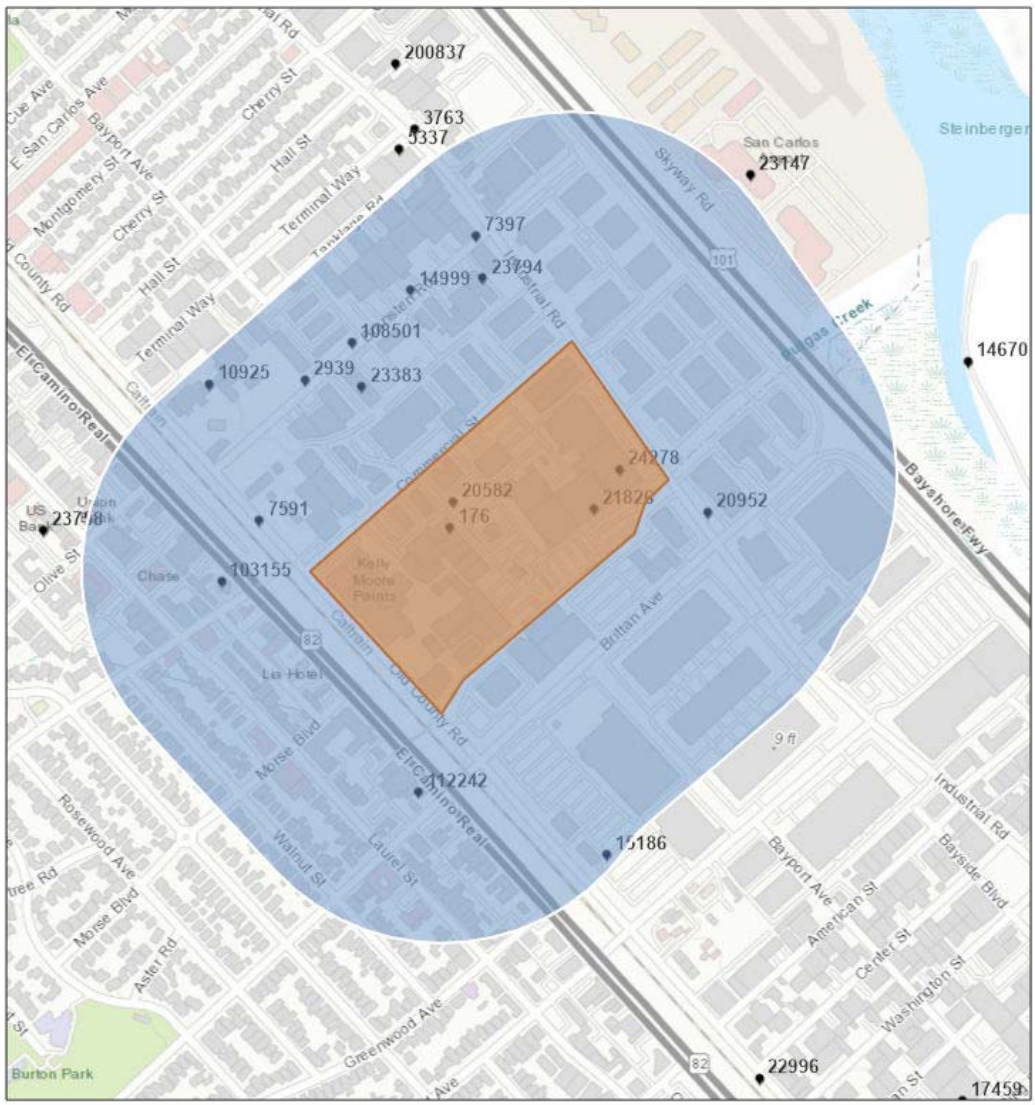
Plant#	Plant Name	Address	City	St	Zip	County	Type
176	Kelly-Moore Paint Co, Inc	1015 Commercial Street	San Carlos	CA	94070	San Mateo	(1) Spray Booth-Exempt
2939	CEMEX Construction Materials Pacific, LLC	1026 Bransten Road	San Carlos	CA	94070	San Mateo	Ready-Mix Concrete Manufacturing
7397	San Carlos Radiator	777 Industrial Road	San Carlos	CA	94070	San Mateo	Shutdown 2020
7591	Garden Supply	803 Old County Road	San Carlos	CA	94070	San Mateo	(1) Wood Working Operation-Exempt
10925	Royalite Manufacturing Inc	1055 Terminal Way	San Carlos	CA	94070	San Mateo	(1) Metal Coating Operation
14999	Superior Body Shop	956 Bransten Rd	San Carlos	CA	94070	San Mateo	Shutdown 2020
15186	The Home Depot (Store #0628)	1125 Old County Road	San Carlos	CA	94070	San Mateo	(1) Generator
20582	Nxedge San Carlos	1000 Commercial Street	San Carlos	CA	94070	San Mateo	(1) Generator, (2) Boilers, (2) Colvent Cleaning operations
20952	City of San Carlos	1041 Industrial Road	San Carlos	CA	94070	San Mateo	(1) Generator
21826	Sutro BioPharma	894 Industrial Road	San Carlos	CA	94070	San Mateo	(2) Generator
23383	Grove Construction	1007 Bransten Road	San Carlos	CA	94070	San Mateo	(1) Sub-slab Vapor Mitigation System
23794	Caliber Collision Center	794 Industrial Road	San Carlos	CA	94070	San Mateo	(1) Auto Body Coating Operation
24278	ARE-San Francisco No 62, LLC	960 Industrial Road	San Carlos	CA	94070	San Mateo	(2) Generator
103155	Nielsen Automotive Inc	888 El Camino Real	San Carlos	CA	94070	San Mateo	Gas Dispensing Facility
108501	City of San Carlos - Corporation Yard	1000 Bransten Rd	San Carlos	CA	94070	San Mateo	Gas Dispensing Facility
112242	Brittan Shell	1098 El Camino Real	San Carlos	CA	94070	San Mateo	Gas Dispensing Facility
23147	Hudson Pacific Properties	959 Skyway Rd, Suite 100	San Carlos	CA	94070	San Mateo	(1) Generator

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 8,851,896.83 ft²

Dec 1 2021 7:21:43 Eastern Standard Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Facilities 2018	16	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	176	Kelly-Moore Paint Co, Inc	1015 Commercial Street	San Carlos	CA
2	2939	CEMEX Construction Materials Pacific, LLC	1026 Bransten Road	San Carlos	CA
3	7397	San Carlos Radiator	777 Industrial Road	San Carlos	CA
4	7591	Garden Supply	803 Old County Road	San Carlos	CA
5	10925	Royalite Manufacturing Inc	1055 Terminal Way	San Carlos	CA
6	14999	Superior Body Shop	956 Bransten Rd	San Carlos	CA
7	15186	The Home Depot (Store #0628)	1125 Old County Road	San Carlos	CA
8	20582	Nxedge San Carlos	1000 Commercial Street	San Carlos	CA
9	20952	City of San Carlos	1041 Industrial Road	San Carlos	CA
10	21826	Sutro BioPharma	894 Industrial Road	San Carlos	CA
11	23383	Greenmarc, LLC	1007 Bransten Road	San Carlos	CA
12	23794	Caliber Collision Center	794 Industrial Road	San Carlos	CA
13	24278	ARE-San Francisco No 62, LLC	960 Industrial Road	San Carlos	CA
14	103155	Nielsen Automotive Inc	888 El Camino Real	San Carlos	CA
15	108501	City of San Carlos - Corporation Yard	1000 Bransten Rd	San Carlos	CA
16	112242	Brittan Shell	1098 El Camino Real	San Carlos	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	94070	San Mateo	0.000	0.000	0.000	Contact BAAQMD	1
2	94070	San Mateo	2.720	0.080	64.410	Contact BAAQMD	1
3	94070	San Mateo	0.000	0.000	0.000	Contact BAAQMD	1
4	94070	San Mateo	0.000	0.000	0.150	Contact BAAQMD	1
5	94070	San Mateo	0.000	0.000	0.000	Contact BAAQMD	1
6	94070	San Mateo	0.000	0.000	0.000	Contact BAAQMD	1
7	94070	San Mateo	9.170	0.010	0.010	Generators	1
8	94070	San Mateo	0.750	0.000	0.060	Contact BAAQMD	1
9	94070	San Mateo	0.000	0.000	0.000	Contact BAAQMD	1
10	94070	San Mateo	15.480	0.010	0.020	Generators	1
11	94070	San Mateo	0.160	0.000	0.000	Contact BAAQMD	1
12	94070	San Mateo	0.000	0.000	0.000	Contact BAAQMD	1
13	94070	San Mateo	0.120	0.000	0.000	Generators	1
14	94070	San Mateo	11.120	0.050	0.000	Gas Dispensing Facility	1
15	94070	San Mateo	9.420	0.000	0.010	Gas Dispensing Facility	1
16	94070	San Mateo	45.920	0.200	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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Alexandria District Life Science Phase 1, San Carlos, CA

PM2.5 Fugitive Dust Emissions for Modeling - CEMEX

Construction Year	Activity	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 $g/s/m^2$
2019	Construction	CON_FUG	6.2000	12400.0	3.77473	4.76E-01	7,782	6.11E-05
Total			***6.2000***	***12400.0***	***3.7747***	***0.4756***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Alexandria District Life Science, San Carlos, CA - CEMEX Impacts - With MERV16
Maximum PM2.5 Calculations From Nearby CEMEX Plant
Impacts at Daycare - 1 meter - Infant 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

	School 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 =	3.73	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	0 - 1	2026	0.0000	10	0.0
2	1	1 - 2	2027	0.0000	10	0.0
3	1	2 - 3	2028	0.0000	3	0.0
4	1	3 - 4	2029	0.0000	3	0.0
5	1	4 - 5	2030	0.0000	3	0.0
6	1			0.0000	3	0.0
7	1			0.0000	3	0.0
8	1			0.0000	3	0.0
9	1			0.0000	3	0.0
Total Increased Cancer Risk						**0.00**

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.0000	0.1457	0.146

Alexandria District Life Science, San Carlos, CA - CEMEX Impacts
Maximum PM2.5 Calculations From Operation
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				Maximum		
			DPM Conc (ug/m3)				Modeled DPM Conc (ug/m3)						
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Year**	**Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2027	0.0000	10	0.00	2027	0.0000	-	-			
1	1	0 - 1	2027	0.0000	10	0.00	2027	0.0000	1	0.00	0.000	0.64	0.64
Total Increased Cancer Risk						**0.00**				**0.00**			

* Third trimester of pregnancy

File Name: Highway 101 2026.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 6/14/2023 3:55:52 PM
Area: San Mateo (SF)
Analysis Year: 2026
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.017	0.387	0.588
Truck 2	0.026	0.811	0.133
Non-Truck	0.957	0.010	0.926

==========

Road Type: Freeway
Silt Loading Factor: CARB 0.015 g/m2
Precipitation Correction: CARB P = 74 days N = 365 days

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	55 mph	60 mph	65 mph
PM2.5	0.001220	0.001354	0.001549
TOG	0.014380	0.015196	0.016777
Diesel PM	0.000474	0.000554	0.000637

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.801230

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002098

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	55 mph	60 mph	65 mph
PM2.5	0.002483	0.002181	0.001880

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.008416

==========END==========

File Name: Highways 2024.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 6/15/2023 1:51:27 PM
Area: San Mateo (SF)
Analysis Year: 2024
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.017	0.379	0.614
Truck 2	0.026	0.827	0.133
Non-Truck	0.957	0.010	0.934

==========

Road Type: Freeway
Silt Loading Factor: CARB 0.015 g/m2
Precipitation Correction: CARB P = 74 days N = 365 days

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	55 mph	60 mph	65 mph
PM2.5	0.001359	0.001503	0.001711
TOG	0.016756	0.017734	0.019613
Diesel PM	0.000542	0.000626	0.000711

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.866751

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002098

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	55 mph	60 mph	65 mph
PM2.5	0.002484	0.002183	0.001883

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.008301

==========END==========

```
           File Name:   Local Roadways 2021.EF
CT-EMFAC2021 Version:   1.0.2.0
             Run Date:   6/15/2023 1:49:34 PM
                 Area:   San Mateo (SF)
        Analysis Year:   2021
               Season:   Annual
```

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.020	0.337	0.663
Truck 2	0.011	0.842	0.126
Non-Truck	0.969	0.011	0.950

```
               Road Type:       Major/Collector
     Silt Loading Factor:                  CARB         0.032 g/m2
Precipitation Correction:                  CARB         P = 74 days     N = 365
days
```

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	25 mph	30 mph	35 mph	40 mph
PM2.5	0.002597	0.002076	0.001744	0.001543
TOG	0.041960	0.033287	0.027687	0.024143
Diesel PM	0.000629	0.000541	0.000480	0.000447

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.027834

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002053

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	25 mph	30 mph	35 mph	40 mph
PM2.5	0.005280	0.005358	0.005419	0.004956

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.014824

==========END==========

File Name: Local Roadways 2026.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 6/14/2023 3:56:28 PM
Area: San Mateo (SF)
Analysis Year: 2026
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.021	0.387	0.588
Truck 2	0.010	0.811	0.133
Non-Truck	0.969	0.010	0.926

==========

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correction: CARB P = 74 days N = 365 days

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	30 mph	35 mph
PM2.5	0.001488	0.001245
TOG	0.020799	0.017434
Diesel PM	0.000295	0.000264

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.811109

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002050

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	30 mph	35 mph
PM2.5	0.005324	0.005354

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.015426

==========END==========

File Name: Local Roadways 2029.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 6/14/2023 3:56:42 PM
Area: San Mateo (SF)
Analysis Year: 2029
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.021	0.379	0.541
Truck 2	0.010	0.772	0.127
Non-Truck	0.969	0.010	0.919

==========

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correction: CARB P = 74 days N = 365 days

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	25 mph	30 mph	35 mph
PM2.5	0.001530	0.001218	0.001021
TOG	0.022186	0.017779	0.014937
Diesel PM	0.000276	0.000240	0.000217

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.741304

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002050

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	25 mph	30 mph	35 mph
PM2.5	0.005295	0.005325	0.005342

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.015686

==========END==========

File Name: Haul Trucks 2021.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 12/22/2021 2:53:03 PM
Area: San Mateo (SF)
Analysis Year: 2021
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.000	0.460	0.540
Truck 2	1.000	0.871	0.114
Non-Truck	0.000	0.016	0.967

==========

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	35 mph
PM2.5	0.038502
TOG	0.138591
Diesel PM	0.040220

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.468710

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.004365

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.049152

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.095389

==========END==========

File Name: Local Roadways 2024.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 12/21/2021 2:02:23 PM
Area: San Mateo (SF)
Analysis Year: 2024
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.017	0.491	0.509
Truck 2	0.014	0.870	0.113
Non-Truck	0.969	0.017	0.957

==========

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	30 mph	35 mph
PM2.5	0.001595	0.001347
TOG	0.042629	0.035830
Diesel PM	0.000249	0.000240

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.148758

==========

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	0.016809

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.014921

==========END==========

File Name: Local Roadways 2027.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 12/23/2021 10:28:09 AM
Area: San Mateo (SF)
Analysis Year: 2027
Season: Annual

==========

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.017	0.509	0.491
Truck 2	0.014	0.871	0.111
Non-Truck	0.969	0.017	0.948

==========

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	25 mph	30 mph	35 mph
PM2.5	0.001732	0.001384	0.001172
TOG	0.049545	0.039654	0.033348
Diesel PM	0.000240	0.000222	0.000217

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.045395

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002044

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.016818

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.015032

==========END==========

Alexandria District Life Science , San Carlos, CA - Highway 101 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2024
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location

Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0009	0.0491	0.0254

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0413	0.0390	0.0023

Alexandria District Life Science , San Carlos, CA - Highway 101 Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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-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 (µg/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-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*	2024	10	0.0009	0.0491	0.0254	0.012	0.004	0.0001	0.02
1	1	0 - 1	2024	10	0.0009	0.0491	0.0254	0.146	0.046	0.0014	0.19
2	1	1 - 2	2025	10	0.0009	0.0491	0.0254	0.146	0.046	0.0014	0.19
3	1	2 - 3	2026	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
4	1	3 - 4	2027	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
5	1	4 - 5	2028	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
6	1	5 - 6	2029	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
7	1	6 - 7	2030	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
8	1	7 - 8	2031	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
9	1	8 - 9	2032	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
10	1	9 - 10	2033	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
11	1	10 - 11	2034	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
12	1	11 - 12	2035	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
13	1	12 - 13	2036	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
14	1	13 - 14	2037	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
15	1	14 - 15	2038	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
16	1	15 - 16	2039	3	0.0009	0.0491	0.0254	0.023	0.007	0.0002	0.03
17	1	16-17	2040	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
18	1	17-18	2041	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
19	1	18-19	2042	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
20	1	19-20	2043	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
21	1	20-21	2044	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
22	1	21-22	2045	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
23	1	22-23	2046	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
24	1	23-24	2047	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
25	1	24-25	2048	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
26	1	25-26	2049	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
27	1	26-27	2050	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
28	1	27-28	2051	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
29	1	28-29	2052	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
30	1	29-30	2053	1	0.0009	0.0491	0.0254	0.003	0.001	0.0000	0.00
Total Increased Cancer Risk								0.66	0.209	0.006	**0.88**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00018	0.04	0.04

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0145	0.8090	0.7424

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.7036	0.6625	0.0411

Alexandria District Life Science , San Carlos, CA - El Camino Real Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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-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 (µg/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-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*	2021	10	0.0145	0.8090	0.7424	0.198	0.063	0.0034	0.26
1	1	0 - 1	2021	10	0.0145	0.8090	0.7424	2.388	0.759	0.0410	3.19
2	1	1 - 2	2022	10	0.0145	0.8090	0.7424	2.388	0.759	0.0410	3.19
3	1	2 - 3	2023	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
4	1	3 - 4	2024	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
5	1	4 - 5	2025	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
6	1	5 - 6	2026	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
7	1	6 - 7	2027	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
8	1	7 - 8	2028	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
9	1	8 - 9	2029	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
10	1	9 - 10	2030	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
11	1	10 - 11	2031	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
12	1	11 - 12	2032	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
13	1	12 - 13	2033	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
14	1	13 - 14	2034	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
15	1	14 - 15	2035	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
16	1	15 - 16	2036	3	0.0145	0.8090	0.7424	0.376	0.119	0.0065	0.50
17	1	16-17	2037	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
18	1	17-18	2038	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
19	1	18-19	2039	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
20	1	19-20	2040	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
21	1	20-21	2041	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
22	1	21-22	2042	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
23	1	22-23	2043	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
24	1	23-24	2044	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
25	1	24-25	2045	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
26	1	25-26	2046	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
27	1	26-27	2047	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
28	1	27-28	2048	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
29	1	28-29	2049	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
30	1	29-30	2050	1	0.0145	0.8090	0.7424	0.042	0.013	0.0007	0.06
Total Increased Cancer Risk								10.82	3.438	0.186	**14.45**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00291	0.66	0.70

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Brittan Ave Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0013	0.0677	0.0605

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0497	0.0464	0.0033

Alexandria District Life Science , San Carlos, CA - Brittan Ave Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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-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 (µg/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-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*	2021	10	0.0013	0.0677	0.0605	0.018	0.005	0.0003	0.02
1	1	0 - 1	2021	10	0.0013	0.0677	0.0605	0.217	0.063	0.0033	0.28
2	1	1 - 2	2022	10	0.0013	0.0677	0.0605	0.217	0.063	0.0033	0.28
3	1	2 - 3	2023	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
4	1	3 - 4	2024	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
5	1	4 - 5	2025	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
6	1	5 - 6	2026	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
7	1	6 - 7	2027	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
8	1	7 - 8	2028	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
9	1	8 - 9	2029	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
10	1	9 - 10	2030	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
11	1	10 - 11	2031	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
12	1	11 - 12	2032	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
13	1	12 - 13	2033	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
14	1	13 - 14	2034	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
15	1	14 - 15	2035	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
16	1	15 - 16	2036	3	0.0013	0.0677	0.0605	0.034	0.010	0.0005	0.04
17	1	16-17	2037	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
18	1	17-18	2038	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
19	1	18-19	2039	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
20	1	19-20	2040	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
21	1	20-21	2041	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
22	1	21-22	2042	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
23	1	22-23	2043	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
24	1	23-24	2044	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
25	1	24-25	2045	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
26	1	25-26	2046	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
27	1	26-27	2047	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
28	1	27-28	2048	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
29	1	28-29	2049	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
30	1	29-30	2050	1	0.0013	0.0677	0.0605	0.004	0.001	0.0001	0.00
Total Increased Cancer Risk								0.98	0.288	0.015	**1.29**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00026	0.05	0.05

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Industrial Rd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location
Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0002	0.0102	0.0094

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0089	0.0084	0.0005

Alexandria District Life Science , San Carlos, CA - Industrial Road Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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-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 (µg/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-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*	2021	10	0.0002	0.0102	0.0094	0.003	0.001	0.0000	0.00
1	1	0 - 1	2021	10	0.0002	0.0102	0.0094	0.038	0.010	0.0005	0.05
2	1	1 - 2	2022	10	0.0002	0.0102	0.0094	0.038	0.010	0.0005	0.05
3	1	2 - 3	2023	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
4	1	3 - 4	2024	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
5	1	4 - 5	2025	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
6	1	5 - 6	2026	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
7	1	6 - 7	2027	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
8	1	7 - 8	2028	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
9	1	8 - 9	2029	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
10	1	9 - 10	2030	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
11	1	10 - 11	2031	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
12	1	11 - 12	2032	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
13	1	12 - 13	2033	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
14	1	13 - 14	2034	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
15	1	14 - 15	2035	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
16	1	15 - 16	2036	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
17	1	16-17	2037	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
18	1	17-18	2038	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
19	1	18-19	2039	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
20	1	19-20	2040	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
21	1	20-21	2041	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
22	1	21-22	2042	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
23	1	22-23	2043	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
24	1	23-24	2044	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
25	1	24-25	2045	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
26	1	25-26	2046	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
27	1	26-27	2047	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
28	1	27-28	2048	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
29	1	28-29	2049	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
30	1	29-30	2050	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.17	0.043	0.002	**0.22**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00005	0.01	0.01

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Old Country Road Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction Residential MEI Receptor (1.5 meter receptor height)

Emission Year	2021
Receptor Information	Construction Residential MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction Residential MEI location

Meteorological Conditions	
BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0017	0.0802	0.0732

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0697	0.0656	0.0041

Alexandria District Life Science , San Carlos, CA - Old Country Road Traffic Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
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-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 (µg/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-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*	2021	10	0.0002	0.0102	0.0094	0.003	0.001	0.0000	0.00
1	1	0 - 1	2021	10	0.0002	0.0102	0.0094	0.038	0.010	0.0005	0.05
2	1	1 - 2	2022	10	0.0002	0.0102	0.0094	0.038	0.010	0.0005	0.05
3	1	2 - 3	2023	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
4	1	3 - 4	2024	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
5	1	4 - 5	2025	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
6	1	5 - 6	2026	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
7	1	6 - 7	2027	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
8	1	7 - 8	2028	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
9	1	8 - 9	2029	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
10	1	9 - 10	2030	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
11	1	10 - 11	2031	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
12	1	11 - 12	2032	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
13	1	12 - 13	2033	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
14	1	13 - 14	2034	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
15	1	14 - 15	2035	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
16	1	15 - 16	2036	3	0.0002	0.0102	0.0094	0.006	0.002	0.0001	0.01
17	1	16-17	2037	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
18	1	17-18	2038	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
19	1	18-19	2039	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
20	1	19-20	2040	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
21	1	20-21	2041	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
22	1	21-22	2042	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
23	1	22-23	2043	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
24	1	23-24	2044	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
25	1	24-25	2045	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
26	1	25-26	2046	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
27	1	26-27	2047	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
28	1	27-28	2048	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
29	1	28-29	2049	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
30	1	29-30	2050	1	0.0002	0.0102	0.0094	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.17	0.043	0.002	**0.22**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00005	0.01	0.01

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Highway 101 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations - With MERV16
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0005	0.1249	0.0646

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0210	0.0198	0.0012

Alexandria District Life Science , San Carlos, CA - Highway 101 Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
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-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 (µg/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-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*	2024	10	0.0005	0.1249	0.0646	0.006	0.010	0.0003	0.02
1	1	0 - 1	2024	10	0.0005	0.1249	0.0646	0.074	0.117	0.0036	0.19
2	1	1 - 2	2025	10	0.0005	0.1249	0.0646	0.074	0.117	0.0036	0.19
3	1	2 - 3	2026	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
4	1	3 - 4	2027	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
5	1	4 - 5	2028	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
6	1	5 - 6	2029	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
7	1	6 - 7	2030	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
8	1	7 - 8	2031	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
9	1	8 - 9	2032	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
10	1	9 - 10	2033	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
11	1	10 - 11	2034	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
12	1	11 - 12	2035	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
13	1	12 - 13	2036	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
14	1	13 - 14	2037	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
15	1	14 - 15	2038	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
16	1	15 - 16	2039	3	0.0005	0.1249	0.0646	0.012	0.018	0.0006	0.03
17	1	16-17	2040	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
18	1	17-18	2041	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
19	1	18-19	2042	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
20	1	19-20	2043	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
21	1	20-21	2044	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
22	1	21-22	2045	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
23	1	22-23	2046	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
24	1	23-24	2047	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
25	1	24-25	2048	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
26	1	25-26	2049	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
27	1	26-27	2050	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
28	1	27-28	2051	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
29	1	28-29	2052	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
30	1	29-30	2053	1	0.0005	0.1249	0.0646	0.001	0.002	0.0001	0.00
Total Increased Cancer Risk								0.33	0.531	0.016	**0.88**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00009	0.02	0.02

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations - With MERV16
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0445	0.0408

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0087	0.0084	0.0003

Alexandria District Life Science , San Carlos, CA - El Camino Real Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
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-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 (µg/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-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*	2024	10	0.0001	0.0445	0.0408	0.001	0.003	0.0002	0.00
1	1	0 - 1	2024	10	0.0001	0.0445	0.0408	0.011	0.042	0.0023	0.05
2	1	1 - 2	2025	10	0.0001	0.0445	0.0408	0.011	0.042	0.0023	0.05
3	1	2 - 3	2026	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
4	1	3 - 4	2027	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
5	1	4 - 5	2028	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
6	1	5 - 6	2029	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
7	1	6 - 7	2030	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
8	1	7 - 8	2031	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
9	1	8 - 9	2032	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
10	1	9 - 10	2033	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
11	1	10 - 11	2034	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
12	1	11 - 12	2035	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
13	1	12 - 13	2036	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
14	1	13 - 14	2037	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
15	1	14 - 15	2038	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
16	1	15 - 16	2039	3	0.0001	0.0445	0.0408	0.002	0.007	0.0004	0.01
17	1	16-17	2040	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
18	1	17-18	2041	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
19	1	18-19	2042	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
20	1	19-20	2043	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
21	1	20-21	2044	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
22	1	21-22	2045	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
23	1	22-23	2046	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
24	1	23-24	2047	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
25	1	24-25	2048	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
26	1	25-26	2049	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
27	1	26-27	2050	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
28	1	27-28	2051	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
29	1	28-29	2052	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
30	1	29-30	2053	1	0.0001	0.0445	0.0408	0.000	0.001	0.0000	0.00
Total Increased Cancer Risk								0.05	0.189	0.010	**0.25**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.01	0.01

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Brittan Ave Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations - With MERV16
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0524	0.0471

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0087	0.0083	0.0004

Alexandria District Life Science , San Carlos, CA - Brittan Ave Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
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-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 (µg/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-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*	2024	10	0.0001	0.0524	0.0471	0.001	0.004	0.0002	0.01
1	1	0 - 1	2024	10	0.0001	0.0524	0.0471	0.011	0.049	0.0026	0.06
2	1	1 - 2	2025	10	0.0001	0.0524	0.0471	0.011	0.049	0.0026	0.06
3	1	2 - 3	2026	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
4	1	3 - 4	2027	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
5	1	4 - 5	2028	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
6	1	5 - 6	2029	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
7	1	6 - 7	2030	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
8	1	7 - 8	2031	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
9	1	8 - 9	2032	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
10	1	9 - 10	2033	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
11	1	10 - 11	2034	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
12	1	11 - 12	2035	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
13	1	12 - 13	2036	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
14	1	13 - 14	2037	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
15	1	14 - 15	2038	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
16	1	15 - 16	2039	3	0.0001	0.0524	0.0471	0.002	0.008	0.0004	0.01
17	1	16-17	2040	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
18	1	17-18	2041	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
19	1	18-19	2042	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
20	1	19-20	2043	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
21	1	20-21	2044	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
22	1	21-22	2045	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
23	1	22-23	2046	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
24	1	23-24	2047	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
25	1	24-25	2048	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
26	1	25-26	2049	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
27	1	26-27	2050	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
28	1	27-28	2051	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
29	1	28-29	2052	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
30	1	29-30	2053	1	0.0001	0.0524	0.0471	0.000	0.001	0.0000	0.00
Total Increased Cancer Risk								0.05	0.223	0.012	**0.28**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.01	0.01

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Industrial Rd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations - With MERV16
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0001	0.0447	0.0409

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0087	0.0084	0.0003

Alexandria District Life Science , San Carlos, CA - Industrial Rd Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
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-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 (µg/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-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*	2024	10	0.0001	0.0447	0.0409	0.001	0.003	0.0002	0.00
1	1	0 - 1	2024	10	0.0001	0.0447	0.0409	0.011	0.042	0.0023	0.05
2	1	1 - 2	2025	10	0.0001	0.0447	0.0409	0.011	0.042	0.0023	0.05
3	1	2 - 3	2026	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
4	1	3 - 4	2027	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
5	1	4 - 5	2028	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
6	1	5 - 6	2029	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
7	1	6 - 7	2030	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
8	1	7 - 8	2031	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
9	1	8 - 9	2032	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
10	1	9 - 10	2033	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
11	1	10 - 11	2034	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
12	1	11 - 12	2035	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
13	1	12 - 13	2036	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
14	1	13 - 14	2037	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
15	1	14 - 15	2038	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
16	1	15 - 16	2039	3	0.0001	0.0447	0.0409	0.002	0.007	0.0004	0.01
17	1	16-17	2040	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
18	1	17-18	2041	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
19	1	18-19	2042	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
20	1	19-20	2043	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
21	1	20-21	2044	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
22	1	21-22	2045	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
23	1	22-23	2046	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
24	1	23-24	2047	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
25	1	24-25	2048	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
26	1	25-26	2049	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
27	1	26-27	2050	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
28	1	27-28	2051	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
29	1	28-29	2052	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
30	1	29-30	2053	1	0.0001	0.0447	0.0409	0.000	0.001	0.0000	0.00
Total Increased Cancer Risk								0.05	0.190	0.010	**0.25**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.01	0.01

* Third trimester of pregnancy

Alexandria District Life Science , San Carlos, CA - Old Country Rd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations - With MERV16
at Daycare MEI Receptor (1 meter receptor height)

Emission Year	2024
Receptor Information	Daycare MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Daycare MEI location

Meteorological Conditions

BAAQMD San Carlos Airport Met Data	2011 - 2015
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Residential MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2011-2015	0.0000	0.0218	0.0199

Construction Residential MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2011-2015	0.0043	0.0041	0.0002

Alexandria District Life Science , San Carlos, CA - Old Country Rd Traffic Cancer Risk
Impacts at Daycare MEI - 1 meter receptor height - With MERV16
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-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 (µg/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-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*	2024	10	0.0000	0.0218	0.0199	0.000	0.002	0.0001	0.00
1	1	0 - 1	2024	10	0.0000	0.0218	0.0199	0.005	0.020	0.0011	0.03
2	1	1 - 2	2025	10	0.0000	0.0218	0.0199	0.005	0.020	0.0011	0.03
3	1	2 - 3	2026	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
4	1	3 - 4	2027	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
5	1	4 - 5	2028	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
6	1	5 - 6	2029	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
7	1	6 - 7	2030	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
8	1	7 - 8	2031	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
9	1	8 - 9	2032	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
10	1	9 - 10	2033	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
11	1	10 - 11	2034	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
12	1	11 - 12	2035	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
13	1	12 - 13	2036	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
14	1	13 - 14	2037	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
15	1	14 - 15	2038	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
16	1	15 - 16	2039	3	0.0000	0.0218	0.0199	0.001	0.003	0.0002	0.00
17	1	16-17	2040	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
18	1	17-18	2041	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
19	1	18-19	2042	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
20	1	19-20	2043	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
21	1	20-21	2044	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
22	1	21-22	2045	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
23	1	22-23	2046	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
24	1	23-24	2047	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
25	1	24-25	2048	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
26	1	25-26	2049	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
27	1	26-27	2050	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
28	1	27-28	2051	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
29	1	28-29	2052	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
30	1	29-30	2053	1	0.0000	0.0218	0.0199	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.02	0.093	0.005	**0.12**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.00	0.00

* Third trimester of pregnancy

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Brittan Ave
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_BRT	Brittan Ave Northbound	NB	2	787.5	0.49	13.3	43.7	3.4	30	10,400	10,486	112,867	3.039E-09	2.241E-09	6.8	3.16
DPM_SB_BRT	Brittan Ave Southbound	SB	2	792.0	0.49	13.3	43.7	3.4	30	10,400	10,546	113,512	3.039E-09	2.241E-09	6.8	3.16
									Total	20,800						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00054			

Emisson Factors from CT-EMFAC2021

2021 Hourly Traffic Volumes and DPM Emissions - DPM_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	401	2.95E-05	9	6.57%	683	5.02E-05	17	6.60%	686	5.05E-05
2	3.18%	331	2.43E-05	10	8.24%	857	6.30E-05	18	4.09%	425	3.13E-05
3	2.35%	244	1.79E-05	11	6.06%	631	4.64E-05	19	2.38%	247	1.82E-05
4	1.01%	105	7.69E-06	12	7.24%	753	5.53E-05	20	1.21%	125	9.22E-06
5	1.01%	105	7.69E-06	13	6.73%	700	5.15E-05	21	3.05%	317	2.33E-05
6	2.18%	226	1.67E-05	14	6.57%	683	5.02E-05	22	5.06%	526	3.87E-05
7	4.72%	491	3.61E-05	15	5.90%	613	4.51E-05	23	3.55%	369	2.72E-05
8	3.58%	373	2.74E-05	16	4.22%	439	3.23E-05	24	0.67%	70	5.12E-06
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	401	2.96E-05	9	6.57%	683	5.05E-05	17	6.60%	686	5.08E-05
2	3.18%	331	2.45E-05	10	8.24%	857	6.34E-05	18	4.09%	425	3.14E-05
3	2.35%	244	1.80E-05	11	6.06%	631	4.66E-05	19	2.38%	247	1.83E-05
4	1.01%	105	7.73E-06	12	7.24%	753	5.57E-05	20	1.21%	125	9.28E-06
5	1.01%	105	7.73E-06	13	6.73%	700	5.18E-05	21	3.05%	317	2.34E-05
6	2.18%	226	1.67E-05	14	6.57%	683	5.05E-05	22	5.06%	526	3.89E-05
7	4.72%	491	3.63E-05	15	5.90%	613	4.54E-05	23	3.55%	369	2.73E-05
8	3.58%	373	2.76E-05	16	4.22%	439	3.25E-05	24	0.67%	70	5.15E-06
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Brittan Ave
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

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
PM2.5_NB_BRT	Brittan Ave Northbound	NB	2	787.5	0.49	13.3	44	1.3	30	10,400	10,486	112,867	1.17E-08	8.60E-09	2.6	1.21
PM2.5_SB_BRT	Brittan Ave Southbound	SB	2	792.0	0.49	13.3	44	1.3	30	10,400	10,546	113,512	1.17E-08	8.60E-09	2.6	1.21
									Total	20,800						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.002076			

Emisson Factors from CT-EMFAC2021

2021 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	3.30E-05	9	7.12%	740	2.09E-04	17	7.43%	773	2.18E-04
2	0.42%	43	1.22E-05	10	4.38%	456	1.29E-04	18	8.23%	856	2.42E-04
3	0.37%	39	1.09E-05	11	4.65%	484	1.36E-04	19	5.72%	595	1.68E-04
4	0.17%	18	5.01E-06	12	5.89%	613	1.73E-04	20	4.31%	448	1.26E-04
5	0.45%	47	1.32E-05	13	6.17%	642	1.81E-04	21	3.25%	338	9.54E-05
6	0.85%	89	2.50E-05	14	6.05%	629	1.78E-04	22	3.31%	344	9.72E-05
7	3.73%	388	1.10E-04	15	7.06%	734	2.07E-04	23	2.48%	258	7.28E-05
8	7.77%	808	2.28E-04	16	7.18%	747	2.11E-04	24	1.87%	194	5.48E-05
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	3.32E-05	9	7.12%	740	2.10E-04	17	7.43%	773	2.19E-04
2	0.42%	43	1.23E-05	10	4.38%	456	1.29E-04	18	8.23%	856	2.43E-04
3	0.37%	39	1.10E-05	11	4.65%	484	1.37E-04	19	5.72%	595	1.69E-04
4	0.17%	18	5.04E-06	12	5.89%	613	1.74E-04	20	4.31%	448	1.27E-04
5	0.45%	47	1.33E-05	13	6.17%	642	1.82E-04	21	3.25%	338	9.59E-05
6	0.85%	89	2.52E-05	14	6.05%	629	1.79E-04	22	3.31%	344	9.77E-05
7	3.73%	388	1.10E-04	15	7.06%	734	2.08E-04	23	2.48%	258	7.32E-05
8	7.77%	808	2.29E-04	16	7.18%	747	2.12E-04	24	1.87%	194	5.51E-05
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Brittan Ave
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

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_NB_BRT	Brittan Ave Northbound	NB	2	787.5	0.49	13.3	44	1.3	30	10,400	10,486	112,867	1.87E-07	1.38E-07	2.6	1.21
TEXH_SB_BRT	Brittan Ave Southbound	SB	2	792.0	0.49	13.3	44	1.3	30	10,400	10,546	113,512	1.87E-07	1.38E-07	2.6	1.21
									Total	20,800						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.03329			

Emisson Factors from CT-EMFAC2021

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	5.29E-04	9	7.12%	740	3.35E-03	17	7.43%	773	3.50E-03
2	0.42%	43	1.96E-04	10	4.38%	456	2.06E-03	18	8.23%	856	3.87E-03
3	0.37%	39	1.75E-04	11	4.65%	484	2.19E-03	19	5.72%	595	2.69E-03
4	0.17%	18	8.03E-05	12	5.89%	613	2.77E-03	20	4.31%	448	2.03E-03
5	0.45%	47	2.12E-04	13	6.17%	642	2.90E-03	21	3.25%	338	1.53E-03
6	0.85%	89	4.01E-04	14	6.05%	629	2.85E-03	22	3.31%	344	1.56E-03
7	3.73%	388	1.76E-03	15	7.06%	734	3.32E-03	23	2.48%	258	1.17E-03
8	7.77%	808	3.65E-03	16	7.18%	747	3.38E-03	24	1.87%	194	8.79E-04
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	5.32E-04	9	7.12%	740	3.37E-03	17	7.43%	773	3.52E-03
2	0.42%	43	1.97E-04	10	4.38%	456	2.07E-03	18	8.23%	856	3.90E-03
3	0.37%	39	1.76E-04	11	4.65%	484	2.20E-03	19	5.72%	595	2.71E-03
4	0.17%	18	8.07E-05	12	5.89%	613	2.79E-03	20	4.31%	448	2.04E-03
5	0.45%	47	2.13E-04	13	6.17%	642	2.92E-03	21	3.25%	338	1.54E-03
6	0.85%	89	4.04E-04	14	6.05%	629	2.86E-03	22	3.31%	344	1.57E-03
7	3.73%	388	1.77E-03	15	7.06%	734	3.34E-03	23	2.48%	258	1.17E-03
8	7.77%	808	3.68E-03	16	7.18%	747	3.40E-03	24	1.87%	194	8.84E-04
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Brittan Ave
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

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_NB_BRT	Brittan Ave Northbound	NB	2	787.5	0.49	13.3	44	1.3	30	10,400	10,486	112,867	1.92E-07	1.42E-07	2.6	1.21
TEVAP_SB_BRT	Brittan Ave Southbound	SB	2	792.0	0.49	13.3	44	1.3	30	10,400	10,546	113,512	1.92E-07	1.42E-07	2.6	1.21
									Total	20,800						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle per Hour (g/hour)	1.02783			
Emissions per Vehicle per Mile (g/VMT)	0.03426			

Emisson Factors from CT-EMFAC2021

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	5.45E-04	9	7.12%	740	3.45E-03	17	7.43%	773	3.60E-03
2	0.42%	43	2.01E-04	10	4.38%	456	2.12E-03	18	8.23%	856	3.99E-03
3	0.37%	39	1.80E-04	11	4.65%	484	2.25E-03	19	5.72%	595	2.77E-03
4	0.17%	18	8.26E-05	12	5.89%	613	2.85E-03	20	4.31%	448	2.09E-03
5	0.45%	47	2.18E-04	13	6.17%	642	2.99E-03	21	3.25%	338	1.57E-03
6	0.85%	89	4.13E-04	14	6.05%	629	2.93E-03	22	3.31%	344	1.60E-03
7	3.73%	388	1.81E-03	15	7.06%	734	3.42E-03	23	2.48%	258	1.20E-03
8	7.77%	808	3.76E-03	16	7.18%	747	3.48E-03	24	1.87%	194	9.05E-04
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	5.48E-04	9	7.12%	740	3.47E-03	17	7.43%	773	3.62E-03
2	0.42%	43	2.02E-04	10	4.38%	456	2.14E-03	18	8.23%	856	4.01E-03
3	0.37%	39	1.81E-04	11	4.65%	484	2.27E-03	19	5.72%	595	2.79E-03
4	0.17%	18	8.31E-05	12	5.89%	613	2.87E-03	20	4.31%	448	2.10E-03
5	0.45%	47	2.19E-04	13	6.17%	642	3.01E-03	21	3.25%	338	1.58E-03
6	0.85%	89	4.16E-04	14	6.05%	629	2.95E-03	22	3.31%	344	1.61E-03
7	3.73%	388	1.82E-03	15	7.06%	734	3.44E-03	23	2.48%	258	1.21E-03
8	7.77%	808	3.78E-03	16	7.18%	747	3.50E-03	24	1.87%	194	9.10E-04
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Brittan Ave
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2021

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
FUG_NB_BRT	Brittan Ave Northbound	NB	2	787.5	0.49	13.3	44	1.3	30	10,400	10,486	112,867	1.25E-07	9.21E-08	2.6	1.21
FUG_SB_BRT	Brittan Ave Southbound	SB	2	792.0	0.49	13.3	44	1.3	30	10,400	10,546	113,512	1.25E-07	9.21E-08	2.6	1.21
									Total	20,800						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00536			
Road Dust - Emissions per Vehicle (g/VMT)	0.01482			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02224			

Emisson Factors from CT-EMFAC2021

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_BRT

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	3.53E-04	9	7.12%	740	2.24E-03	17	7.43%	773	2.34E-03
2	0.42%	43	1.31E-04	10	4.38%	456	1.38E-03	18	8.23%	856	2.59E-03
3	0.37%	39	1.17E-04	11	4.65%	484	1.46E-03	19	5.72%	595	1.80E-03
4	0.17%	18	5.36E-05	12	5.89%	613	1.85E-03	20	4.31%	448	1.35E-03
5	0.45%	47	1.42E-04	13	6.17%	642	1.94E-03	21	3.25%	338	1.02E-03
6	0.85%	89	2.68E-04	14	6.05%	629	1.90E-03	22	3.31%	344	1.04E-03
7	3.73%	388	1.17E-03	15	7.06%	734	2.22E-03	23	2.48%	258	7.80E-04
8	7.77%	808	2.44E-03	16	7.18%	747	2.26E-03	24	1.87%	194	5.87E-04
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_BRT

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	3.55E-04	9	7.12%	740	2.25E-03	17	7.43%	773	2.35E-03
2	0.42%	43	1.31E-04	10	4.38%	456	1.39E-03	18	8.23%	856	2.60E-03
3	0.37%	39	1.18E-04	11	4.65%	484	1.47E-03	19	5.72%	595	1.81E-03
4	0.17%	18	5.39E-05	12	5.89%	613	1.86E-03	20	4.31%	448	1.36E-03
5	0.45%	47	1.42E-04	13	6.17%	642	1.95E-03	21	3.25%	338	1.03E-03
6	0.85%	89	2.70E-04	14	6.05%	629	1.91E-03	22	3.31%	344	1.05E-03
7	3.73%	388	1.18E-03	15	7.06%	734	2.23E-03	23	2.48%	258	7.84E-04
8	7.77%	808	2.45E-03	16	7.18%	747	2.27E-03	24	1.87%	194	5.91E-04
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - El Camino Real
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_ECR	El Camino Real Northbound	NB	2	835.2	0.52	13.3	43.7	3.4	35	17,376	11,121	119,704	4.505E-09	3.322E-09	6.8	3.16
DPM_SB_ECR	El Camino Real Southbound	SB	3	828.8	0.51	17.0	55.7	3.4	35	17,376	14,067	151,417	3.534E-09	2.606E-09	6.8	3.16
									Total	34,752						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00048			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and DPM Emissions - DPM_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	669	4.63E-05	9	6.57%	1141	7.89E-05	17	6.60%	1147	7.94E-05
2	3.18%	553	3.83E-05	10	8.24%	1432	9.91E-05	18	4.09%	710	4.91E-05
3	2.35%	407	2.82E-05	11	6.06%	1054	7.29E-05	19	2.38%	413	2.86E-05
4	1.01%	175	1.21E-05	12	7.24%	1257	8.70E-05	20	1.21%	210	1.45E-05
5	1.01%	175	1.21E-05	13	6.73%	1170	8.10E-05	21	3.05%	530	3.67E-05
6	2.18%	378	2.62E-05	14	6.57%	1141	7.89E-05	22	5.06%	879	6.08E-05
7	4.72%	821	5.68E-05	15	5.90%	1025	7.09E-05	23	3.55%	617	4.27E-05
8	3.58%	623	4.31E-05	16	4.22%	733	5.08E-05	24	0.67%	116	8.06E-06
								Total		17,376	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	669	4.60E-05	9	6.57%	1141	7.83E-05	17	6.60%	1147	7.87E-05
2	3.18%	553	3.80E-05	10	8.24%	1432	9.83E-05	18	4.09%	710	4.88E-05
3	2.35%	407	2.80E-05	11	6.06%	1054	7.23E-05	19	2.38%	413	2.84E-05
4	1.01%	175	1.20E-05	12	7.24%	1257	8.63E-05	20	1.21%	210	1.44E-05
5	1.01%	175	1.20E-05	13	6.73%	1170	8.03E-05	21	3.05%	530	3.64E-05
6	2.18%	378	2.60E-05	14	6.57%	1141	7.83E-05	22	5.06%	879	6.04E-05
7	4.72%	821	5.64E-05	15	5.90%	1025	7.03E-05	23	3.55%	617	4.24E-05
8	3.58%	623	4.28E-05	16	4.22%	733	5.04E-05	24	0.67%	116	7.99E-06
								Total		17,376	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - El Camino Real
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

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
PM2.5_NB_ECR	El Camino Real Northbound	NB	2	835.2	0.52	13.3	44	1.3	35	17,376	11,121	119,704	1.64E-08	1.21E-08	2.6	1.21
PM2.5_SB_ECR	El Camino Real Southbound	SB	3	828.8	0.51	17.0	56	1.3	35	17,376	14,067	151,417	1.28E-08	9.47E-09	2.6	1.21
									Total	34,752						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001744			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	195	4.91E-05	9	7.12%	1237	3.11E-04	17	7.43%	1292	3.25E-04
2	0.42%	72	1.82E-05	10	4.38%	762	1.92E-04	18	8.23%	1431	3.60E-04
3	0.37%	65	1.62E-05	11	4.65%	808	2.03E-04	19	5.72%	994	2.50E-04
4	0.17%	30	7.45E-06	12	5.89%	1024	2.57E-04	20	4.31%	748	1.88E-04
5	0.45%	78	1.97E-05	13	6.17%	1073	2.70E-04	21	3.25%	565	1.42E-04
6	0.85%	148	3.73E-05	14	6.05%	1051	2.64E-04	22	3.31%	575	1.45E-04
7	3.73%	648	1.63E-04	15	7.06%	1226	3.08E-04	23	2.48%	431	1.08E-04
8	7.77%	1349	3.39E-04	16	7.18%	1248	3.14E-04	24	1.87%	325	8.16E-05
								Total		17,376	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	195	4.87E-05	9	7.12%	1237	3.09E-04	17	7.43%	1292	3.22E-04
2	0.42%	72	1.80E-05	10	4.38%	762	1.90E-04	18	8.23%	1431	3.57E-04
3	0.37%	65	1.61E-05	11	4.65%	808	2.02E-04	19	5.72%	994	2.48E-04
4	0.17%	30	7.40E-06	12	5.89%	1024	2.55E-04	20	4.31%	748	1.87E-04
5	0.45%	78	1.95E-05	13	6.17%	1073	2.68E-04	21	3.25%	565	1.41E-04
6	0.85%	148	3.70E-05	14	6.05%	1051	2.62E-04	22	3.31%	575	1.44E-04
7	3.73%	648	1.62E-04	15	7.06%	1226	3.06E-04	23	2.48%	431	1.08E-04
8	7.77%	1349	3.37E-04	16	7.18%	1248	3.11E-04	24	1.87%	325	8.10E-05
								Total		17,376	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - El Camino Real
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

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_NB_ECR	El Camino Real Northbound	NB	2	835.2	0.52	13.3	44	1.3	35	17,376	11,121	119,704	2.60E-07	1.92E-07	2.6	1.21
TEXH_SB_ECR	El Camino Real Southbound	SB	3	828.8	0.51	17.0	56	1.3	35	17,376	14,067	151,417	2.04E-07	1.50E-07	2.6	1.21
									Total	34,752						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02769			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	195	7.80E-04	9	7.12%	1237	4.94E-03	17	7.43%	1292	5.16E-03
2	0.42%	72	2.88E-04	10	4.38%	762	3.04E-03	18	8.23%	1431	5.71E-03
3	0.37%	65	2.58E-04	11	4.65%	808	3.23E-03	19	5.72%	994	3.97E-03
4	0.17%	30	1.18E-04	12	5.89%	1024	4.09E-03	20	4.31%	748	2.99E-03
5	0.45%	78	3.13E-04	13	6.17%	1073	4.28E-03	21	3.25%	565	2.25E-03
6	0.85%	148	5.92E-04	14	6.05%	1051	4.20E-03	22	3.31%	575	2.30E-03
7	3.73%	648	2.59E-03	15	7.06%	1226	4.89E-03	23	2.48%	431	1.72E-03
8	7.77%	1349	5.39E-03	16	7.18%	1248	4.98E-03	24	1.87%	325	1.30E-03
								Total		17,376	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	195	7.74E-04	9	7.12%	1237	4.90E-03	17	7.43%	1292	5.12E-03
2	0.42%	72	2.86E-04	10	4.38%	762	3.02E-03	18	8.23%	1431	5.67E-03
3	0.37%	65	2.56E-04	11	4.65%	808	3.20E-03	19	5.72%	994	3.94E-03
4	0.17%	30	1.17E-04	12	5.89%	1024	4.06E-03	20	4.31%	748	2.96E-03
5	0.45%	78	3.10E-04	13	6.17%	1073	4.25E-03	21	3.25%	565	2.24E-03
6	0.85%	148	5.87E-04	14	6.05%	1051	4.16E-03	22	3.31%	575	2.28E-03
7	3.73%	648	2.57E-03	15	7.06%	1226	4.86E-03	23	2.48%	431	1.71E-03
8	7.77%	1349	5.34E-03	16	7.18%	1248	4.94E-03	24	1.87%	325	1.29E-03
								Total		17,376	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - El Camino Real
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

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_NB_ECR	El Camino Real Northbound	NB	2	835.2	0.52	13.3	44	1.3	35	17,376	11,121	119,704	2.76E-07	2.03E-07	2.6	1.21
TEVAP_SB_ECR	El Camino Real Southbound	SB	3	828.8	0.51	17.0	56	1.3	35	17,376	14,067	151,417	2.16E-07	1.59E-07	2.6	1.21
									Total	34,752						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.02783			
Emissions per Vehicle per Mile (g/VMT)	0.02937			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	195	8.27E-04	9	7.12%	1237	5.24E-03	17	7.43%	1292	5.47E-03
2	0.42%	72	3.06E-04	10	4.38%	762	3.22E-03	18	8.23%	1431	6.06E-03
3	0.37%	65	2.74E-04	11	4.65%	808	3.42E-03	19	5.72%	994	4.21E-03
4	0.17%	30	1.26E-04	12	5.89%	1024	4.34E-03	20	4.31%	748	3.17E-03
5	0.45%	78	3.31E-04	13	6.17%	1073	4.54E-03	21	3.25%	565	2.39E-03
6	0.85%	148	6.28E-04	14	6.05%	1051	4.45E-03	22	3.31%	575	2.44E-03
7	3.73%	648	2.75E-03	15	7.06%	1226	5.19E-03	23	2.48%	431	1.82E-03
8	7.77%	1349	5.71E-03	16	7.18%	1248	5.28E-03	24	1.87%	325	1.37E-03
								Total		17,376	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	195	8.21E-04	9	7.12%	1237	5.20E-03	17	7.43%	1292	5.43E-03
2	0.42%	72	3.03E-04	10	4.38%	762	3.20E-03	18	8.23%	1431	6.01E-03
3	0.37%	65	2.71E-04	11	4.65%	808	3.39E-03	19	5.72%	994	4.18E-03
4	0.17%	30	1.25E-04	12	5.89%	1024	4.30E-03	20	4.31%	748	3.14E-03
5	0.45%	78	3.29E-04	13	6.17%	1073	4.51E-03	21	3.25%	565	2.37E-03
6	0.85%	148	6.23E-04	14	6.05%	1051	4.42E-03	22	3.31%	575	2.42E-03
7	3.73%	648	2.72E-03	15	7.06%	1226	5.15E-03	23	2.48%	431	1.81E-03
8	7.77%	1349	5.67E-03	16	7.18%	1248	5.24E-03	24	1.87%	325	1.36E-03
								Total		17,376	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - El Camino Real
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2021

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
FUG_NB_ECR	El Camino Real Northbound	NB	2	835.2	0.52	13.3	44	1.3	35	17,376	11,121	119,704	2.09E-07	1.54E-07	2.6	1.21
FUG_SB_ECR	El Camino Real Southbound	SB	3	828.8	0.51	17.0	56	1.3	35	17,376	14,067	151,417	1.64E-07	1.21E-07	2.6	1.21
									Total	34,752						

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)	0.00542			
Road Dust - Emissions per Vehicle (g/VMT)	0.01482			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02230			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_ECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	195	6.28E-04	9	7.12%	1237	3.98E-03	17	7.43%	1292	4.15E-03
2	0.42%	72	2.32E-04	10	4.38%	762	2.45E-03	18	8.23%	1431	4.60E-03
3	0.37%	65	2.08E-04	11	4.65%	808	2.60E-03	19	5.72%	994	3.20E-03
4	0.17%	30	9.53E-05	12	5.89%	1024	3.29E-03	20	4.31%	748	2.40E-03
5	0.45%	78	2.52E-04	13	6.17%	1073	3.45E-03	21	3.25%	565	1.82E-03
6	0.85%	148	4.76E-04	14	6.05%	1051	3.38E-03	22	3.31%	575	1.85E-03
7	3.73%	648	2.08E-03	15	7.06%	1226	3.94E-03	23	2.48%	431	1.39E-03
8	7.77%	1349	4.34E-03	16	7.18%	1248	4.01E-03	24	1.87%	325	1.04E-03
								Total		17,376	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_ECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	195	6.23E-04	9	7.12%	1237	3.94E-03	17	7.43%	1292	4.12E-03
2	0.42%	72	2.30E-04	10	4.38%	762	2.43E-03	18	8.23%	1431	4.56E-03
3	0.37%	65	2.06E-04	11	4.65%	808	2.58E-03	19	5.72%	994	3.17E-03
4	0.17%	30	9.46E-05	12	5.89%	1024	3.27E-03	20	4.31%	748	2.39E-03
5	0.45%	78	2.50E-04	13	6.17%	1073	3.42E-03	21	3.25%	565	1.80E-03
6	0.85%	148	4.73E-04	14	6.05%	1051	3.35E-03	22	3.31%	575	1.84E-03
7	3.73%	648	2.07E-03	15	7.06%	1226	3.91E-03	23	2.48%	431	1.37E-03
8	7.77%	1349	4.30E-03	16	7.18%	1248	3.98E-03	24	1.87%	325	1.04E-03
								Total		17,376	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Highway 101
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

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	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_101	Highway 101 Northbound	NB	5	483.2	0.30	24.3	79.7	3.4	64	102,440	11,736	126,325	2.157E-08	1.590E-08	6.8	3.16
DPM_SB_101	Highway 101 Southbound	SB	5	538.3	0.33	24.3	79.7	3.4	65	102,440	13,074	140,730	2.157E-08	1.590E-08	6.8	3.16
									Total	204,880						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	65	55	60	
Emissions per Vehicle (g/VMT)	0.00071	0.000542	0.000626	

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.55%	1592	9.44E-05	9	5.01%	5128	3.04E-04	17	6.79%	6953	3.14E-04
2	1.23%	1264	7.50E-05	10	5.01%	5129	3.04E-04	18	6.40%	6551	2.96E-04
3	1.12%	1147	6.80E-05	11	5.31%	5438	3.22E-04	19	5.50%	5638	2.94E-04
4	1.14%	1168	6.93E-05	12	5.78%	5919	3.51E-04	20	4.80%	4915	2.91E-04
5	1.49%	1530	9.07E-05	13	6.11%	6257	3.71E-04	21	4.06%	4158	2.47E-04
6	2.49%	2550	1.51E-04	14	6.29%	6446	3.82E-04	22	3.38%	3466	2.06E-04
7	3.59%	3678	2.18E-04	15	6.69%	6850	4.06E-04	23	2.68%	2748	1.63E-04
8	4.68%	4799	2.85E-04	16	6.87%	7037	3.67E-04	24	2.03%	2077	1.23E-04
								Total		102,440	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.49%	1527	1.01E-04	9	5.37%	5501	3.20E-04	17	6.15%	6305	4.17E-04
2	1.13%	1153	7.62E-05	10	5.38%	5507	3.64E-04	18	5.92%	6060	4.00E-04
3	1.01%	1035	6.83E-05	11	5.65%	5791	3.83E-04	19	5.25%	5374	3.55E-04
4	1.05%	1071	7.08E-05	12	5.71%	5854	3.87E-04	20	4.55%	4659	3.08E-04
5	1.60%	1635	1.08E-04	13	5.85%	5991	3.96E-04	21	3.95%	4050	2.68E-04
6	2.99%	3064	2.02E-04	14	6.00%	6145	4.06E-04	22	3.57%	3658	2.42E-04
7	4.47%	4576	3.02E-04	15	6.29%	6445	4.26E-04	23	2.91%	2982	1.97E-04
8	5.31%	5435	3.59E-04	16	6.27%	6427	4.25E-04	24	2.14%	2196	1.45E-04
								Total		102,440	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Highway 101
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

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
PM2.5_NB_101	Highway 101 Northbound	NB	5	483.2	0.30	24.3	80	1.3	63.75	102,440	11,736	126,325	5.19E-08	3.83E-08	2.6	1.21
PM2.5_SB_101	Highway 101 Southbound	SB	5	538.3	0.33	24.3	80	1.3	64.791667	102,440	13,074	140,730	5.19E-08	3.83E-08	2.6	1.21
									Total	204,880						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	65	55	60	
Emissions per Vehicle (g/VMT)	0.001711	0.00136	0.001503	

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.55%	1592	2.27E-04	9	5.01%	5128	7.32E-04	17	6.79%	6953	7.88E-04
2	1.23%	1264	1.80E-04	10	5.01%	5129	7.32E-04	18	6.40%	6551	7.43E-04
3	1.12%	1147	1.64E-04	11	5.31%	5438	7.76E-04	19	5.50%	5638	7.07E-04
4	1.14%	1168	1.67E-04	12	5.78%	5919	8.45E-04	20	4.80%	4915	7.01E-04
5	1.49%	1530	2.18E-04	13	6.11%	6257	8.93E-04	21	4.06%	4158	5.93E-04
6	2.49%	2550	3.64E-04	14	6.29%	6446	9.20E-04	22	3.38%	3466	4.95E-04
7	3.59%	3678	5.25E-04	15	6.69%	6850	9.77E-04	23	2.68%	2748	3.92E-04
8	4.68%	4799	6.85E-04	16	6.87%	7037	8.82E-04	24	2.03%	2077	2.96E-04
								Total		102,440	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.49%	1527	2.43E-04	9	5.37%	5501	7.68E-04	17	6.15%	6305	1.00E-03
2	1.13%	1153	1.83E-04	10	5.38%	5507	8.75E-04	18	5.92%	6060	9.63E-04
3	1.01%	1035	1.64E-04	11	5.65%	5791	9.21E-04	19	5.25%	5374	8.54E-04
4	1.05%	1071	1.70E-04	12	5.71%	5854	9.31E-04	20	4.55%	4659	7.41E-04
5	1.60%	1635	2.60E-04	13	5.85%	5991	9.52E-04	21	3.95%	4050	6.44E-04
6	2.99%	3064	4.87E-04	14	6.00%	6145	9.77E-04	22	3.57%	3658	5.82E-04
7	4.47%	4576	7.27E-04	15	6.29%	6445	1.02E-03	23	2.91%	2982	4.74E-04
8	5.31%	5435	8.64E-04	16	6.27%	6427	1.02E-03	24	2.14%	2196	3.49E-04
								Total		102,440	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Highway 101
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

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_NB_101	Highway 101 Northbound	NB	5	483.2	0.30	24.3	80	1.3	63.75	102,440	11,736	126,325	5.95E-07	4.39E-07	2.6	1.21
TEXH_SB_101	Highway 101 Southbound	SB	5	538.3	0.33	24.3	80	1.3	64.791667	102,440	13,074	140,730	5.95E-07	4.39E-07	2.6	1.21
									Total	204,880						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	65	55	60	
Emissions per Vehicle (g/VMT)	0.01961	0.01676	0.01773	

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.55%	1592	2.60E-03	9	5.01%	5128	8.39E-03	17	6.79%	6953	9.72E-03
2	1.23%	1264	2.07E-03	10	5.01%	5129	8.39E-03	18	6.40%	6551	9.16E-03
3	1.12%	1147	1.88E-03	11	5.31%	5438	8.90E-03	19	5.50%	5638	8.34E-03
4	1.14%	1168	1.91E-03	12	5.78%	5919	9.68E-03	20	4.80%	4915	8.04E-03
5	1.49%	1530	2.50E-03	13	6.11%	6257	1.02E-02	21	4.06%	4158	6.80E-03
6	2.49%	2550	4.17E-03	14	6.29%	6446	1.05E-02	22	3.38%	3466	5.67E-03
7	3.59%	3678	6.02E-03	15	6.69%	6850	1.12E-02	23	2.68%	2748	4.50E-03
8	4.68%	4799	7.85E-03	16	6.87%	7037	1.04E-02	24	2.03%	2077	3.40E-03
								Total		102,440	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.49%	1527	2.78E-03	9	5.37%	5501	9.06E-03	17	6.15%	6305	1.15E-02
2	1.13%	1153	2.10E-03	10	5.38%	5507	1.00E-02	18	5.92%	6060	1.10E-02
3	1.01%	1035	1.89E-03	11	5.65%	5791	1.06E-02	19	5.25%	5374	9.79E-03
4	1.05%	1071	1.95E-03	12	5.71%	5854	1.07E-02	20	4.55%	4659	8.49E-03
5	1.60%	1635	2.98E-03	13	5.85%	5991	1.09E-02	21	3.95%	4050	7.38E-03
6	2.99%	3064	5.58E-03	14	6.00%	6145	1.12E-02	22	3.57%	3658	6.67E-03
7	4.47%	4576	8.34E-03	15	6.29%	6445	1.17E-02	23	2.91%	2982	5.43E-03
8	5.31%	5435	9.90E-03	16	6.27%	6427	1.17E-02	24	2.14%	2196	4.00E-03
								Total		102,440	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Highway 101
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

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_NB_101	Highway 101 Northbound	NB	5	483.2	0.30	24.3	80	1.3	63.75	102,440	11,736	126,325	4.04E-07	2.98E-07	2.6	1.21
TEVAP_SB_101	Highway 101 Southbound	SB	5	538.3	0.33	24.3	80	1.3	64.791667	102,440	13,074	140,730	4.04E-07	2.98E-07	2.6	1.21
									Total	204,880						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	65	55	60	
Emissions per Vehicle per Hour (g/hour)	0.86675	0.86675	0.86675	
Emissions per Vehicle per Mile (g/VMT)	0.01333	0.01576	0.01445	

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.55%	1592	1.77E-03	9	5.01%	5128	5.70E-03	17	6.79%	6953	9.14E-03
2	1.23%	1264	1.41E-03	10	5.01%	5129	5.70E-03	18	6.40%	6551	8.61E-03
3	1.12%	1147	1.28E-03	11	5.31%	5438	6.05E-03	19	5.50%	5638	6.79E-03
4	1.14%	1168	1.30E-03	12	5.78%	5919	6.58E-03	20	4.80%	4915	5.47E-03
5	1.49%	1530	1.70E-03	13	6.11%	6257	6.96E-03	21	4.06%	4158	4.62E-03
6	2.49%	2550	2.84E-03	14	6.29%	6446	7.17E-03	22	3.38%	3466	3.85E-03
7	3.59%	3678	4.09E-03	15	6.69%	6850	7.62E-03	23	2.68%	2748	3.06E-03
8	4.68%	4799	5.34E-03	16	6.87%	7037	8.48E-03	24	2.03%	2077	2.31E-03
								Total		102,440	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.49%	1527	1.89E-03	9	5.37%	5501	7.38E-03	17	6.15%	6305	7.81E-03
2	1.13%	1153	1.43E-03	10	5.38%	5507	6.82E-03	18	5.92%	6060	7.51E-03
3	1.01%	1035	1.28E-03	11	5.65%	5791	7.18E-03	19	5.25%	5374	6.66E-03
4	1.05%	1071	1.33E-03	12	5.71%	5854	7.25E-03	20	4.55%	4659	5.77E-03
5	1.60%	1635	2.03E-03	13	5.85%	5991	7.42E-03	21	3.95%	4050	5.02E-03
6	2.99%	3064	3.80E-03	14	6.00%	6145	7.61E-03	22	3.57%	3658	4.53E-03
7	4.47%	4576	5.67E-03	15	6.29%	6445	7.98E-03	23	2.91%	2982	3.69E-03
8	5.31%	5435	6.73E-03	16	6.27%	6427	7.96E-03	24	2.14%	2196	2.72E-03
								Total		102,440	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Highway 101
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

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
FUG_NB_101	Highway 101 Northbound	NB	5	483.2	0.30	24.3	80	1.3	63.75	102,440	11,736	126,325	3.73E-07	2.75E-07	2.6	1.21
FUG_SB_101	Highway 101 Southbound	SB	5	538.3	0.33	24.3	80	1.3	64.791667	102,440	13,074	140,730	3.73E-07	2.75E-07	2.6	1.21
									Total	204,880						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	65	55	60	
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210	0.00210	0.00210	
Brake Wear - Emissions per Vehicle (g/VMT)	0.00188	0.00248	0.00218	
Road Dust - Emissions per Vehicle (g/VMT)	0.00830	0.00830	0.00830	
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01228	0.01288	0.01258	

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.55%	1592	1.63E-03	9	5.01%	5128	5.25E-03	17	6.79%	6953	7.47E-03
2	1.23%	1264	1.30E-03	10	5.01%	5129	5.25E-03	18	6.40%	6551	7.04E-03
3	1.12%	1147	1.18E-03	11	5.31%	5438	5.57E-03	19	5.50%	5638	5.92E-03
4	1.14%	1168	1.20E-03	12	5.78%	5919	6.06E-03	20	4.80%	4915	5.04E-03
5	1.49%	1530	1.57E-03	13	6.11%	6257	6.41E-03	21	4.06%	4158	4.26E-03
6	2.49%	2550	2.61E-03	14	6.29%	6446	6.60E-03	22	3.38%	3466	3.55E-03
7	3.59%	3678	3.77E-03	15	6.69%	6850	7.02E-03	23	2.68%	2748	2.82E-03
8	4.68%	4799	4.92E-03	16	6.87%	7037	7.38E-03	24	2.03%	2077	2.13E-03
								Total		102,440	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.49%	1527	1.74E-03	9	5.37%	5501	6.43E-03	17	6.15%	6305	7.19E-03
2	1.13%	1153	1.32E-03	10	5.38%	5507	6.28E-03	18	5.92%	6060	6.92E-03
3	1.01%	1035	1.18E-03	11	5.65%	5791	6.61E-03	19	5.25%	5374	6.13E-03
4	1.05%	1071	1.22E-03	12	5.71%	5854	6.68E-03	20	4.55%	4659	5.32E-03
5	1.60%	1635	1.87E-03	13	5.85%	5991	6.84E-03	21	3.95%	4050	4.62E-03
6	2.99%	3064	3.50E-03	14	6.00%	6145	7.01E-03	22	3.57%	3658	4.17E-03
7	4.47%	4576	5.22E-03	15	6.29%	6445	7.35E-03	23	2.91%	2982	3.40E-03
8	5.31%	5435	6.20E-03	16	6.27%	6427	7.33E-03	24	2.14%	2196	2.51E-03
								Total		102,440	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Industrial Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

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	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_IND	Industrial Road Northbound	NB	2	532.6	0.33	13.3	43.7	3.4	35	10,400	7,092	76,334	2.696E-09	1.988E-09	6.8	3.16
DPM_SB_IND	Industrial Road Southbound	SB	2	555.1	0.34	13.3	43.7	3.4	35	10,400	7,391	79,559	2.696E-09	1.988E-09	6.8	3.16
									Total	20,800						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00048			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and DPM Emissions - DPM_NB_IND

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	401	1.77E-05	9	6.57%	683	3.01E-05	17	6.60%	686	3.03E-05
2	3.18%	331	1.46E-05	10	8.24%	857	3.78E-05	18	4.09%	425	1.88E-05
3	2.35%	244	1.08E-05	11	6.06%	631	2.78E-05	19	2.38%	247	1.09E-05
4	1.01%	105	4.61E-06	12	7.24%	753	3.32E-05	20	1.21%	125	5.53E-06
5	1.01%	105	4.61E-06	13	6.73%	700	3.09E-05	21	3.05%	317	1.40E-05
6	2.18%	226	9.99E-06	14	6.57%	683	3.01E-05	22	5.06%	526	2.32E-05
7	4.72%	491	2.17E-05	15	5.90%	613	2.71E-05	23	3.55%	369	1.63E-05
8	3.58%	373	1.65E-05	16	4.22%	439	1.94E-05	24	0.67%	70	3.07E-06
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_IND

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	401	1.84E-05	9	6.57%	683	3.14E-05	17	6.60%	686	3.16E-05
2	3.18%	331	1.52E-05	10	8.24%	857	3.94E-05	18	4.09%	425	1.95E-05
3	2.35%	244	1.12E-05	11	6.06%	631	2.90E-05	19	2.38%	247	1.14E-05
4	1.01%	105	4.81E-06	12	7.24%	753	3.46E-05	20	1.21%	125	5.77E-06
5	1.01%	105	4.81E-06	13	6.73%	700	3.22E-05	21	3.05%	317	1.46E-05
6	2.18%	226	1.04E-05	14	6.57%	683	3.14E-05	22	5.06%	526	2.42E-05
7	4.72%	491	2.26E-05	15	5.90%	613	2.82E-05	23	3.55%	369	1.70E-05
8	3.58%	373	1.71E-05	16	4.22%	439	2.02E-05	24	0.67%	70	3.20E-06
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Industrial Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

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
PM2.5_NB_IND	Industrial Road Northbound	NB	2	532.6	0.33	13.3	44	1.3	35	10,400	7,092	76,334	9.80E-09	7.22E-09	2.6	1.21
PM2.5_SB_IND	Industrial Road Southbound	SB	2	555.1	0.34	13.3	44	1.3	35	10,400	7,391	79,559	9.80E-09	7.22E-09	2.6	1.21
									Total	20,800						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001744			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_IND

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	1.87E-05	9	7.12%	740	1.19E-04	17	7.43%	773	1.24E-04
2	0.42%	43	6.93E-06	10	4.38%	456	7.31E-05	18	8.23%	856	1.37E-04
3	0.37%	39	6.20E-06	11	4.65%	484	7.75E-05	19	5.72%	595	9.54E-05
4	0.17%	18	2.84E-06	12	5.89%	613	9.83E-05	20	4.31%	448	7.18E-05
5	0.45%	47	7.51E-06	13	6.17%	642	1.03E-04	21	3.25%	338	5.42E-05
6	0.85%	89	1.42E-05	14	6.05%	629	1.01E-04	22	3.31%	344	5.52E-05
7	3.73%	388	6.22E-05	15	7.06%	734	1.18E-04	23	2.48%	258	4.14E-05
8	7.77%	808	1.29E-04	16	7.18%	747	1.20E-04	24	1.87%	194	3.11E-05
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_IND

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	1.95E-05	9	7.12%	740	1.24E-04	17	7.43%	773	1.29E-04
2	0.42%	43	7.22E-06	10	4.38%	456	7.62E-05	18	8.23%	856	1.43E-04
3	0.37%	39	6.46E-06	11	4.65%	484	8.08E-05	19	5.72%	595	9.94E-05
4	0.17%	18	2.97E-06	12	5.89%	613	1.02E-04	20	4.31%	448	7.48E-05
5	0.45%	47	7.83E-06	13	6.17%	642	1.07E-04	21	3.25%	338	5.65E-05
6	0.85%	89	1.48E-05	14	6.05%	629	1.05E-04	22	3.31%	344	5.76E-05
7	3.73%	388	6.49E-05	15	7.06%	734	1.23E-04	23	2.48%	258	4.31E-05
8	7.77%	808	1.35E-04	16	7.18%	747	1.25E-04	24	1.87%	194	3.25E-05
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Industrial Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

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_NB_IND	Industrial Road Northbound	NB	2	532.6	0.33	13.3	44	1.3	35	10,400	7,092	76,334	1.56E-07	1.15E-07	2.6	1.21
TEXH_SB_IND	Industrial Road Southbound	SB	2	555.1	0.34	13.3	44	1.3	35	10,400	7,391	79,559	1.56E-07	1.15E-07	2.6	1.21
									Total	20,800						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02769			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_IND

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	2.98E-04	9	7.12%	740	1.88E-03	17	7.43%	773	1.97E-03
2	0.42%	43	1.10E-04	10	4.38%	456	1.16E-03	18	8.23%	856	2.18E-03
3	0.37%	39	9.84E-05	11	4.65%	484	1.23E-03	19	5.72%	595	1.51E-03
4	0.17%	18	4.52E-05	12	5.89%	613	1.56E-03	20	4.31%	448	1.14E-03
5	0.45%	47	1.19E-04	13	6.17%	642	1.63E-03	21	3.25%	338	8.60E-04
6	0.85%	89	2.26E-04	14	6.05%	629	1.60E-03	22	3.31%	344	8.77E-04
7	3.73%	388	9.88E-04	15	7.06%	734	1.87E-03	23	2.48%	258	6.57E-04
8	7.77%	808	2.06E-03	16	7.18%	747	1.90E-03	24	1.87%	194	4.95E-04
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_IND

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	3.10E-04	9	7.12%	740	1.96E-03	17	7.43%	773	2.05E-03
2	0.42%	43	1.15E-04	10	4.38%	456	1.21E-03	18	8.23%	856	2.27E-03
3	0.37%	39	1.03E-04	11	4.65%	484	1.28E-03	19	5.72%	595	1.58E-03
4	0.17%	18	4.71E-05	12	5.89%	613	1.63E-03	20	4.31%	448	1.19E-03
5	0.45%	47	1.24E-04	13	6.17%	642	1.70E-03	21	3.25%	338	8.97E-04
6	0.85%	89	2.35E-04	14	6.05%	629	1.67E-03	22	3.31%	344	9.14E-04
7	3.73%	388	1.03E-03	15	7.06%	734	1.95E-03	23	2.48%	258	6.84E-04
8	7.77%	808	2.14E-03	16	7.18%	747	1.98E-03	24	1.87%	194	5.15E-04
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Industrial Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

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_NB_IND	Industrial Road Northbound	NB	2	532.6	0.33	13.3	44	1.3	35	10,400	7,092	76,334	1.65E-07	1.22E-07	2.6	1.21
TEVAP_SB_IND	Industrial Road Southbound	SB	2	555.1	0.34	13.3	44	1.3	35	10,400	7,391	79,559	1.65E-07	1.22E-07	2.6	1.21
									Total	20,800						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.02783			
Emissions per Vehicle per Mile (g/VMT)	0.02937			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_IND

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	3.16E-04	9	7.12%	740	2.00E-03	17	7.43%	773	2.09E-03
2	0.42%	43	1.17E-04	10	4.38%	456	1.23E-03	18	8.23%	856	2.31E-03
3	0.37%	39	1.04E-04	11	4.65%	484	1.31E-03	19	5.72%	595	1.61E-03
4	0.17%	18	4.79E-05	12	5.89%	613	1.65E-03	20	4.31%	448	1.21E-03
5	0.45%	47	1.27E-04	13	6.17%	642	1.73E-03	21	3.25%	338	9.13E-04
6	0.85%	89	2.40E-04	14	6.05%	629	1.70E-03	22	3.31%	344	9.30E-04
7	3.73%	388	1.05E-03	15	7.06%	734	1.98E-03	23	2.48%	258	6.96E-04
8	7.77%	808	2.18E-03	16	7.18%	747	2.02E-03	24	1.87%	194	5.25E-04
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_IND

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	3.29E-04	9	7.12%	740	2.08E-03	17	7.43%	773	2.18E-03
2	0.42%	43	1.22E-04	10	4.38%	456	1.28E-03	18	8.23%	856	2.41E-03
3	0.37%	39	1.09E-04	11	4.65%	484	1.36E-03	19	5.72%	595	1.67E-03
4	0.17%	18	4.99E-05	12	5.89%	613	1.72E-03	20	4.31%	448	1.26E-03
5	0.45%	47	1.32E-04	13	6.17%	642	1.81E-03	21	3.25%	338	9.51E-04
6	0.85%	89	2.50E-04	14	6.05%	629	1.77E-03	22	3.31%	344	9.69E-04
7	3.73%	388	1.09E-03	15	7.06%	734	2.07E-03	23	2.48%	258	7.26E-04
8	7.77%	808	2.27E-03	16	7.18%	747	2.10E-03	24	1.87%	194	5.47E-04
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Industrial Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2021**

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
FUG_NB_IND	Industrial Road Northbound	NB	2	532.6	0.33	13.3	44	1.3	35	10,400	7,092	76,334	1.25E-07	9.23E-08	2.6	1.21
FUG_SB_IND	Industrial Road Southbound	SB	2	555.1	0.34	13.3	44	1.3	35	10,400	7,391	79,559	1.25E-07	9.23E-08	2.6	1.21
									Total	20,800						

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)	0.00542			
Road Dust - Emissions per Vehicle (g/VMT)	0.01482			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02230			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_IND

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	117	2.40E-04	9	7.12%	740	1.52E-03	17	7.43%	773	1.58E-03
2	0.42%	43	8.86E-05	10	4.38%	456	9.34E-04	18	8.23%	856	1.76E-03
3	0.37%	39	7.93E-05	11	4.65%	484	9.91E-04	19	5.72%	595	1.22E-03
4	0.17%	18	3.64E-05	12	5.89%	613	1.26E-03	20	4.31%	448	9.18E-04
5	0.45%	47	9.61E-05	13	6.17%	642	1.32E-03	21	3.25%	338	6.93E-04
6	0.85%	89	1.82E-04	14	6.05%	629	1.29E-03	22	3.31%	344	7.06E-04
7	3.73%	388	7.96E-04	15	7.06%	734	1.50E-03	23	2.48%	258	5.29E-04
8	7.77%	808	1.66E-03	16	7.18%	747	1.53E-03	24	1.87%	194	3.98E-04
								Total		10,400	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_IND

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	117	2.50E-04	9	7.12%	740	1.58E-03	17	7.43%	773	1.65E-03
2	0.42%	43	9.23E-05	10	4.38%	456	9.74E-04	18	8.23%	856	1.83E-03
3	0.37%	39	8.26E-05	11	4.65%	484	1.03E-03	19	5.72%	595	1.27E-03
4	0.17%	18	3.79E-05	12	5.89%	613	1.31E-03	20	4.31%	448	9.56E-04
5	0.45%	47	1.00E-04	13	6.17%	642	1.37E-03	21	3.25%	338	7.22E-04
6	0.85%	89	1.90E-04	14	6.05%	629	1.34E-03	22	3.31%	344	7.36E-04
7	3.73%	388	8.29E-04	15	7.06%	734	1.57E-03	23	2.48%	258	5.51E-04
8	7.77%	808	1.73E-03	16	7.18%	747	1.60E-03	24	1.87%	194	4.15E-04
								Total		10,400	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Old County Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

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	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_OLD	Old Country Road Northbound	NB	1	851.3	0.53	9.7	31.7	3.4	35	5,500	8,222	88,496	1.966E-09	1.450E-09	6.8	3.16
DPM_SB_OLD	Old Country Road Southbound	SB	1	851.0	0.53	9.7	31.7	3.4	35	5,500	8,219	88,464	1.966E-09	1.450E-09	6.8	3.16
									Total	11,000						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00048			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and DPM Emissions - DPM_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.85%	212	1.49E-05	9	6.57%	361	2.55E-05	17	6.60%	363	2.56E-05
2	3.18%	175	1.23E-05	10	8.24%	453	3.20E-05	18	4.09%	225	1.59E-05
3	2.35%	129	9.10E-06	11	6.06%	334	2.35E-05	19	2.38%	131	9.23E-06
4	1.01%	55	3.90E-06	12	7.24%	398	2.81E-05	20	1.21%	66	4.68E-06
5	1.01%	55	3.90E-06	13	6.73%	370	2.61E-05	21	3.05%	168	1.18E-05
6	2.18%	120	8.45E-06	14	6.57%	361	2.55E-05	22	5.06%	278	1.96E-05
7	4.72%	260	1.83E-05	15	5.90%	324	2.29E-05	23	3.55%	195	1.38E-05
8	3.58%	197	1.39E-05	16	4.22%	232	1.64E-05	24	0.67%	37	2.60E-06
								Total		5,500	

2021 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.85%	212	1.49E-05	9	6.57%	361	2.55E-05	17	6.60%	363	2.56E-05
2	3.18%	175	1.23E-05	10	8.24%	453	3.20E-05	18	4.09%	225	1.58E-05
3	2.35%	129	9.09E-06	11	6.06%	334	2.35E-05	19	2.38%	131	9.22E-06
4	1.01%	55	3.90E-06	12	7.24%	398	2.81E-05	20	1.21%	66	4.68E-06
5	1.01%	55	3.90E-06	13	6.73%	370	2.61E-05	21	3.05%	168	1.18E-05
6	2.18%	120	8.44E-06	14	6.57%	361	2.55E-05	22	5.06%	278	1.96E-05
7	4.72%	260	1.83E-05	15	5.90%	324	2.29E-05	23	3.55%	195	1.38E-05
8	3.58%	197	1.39E-05	16	4.22%	232	1.64E-05	24	0.67%	37	2.60E-06
								Total		5,500	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Old County Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

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
PM2.5_NB_OLD	Old Country Road Northbound	NB	1	851.3	0.53	9.7	32	1.3	35	5,500	8,222	88,496	7.14E-09	5.27E-09	2.6	1.21
PM2.5_SB_OLD	Old Country Road Southbound	SB	1	851.0	0.53	9.7	32	1.3	35	5,500	8,219	88,464	7.14E-09	5.27E-09	2.6	1.21
									Total	11,000						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001744			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	62	1.58E-05	9	7.12%	392	1.00E-04	17	7.43%	409	1.05E-04
2	0.42%	23	5.86E-06	10	4.38%	241	6.18E-05	18	8.23%	453	1.16E-04
3	0.37%	20	5.24E-06	11	4.65%	256	6.55E-05	19	5.72%	315	8.07E-05
4	0.17%	9	2.40E-06	12	5.89%	324	8.31E-05	20	4.31%	237	6.07E-05
5	0.45%	25	6.35E-06	13	6.17%	340	8.70E-05	21	3.25%	179	4.58E-05
6	0.85%	47	1.20E-05	14	6.05%	333	8.53E-05	22	3.31%	182	4.67E-05
7	3.73%	205	5.26E-05	15	7.06%	388	9.95E-05	23	2.48%	136	3.50E-05
8	7.77%	427	1.09E-04	16	7.18%	395	1.01E-04	24	1.87%	103	2.63E-05
								Total		5,500	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	62	1.58E-05	9	7.12%	392	1.00E-04	17	7.43%	409	1.05E-04
2	0.42%	23	5.86E-06	10	4.38%	241	6.18E-05	18	8.23%	453	1.16E-04
3	0.37%	20	5.24E-06	11	4.65%	256	6.55E-05	19	5.72%	315	8.06E-05
4	0.17%	9	2.40E-06	12	5.89%	324	8.30E-05	20	4.31%	237	6.07E-05
5	0.45%	25	6.35E-06	13	6.17%	340	8.70E-05	21	3.25%	179	4.58E-05
6	0.85%	47	1.20E-05	14	6.05%	333	8.53E-05	22	3.31%	182	4.67E-05
7	3.73%	205	5.26E-05	15	7.06%	388	9.94E-05	23	2.48%	136	3.50E-05
8	7.77%	427	1.09E-04	16	7.18%	395	1.01E-04	24	1.87%	103	2.63E-05
								Total		5,500	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Old County Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2021

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_NB_OLD	Old Country Road Northbound	NB	1	851.3	0.53	9.7	32	1.3	35	5,500	8,222	88,496	1.13E-07	8.36E-08	2.6	1.21
TEXH_SB_OLD	Old Country Road Southbound	SB	1	851.0	0.53	9.7	32	1.3	35	5,500	8,219	88,464	1.13E-07	8.36E-08	2.6	1.21
									Total	11,000						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02769			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	62	2.52E-04	9	7.12%	392	1.59E-03	17	7.43%	409	1.66E-03
2	0.42%	23	9.30E-05	10	4.38%	241	9.81E-04	18	8.23%	453	1.84E-03
3	0.37%	20	8.32E-05	11	4.65%	256	1.04E-03	19	5.72%	315	1.28E-03
4	0.17%	9	3.82E-05	12	5.89%	324	1.32E-03	20	4.31%	237	9.63E-04
5	0.45%	25	1.01E-04	13	6.17%	340	1.38E-03	21	3.25%	179	7.27E-04
6	0.85%	47	1.91E-04	14	6.05%	333	1.35E-03	22	3.31%	182	7.41E-04
7	3.73%	205	8.35E-04	15	7.06%	388	1.58E-03	23	2.48%	136	5.55E-04
8	7.77%	427	1.74E-03	16	7.18%	395	1.61E-03	24	1.87%	103	4.18E-04
								Total		5,500	

2021 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	62	2.51E-04	9	7.12%	392	1.59E-03	17	7.43%	409	1.66E-03
2	0.42%	23	9.30E-05	10	4.38%	241	9.81E-04	18	8.23%	453	1.84E-03
3	0.37%	20	8.32E-05	11	4.65%	256	1.04E-03	19	5.72%	315	1.28E-03
4	0.17%	9	3.82E-05	12	5.89%	324	1.32E-03	20	4.31%	237	9.63E-04
5	0.45%	25	1.01E-04	13	6.17%	340	1.38E-03	21	3.25%	179	7.27E-04
6	0.85%	47	1.91E-04	14	6.05%	333	1.35E-03	22	3.31%	182	7.41E-04
7	3.73%	205	8.35E-04	15	7.06%	388	1.58E-03	23	2.48%	136	5.55E-04
8	7.77%	427	1.74E-03	16	7.18%	395	1.61E-03	24	1.87%	103	4.18E-04
								Total		5,500	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Old County Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2021

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_NB_OLD	Old Country Road Northbound	NB	1	851.3	0.53	9.7	32	1.3	35	5,500	8,222	88,496	1.20E-07	8.87E-08	2.6	1.21
TEVAP_SB_OLD	Old Country Road Southbound	SB	1	851.0	0.53	9.7	32	1.3	35	5,500	8,219	88,464	1.20E-07	8.87E-08	2.6	1.21
									Total	11,000						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.02783			
Emissions per Vehicle per Mile (g/VMT)	0.02937			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	62	2.67E-04	9	7.12%	392	1.69E-03	17	7.43%	409	1.76E-03
2	0.42%	23	9.86E-05	10	4.38%	241	1.04E-03	18	8.23%	453	1.95E-03
3	0.37%	20	8.83E-05	11	4.65%	256	1.10E-03	19	5.72%	315	1.36E-03
4	0.17%	9	4.05E-05	12	5.89%	324	1.40E-03	20	4.31%	237	1.02E-03
5	0.45%	25	1.07E-04	13	6.17%	340	1.47E-03	21	3.25%	179	7.71E-04
6	0.85%	47	2.02E-04	14	6.05%	333	1.44E-03	22	3.31%	182	7.86E-04
7	3.73%	205	8.86E-04	15	7.06%	388	1.67E-03	23	2.48%	136	5.89E-04
8	7.77%	427	1.84E-03	16	7.18%	395	1.70E-03	24	1.87%	103	4.43E-04
								Total		5,500	

2021 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	62	2.67E-04	9	7.12%	392	1.69E-03	17	7.43%	409	1.76E-03
2	0.42%	23	9.86E-05	10	4.38%	241	1.04E-03	18	8.23%	453	1.95E-03
3	0.37%	20	8.82E-05	11	4.65%	256	1.10E-03	19	5.72%	315	1.36E-03
4	0.17%	9	4.05E-05	12	5.89%	324	1.40E-03	20	4.31%	237	1.02E-03
5	0.45%	25	1.07E-04	13	6.17%	340	1.46E-03	21	3.25%	179	7.71E-04
6	0.85%	47	2.02E-04	14	6.05%	333	1.44E-03	22	3.31%	182	7.86E-04
7	3.73%	205	8.85E-04	15	7.06%	388	1.67E-03	23	2.48%	136	5.89E-04
8	7.77%	427	1.84E-03	16	7.18%	395	1.70E-03	24	1.87%	103	4.43E-04
								Total		5,500	

Alexandria District Life Science, San Carlos, CA - Off-Site Residential
Cumulative Operation - Old County Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2021

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
FUG_NB_OLD	Old Country Road Northbound	NB	1	851.3	0.53	9.7	32	1.3	35	5,500	8,222	88,496	9.13E-08	6.73E-08	2.6	1.21
FUG_SB_OLD	Old Country Road Southbound	SB	1	851.0	0.53	9.7	32	1.3	35	5,500	8,219	88,464	9.13E-08	6.73E-08	2.6	1.21
									Total	11,000						

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)	0.00542			
Road Dust - Emissions per Vehicle (g/VMT)	0.01482			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02230			

Emisson Factors from CT-EMFAC2017

2021 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_OLD

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.12%	62	2.03E-04	9	7.12%	392	1.28E-03	17	7.43%	409	1.34E-03
2	0.42%	23	7.49E-05	10	4.38%	241	7.90E-04	18	8.23%	453	1.48E-03
3	0.37%	20	6.70E-05	11	4.65%	256	8.38E-04	19	5.72%	315	1.03E-03
4	0.17%	9	3.07E-05	12	5.89%	324	1.06E-03	20	4.31%	237	7.76E-04
5	0.45%	25	8.12E-05	13	6.17%	340	1.11E-03	21	3.25%	179	5.86E-04
6	0.85%	47	1.54E-04	14	6.05%	333	1.09E-03	22	3.31%	182	5.97E-04
7	3.73%	205	6.72E-04	15	7.06%	388	1.27E-03	23	2.48%	136	4.47E-04
8	7.77%	427	1.40E-03	16	7.18%	395	1.29E-03	24	1.87%	103	3.37E-04
								Total		5,500	

2021 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_OLD

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.12%	62	2.03E-04	9	7.12%	392	1.28E-03	17	7.43%	409	1.34E-03
2	0.42%	23	7.49E-05	10	4.38%	241	7.90E-04	18	8.23%	453	1.48E-03
3	0.37%	20	6.70E-05	11	4.65%	256	8.38E-04	19	5.72%	315	1.03E-03
4	0.17%	9	3.07E-05	12	5.89%	324	1.06E-03	20	4.31%	237	7.75E-04
5	0.45%	25	8.12E-05	13	6.17%	340	1.11E-03	21	3.25%	179	5.86E-04
6	0.85%	47	1.54E-04	14	6.05%	333	1.09E-03	22	3.31%	182	5.97E-04
7	3.73%	205	6.72E-04	15	7.06%	388	1.27E-03	23	2.48%	136	4.47E-04
8	7.77%	427	1.40E-03	16	7.18%	395	1.29E-03	24	1.87%	103	3.36E-04
								Total		5,500	